

Global Quantitative Insights

April 2014

- **Continued Value Outperformance** — A second successive strong month for Value returns across all regions, to the detriment of Growth and Momentum. Estimates Momentum, our long preferred style, was relatively unaffected whilst, surprisingly, Value outperformance was accompanied by a solid month for Low Risk.
- **Macro Risk Continues to Fall** — As macro risks wane, the implicit Price Momentum biases are evolving and Value is becoming less negatively correlated to Price Momentum – Value is becoming less ‘anti-Momentum’.
- **Momentum Valuations Spreads Tight ... and Unsustainable** — Investors can ‘buy’ exposure to High Momentum for the same price as Low. This is unsustainable, in our view.
- **Selective Opportunities in Momentum Names** — Despite our continued preference for earnings leadership, we see potential for a short-term ‘bounce’ in selective Momentum names that have been sold off in Europe and the US.
- **Global Quant Research Conference, 19th – 20th June 2014** — Not signed up? Citi invites you to a two-day event in Valencia, Spain. With speakers from academia, investment management and other financial institutions our conference should appeal to a broad audience and also provide forum to network and meet global peers in the quant and risk space. [Click here for full agenda and registration.](#)

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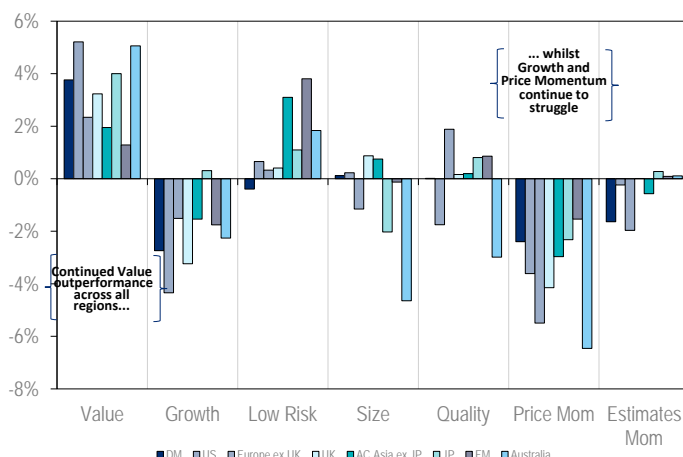
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Figure 1. Regional Style Performance Spreads, April 2014



Source: Citi Research, IBES, Worldscope, MSCI

See Appendix A-1 for Analyst Certification, Important Disclosures and non-US research analyst disclosures.

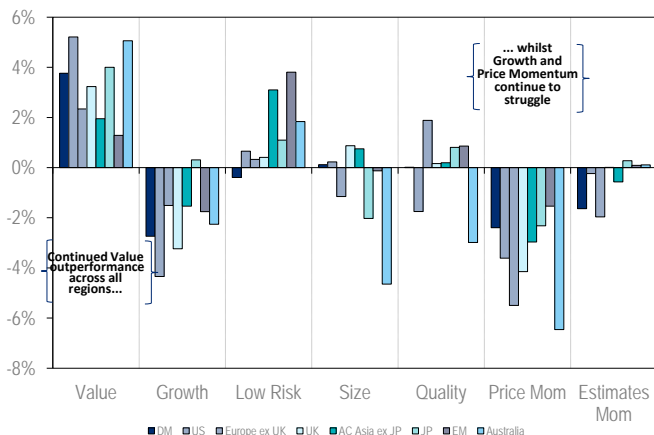
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In Focus - Charts of the Month

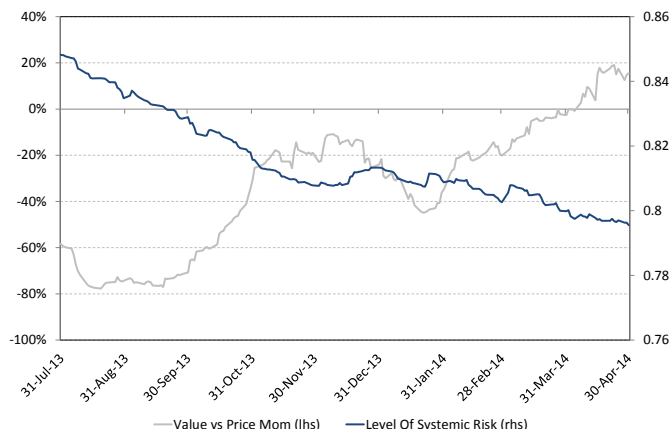
Figure 2. Regional Style Performance Spreads, April 2014 – Strong Value Performance, Earnings Leadership Still Offers Drawdown Protection



Source: Citi Research, IBES, Worldscope, MSCI

- A second strong month for Value as outperformance continued across all regions. As in March, strong Value returns were mainly to the detriment of Growth and Price Momentum.
- Interestingly, April's strong Value returns were accompanied by a general outperformance of Low Risk. This is in line with our view of a gradual decoupling of Value and (high) Risk over the past few years.
- Our long-held style preference, Estimates Momentum, was again relatively unaffected, adding support to our view that the style's low ex-post return volatility offers drawdown protection when the market is not focused on earnings leadership and fundamentals.

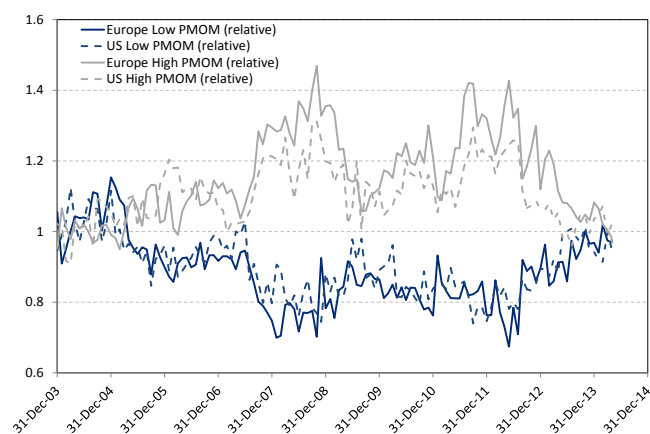
Figure 3. Macro Risk vs. Value/Momentum Long/Short Correlation (60 day), MSCI Europe



Source: Citi Research, Bloomberg

- Implicit biases within Price Momentum have evolved over the past 12 months.
- Price Momentum returns have been dominated by macro issues over the past few years and, as a consequence, have been negatively correlated to Value. A corollary of this, as macro risks wane, is that Price Momentum is becoming less negatively correlated to Value.
- Whilst this has been the case with Value and Earnings Leadership for some time now, and the foundation for our increasingly positive stance on Value, it is interesting to note the year-to-date increase in correlation with Momentum – it appears that Value is becoming less 'anti-Momentum'.

Figure 4. Price Momentum Relative Valuations. MSCI US and MSCI Europe-Short Term Opportunities In Selective Momentum Names



Source: Citi Research, MSCI, IBES, Worldscope

- As we highlighted in recent research¹, timing exposure to Price Momentum is critical and a large associated negative skew produces sharp drawdowns or 'Momentum shocks' as opposed to longer-term cyclical underperformance.
- Investors can currently 'buy' High Momentum for the same price as Low. This is the first time these valuation spreads have crossed over the past ten years and is something we believe is unsustainable.
- We see this as an opportunity and, despite our continued preference for Earnings Leadership, see potential for a short-term 'bounce' in some Momentum names that have been sold off recently in Europe and the US.

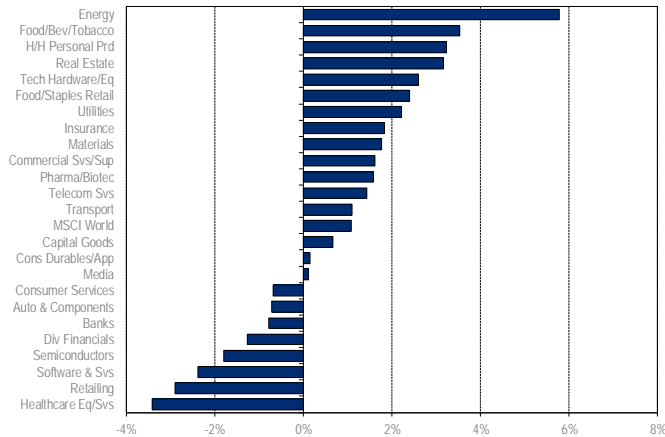
¹ Searching For Alpha: Timing Price Momentum, Citi Research, 7th March 2014

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Developed World

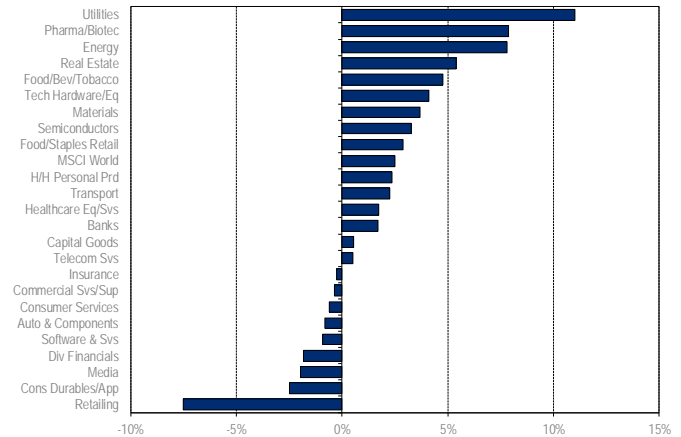
Developed World: What Has the Market Done?

Figure 5. One-Month Total USD Returns (Percentage)



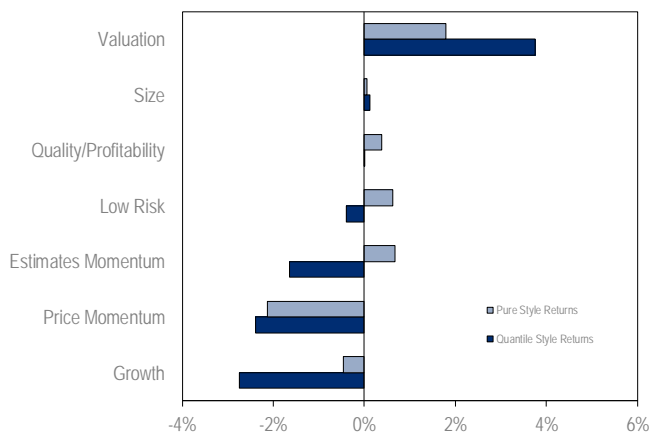
Source: Citi Research, IBES, Worldscope and MSCI

Figure 6. YTD Total USD Returns (Percentage)



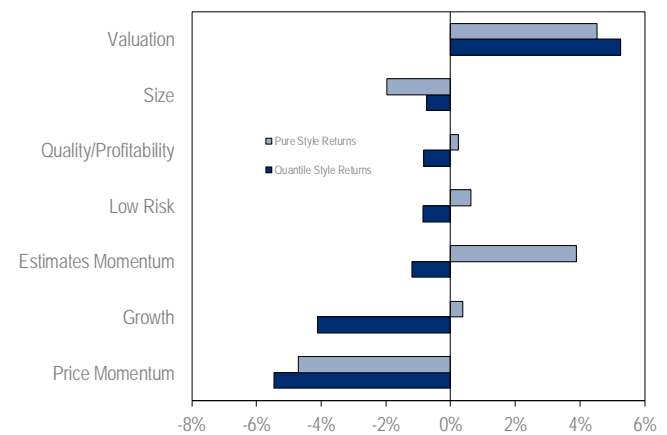
Source: Citi Research, IBES, Worldscope and MSCI

Figure 7. Style Performance Across Market, April 2014



Source: Citi Research, IBES, Worldscope and MSCI

Figure 8. Style Performance Across Market, YTD



Source: Citi Research, IBES, Worldscope and MSCI

Developed World: Last Month's Style Leaders and Laggards

Figure 9. Performance Spread Between High (Top 20%) and Low (Bottom 20%), and Pure Factor Portfolios

| | Quantile Perf. | Pure Perf. | North America | Europe | AsiaPac ex Japan | Japan |
|--|----------------|--------------|---------------|--------------|------------------|--------------|
| Valuation | 3.8% | 1.8% | 5.0% | 2.0% | 4.0% | 4.0% |
| Earnings Yield - 12 month forward | 2.0% | | 1.5% | 2.8% | 0.1% | 1.8% |
| Earnings Yield- 12 month historical | 2.7% | | 1.3% | 2.4% | 0.9% | 2.8% |
| Cash Flow To Price | 3.6% | | 5.5% | 2.0% | 2.9% | 3.6% |
| Dividend Yield | 5.5% | | 5.8% | 4.3% | 1.6% | 5.3% |
| Book to Price Ratio | 1.6% | | 2.4% | 1.8% | 4.6% | 2.1% |
| Sales to Price Ratio | 0.9% | | 2.7% | 0.6% | 1.7% | 1.5% |
| EBITDA / EV | 3.4% | | 3.5% | 2.2% | 5.3% | 4.1% |
| Sales / EV | 1.0% | | 1.7% | 0.2% | -0.3% | 5.0% |
| Growth | -2.7% | -0.5% | -3.7% | -2.0% | -2.0% | 0.3% |
| Earnings Growth (12 month forward) | -1.7% | | -1.1% | -2.4% | -1.9% | -2.1% |
| SB Growth-Value Score | -2.1% | | -2.6% | -0.6% | -3.3% | -0.2% |
| One Year Sales Growth | -1.4% | | -1.7% | -2.2% | -0.7% | 0.8% |
| Long Term Earnings Growth | -3.8% | | -2.4% | -1.5% | -2.9% | -1.9% |
| One Year EPS Growth | -1.6% | | -0.8% | -3.6% | -1.7% | 0.8% |
| Low Risk | -0.4% | 0.6% | 0.4% | 0.1% | 0.1% | 1.1% |
| Debt to Equity (Inverted) | -1.3% | | -2.5% | 0.2% | 0.6% | 0.5% |
| Earnings Stability | -0.7% | | -1.5% | -1.2% | -1.1% | 1.3% |
| Beta against MSCI AC World | -1.7% | | 0.5% | -0.2% | 0.7% | -0.4% |
| Beta against MSCI Country Index | 1.1% | | 1.8% | 1.1% | -2.1% | 1.4% |
| Size (Market Cap) | 0.1% | 0.1% | -0.3% | -0.6% | -3.4% | -2.0% |
| Quality | 0.0% | 0.4% | -1.8% | 1.4% | -2.3% | 0.8% |
| Earnings Certainty | -0.3% | | -1.5% | 1.0% | -1.8% | 2.9% |
| Return on Equity | 0.5% | | -1.0% | -0.6% | -2.6% | 2.3% |
| Net Profit Margin on Sales | 0.6% | | -0.8% | 0.3% | 0.5% | 1.7% |
| Margin Growth | -0.3% | | -0.1% | -0.7% | -0.5% | -1.9% |
| Earnings Quality (Accruals) (Inverted) | 1.7% | | 3.0% | 1.1% | 0.6% | 0.2% |
| Balance Sheet Quality (NOA) (Inverted) | -1.5% | | -1.9% | -0.6% | -3.1% | -1.5% |
| Price Momentum | -2.4% | -2.1% | -3.0% | -5.0% | -5.9% | -2.3% |
| 3 months | 0.0% | | 0.4% | -2.4% | -2.7% | -1.7% |
| 12 months | -3.3% | | -3.7% | -4.6% | -5.6% | -1.0% |
| First 11 months | -3.3% | | -3.6% | -4.7% | -6.4% | -0.8% |
| Estimates Momentum | -1.6% | 0.7% | 0.4% | -1.0% | -2.4% | 0.3% |
| 1 Month Change in Earnings Forecast | -2.0% | | -0.6% | -3.1% | -3.1% | -0.8% |
| Earnings Revision | -1.3% | | 0.3% | -1.2% | -3.2% | -0.4% |
| Sales Revisions | -1.5% | | -0.1% | -1.0% | -0.0% | 1.0% |
| Cash Revisions | -0.6% | | 0.3% | -0.7% | -1.5% | -0.9% |

Source: Citi Research, IBES, Worldscope and MSCI

Note: That Quantile performance refers to the spread of returns between the top and bottom quintile of styles, while the Pure performance refers to style performance where others sources of risk exposure such as Country, Sector and other style exposure have been removed. Baskets with less than 5 stocks have been removed. See appendix for more information.

Developed World: YTD Leaders and Laggards

Figure 10. Performance Spread Between High (Top 20%) and Low (Bottom 20%), and Pure Factor Portfolios, YTD

| | Quantile Perf. | Pure Perf. | North America | Europe | AsiaPac ex Japan | Japan |
|--|----------------|--------------|---------------|--------------|------------------|--------------|
| Valuation | 5.3% | 4.5% | 5.7% | 6.9% | 4.1% | 4.6% |
| Earnings Yield - 12 month forward | 0.9% | | 0.3% | 4.1% | -0.9% | -1.0% |
| Earnings Yield- 12 month historical | 2.2% | | 0.7% | 0.1% | -3.5% | 2.9% |
| Cash Flow To Price | 5.3% | | 6.3% | 8.5% | 4.8% | 3.4% |
| Dividend Yield | 9.0% | | 6.4% | 4.2% | 3.2% | 12.1% |
| Book to Price Ratio | 1.7% | | 4.6% | 8.2% | 2.6% | 3.0% |
| Sales to Price Ratio | -1.8% | | 0.6% | 4.2% | 7.2% | 0.1% |
| EBITDA / EV | 5.2% | | 4.3% | 6.5% | 6.1% | 10.0% |
| Sales / EV | -1.7% | | -1.0% | 1.1% | 1.1% | 5.0% |
| Growth | -4.1% | 0.4% | -4.7% | -6.8% | -5.7% | 1.9% |
| Earnings Growth (12 month forward) | -0.8% | | -2.4% | 0.8% | 2.7% | -3.1% |
| SB Growth-Value Score | -4.8% | | -3.6% | -5.8% | -3.2% | 0.5% |
| One Year Sales Growth | -2.6% | | -3.8% | -4.9% | 0.6% | -0.4% |
| Long Term Earnings Growth | -10.5% | | -6.0% | -5.2% | -3.2% | -1.7% |
| One Year EPS Growth | -5.5% | | -3.5% | -9.1% | -4.1% | -1.2% |
| Low Risk | -0.9% | 0.6% | 1.7% | -3.1% | 1.4% | 10.8% |
| Debt to Equity (Inverted) | -2.5% | | -2.8% | -4.2% | -4.2% | 6.7% |
| Earnings Stability | -1.7% | | -4.6% | -2.9% | 3.4% | 0.3% |
| Beta against MSCI AC World | -4.2% | | 3.4% | -2.9% | -1.5% | 8.4% |
| Beta against MSCI Country Index | 3.7% | | 4.3% | -0.3% | -0.4% | 13.5% |
| Size (Market Cap) | -0.7% | -2.0% | -2.6% | -5.3% | -11.6% | -6.0% |
| Quality | -0.7% | 0.2% | -5.1% | 0.0% | -2.1% | 3.8% |
| Earnings Certainty | -1.7% | | -4.2% | -6.7% | 0.9% | 4.2% |
| Return on Equity | -1.1% | | -4.8% | -6.6% | -2.9% | 5.8% |
| Net Profit Margin on Sales | 1.0% | | -0.3% | -3.3% | -0.8% | 4.5% |
| Margin Growth | -0.5% | | 1.2% | -2.2% | -2.6% | -1.5% |
| Earnings Quality (Accruals) (Inverted) | 0.4% | | 1.1% | 2.1% | 3.5% | -0.3% |
| Balance Sheet Quality (NOA) (Inverted) | -0.7% | | -3.7% | 0.5% | -6.7% | 3.2% |
| Price Momentum | -5.5% | -4.7% | -7.4% | -6.0% | -4.5% | -8.0% |
| 3 months | -3.4% | | -4.9% | -3.9% | -1.7% | -3.7% |
| 12 months | -5.9% | | -7.0% | -5.5% | -4.7% | -6.8% |
| First 11 months | -5.6% | | -7.0% | -5.9% | -6.4% | -6.3% |
| Estimates Momentum | -1.2% | 3.9% | 3.7% | 3.1% | -3.4% | 1.0% |
| 1 Month Change in Earnings Forecast | -1.8% | | 0.5% | -0.3% | -0.0% | -3.5% |
| Earnings Revision | -2.2% | | 0.2% | 1.6% | -2.9% | -3.2% |
| Sales Revisions | -1.3% | | 2.2% | 2.2% | -5.4% | 3.1% |
| Cash Revisions | 1.0% | | 2.8% | 3.1% | -2.2% | -1.5% |

Source: Citi Research, IBES, Worldscope and MSCI

Note: That Quantile performance refers to the spread of returns between the top and bottom quintile of styles, while the Pure performance refers to style performance where others sources of risk exposure such as Country, Sector and other style exposure have been removed. Baskets with less than 5 stocks have been removed. See appendix for more information.

Developed World: Macro Factor Sensitivities²

Figure 11. GDP Weighted Global Bond Yield (G10)

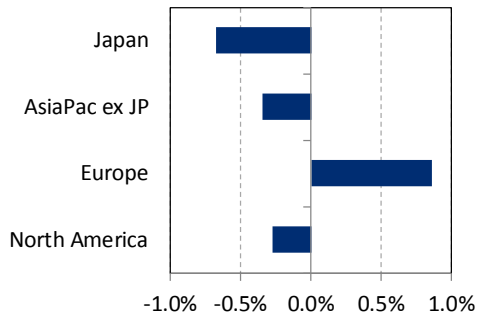


Figure 12. Oil

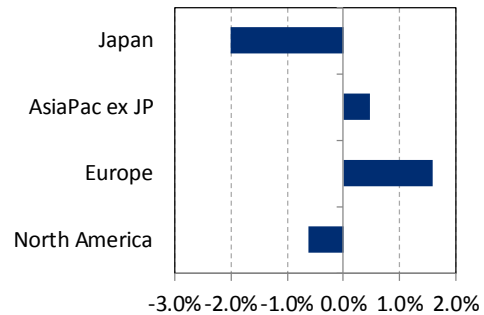


Figure 13. Commodities (GSCI)

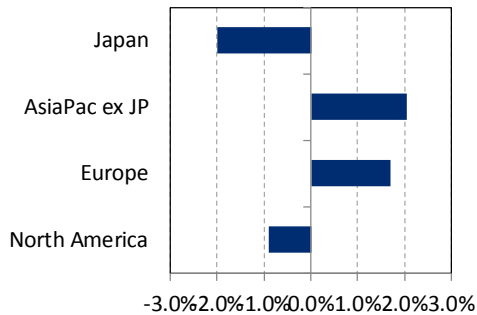


Figure 14. EUR per USD

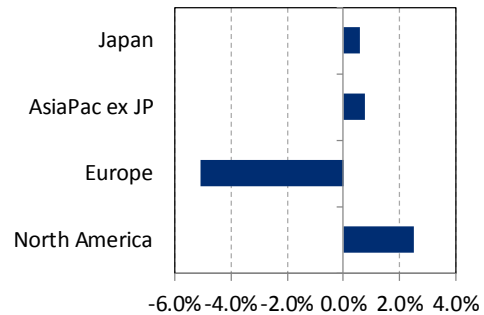


Figure 15. YEN per USD

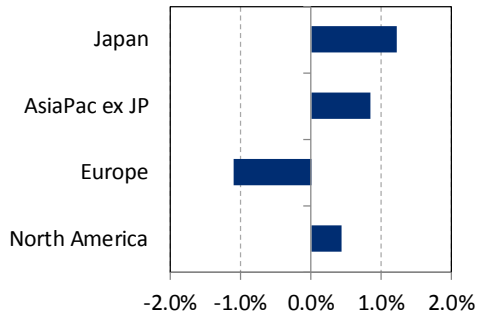


Figure 16. Emerging Market Sovereign Bond Yield

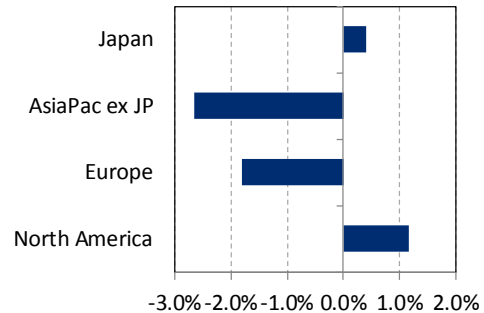


Figure 17. Credit Spreads

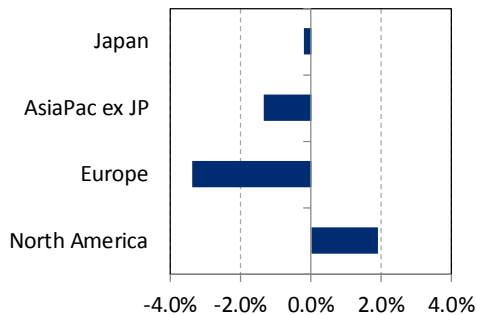
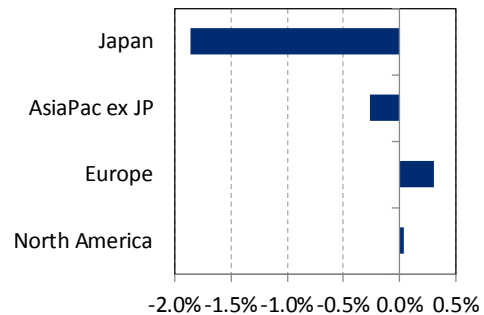


Figure 18. Market (MSCI AC World)



Source: Citi Research, MSCI

² The above charts illustrate predicted *relative returns* from our proprietary risk model (Global RAM) for a one standard deviation change in the underlying macroeconomic factor.

Developed World: Style Region Composition

Figure 19. Estimates Momentum

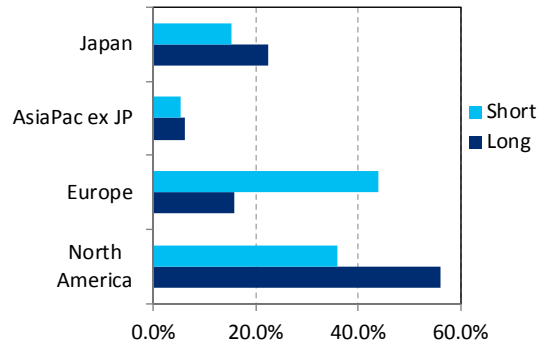


Figure 20. Growth

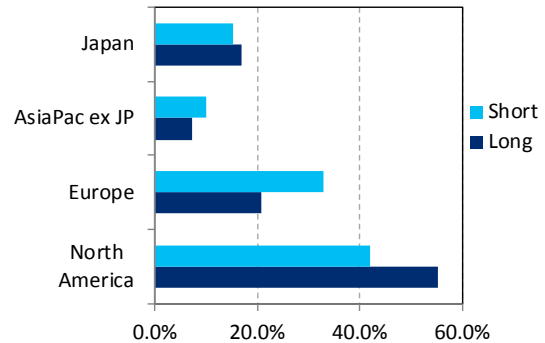


Figure 21. Value

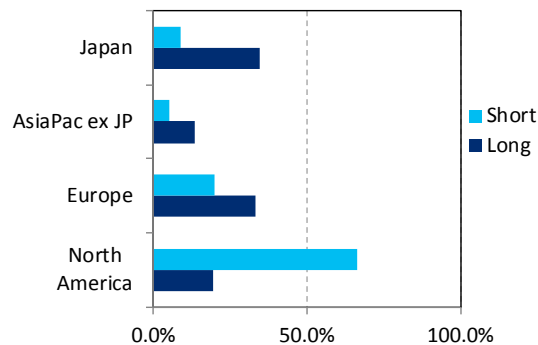


Figure 22. Low Risk

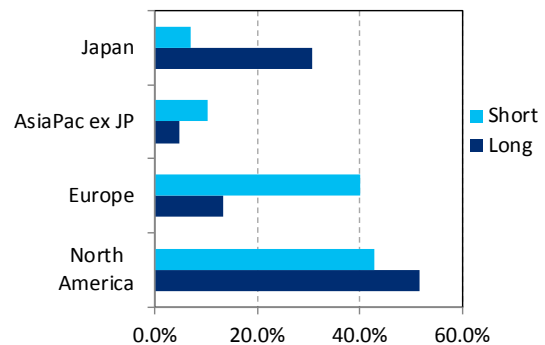


Figure 23. Size

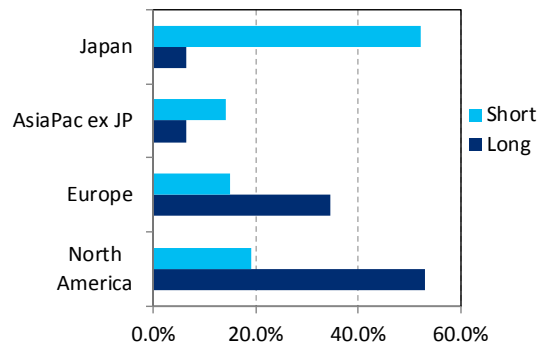


Figure 24. Price Momentum

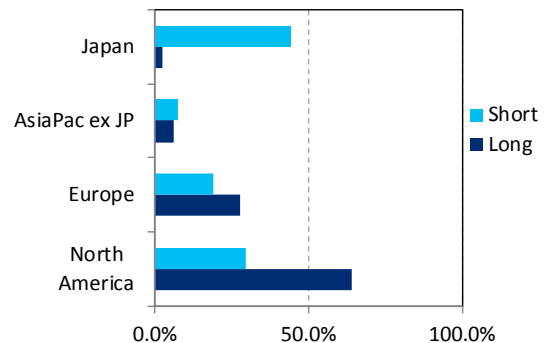
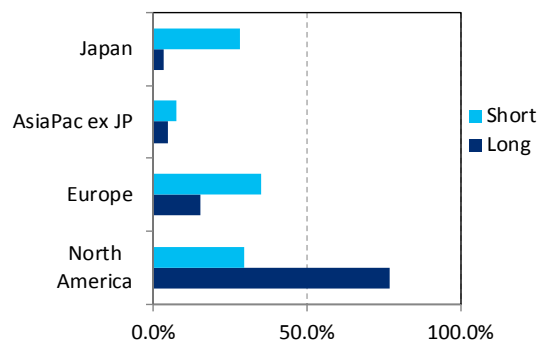


Figure 25. Quality



Style composition is defined as the proportion of each of the long and short style portfolios coming from the relevant regions, country or sector.

Source: Citi Research, MSCI, IBES, Worldscope, DataStream

Developed World: Relative Style Valuations

Figure 26. Estimates Momentum

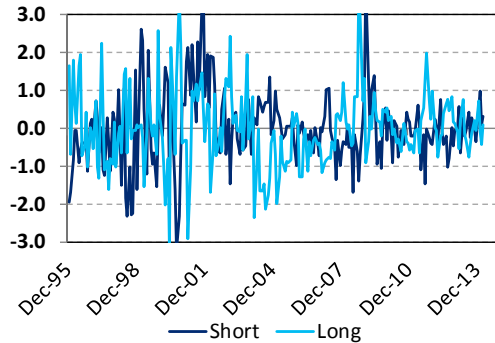


Figure 27. Growth

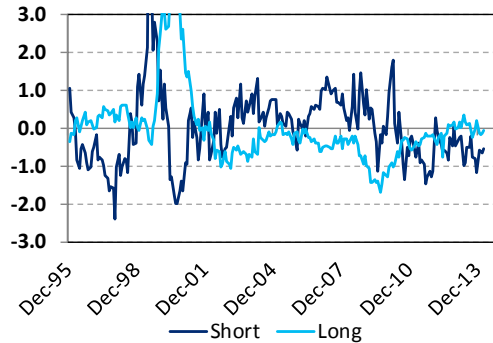


Figure 28. Value

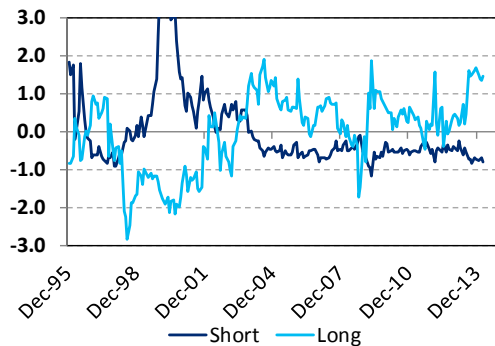


Figure 29. Low Risk

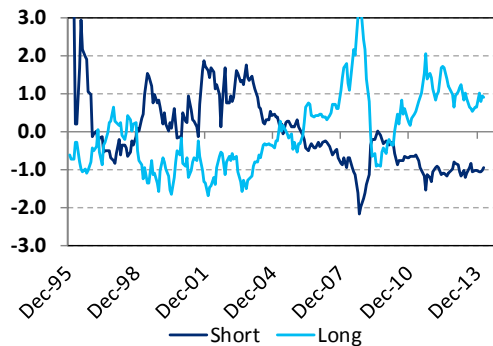


Figure 30. Size

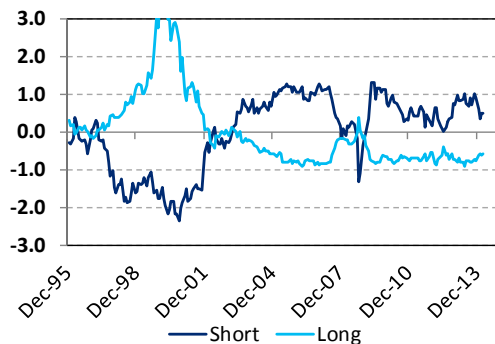


Figure 31. Price Momentum

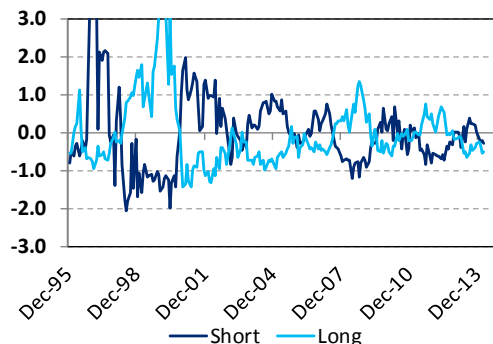
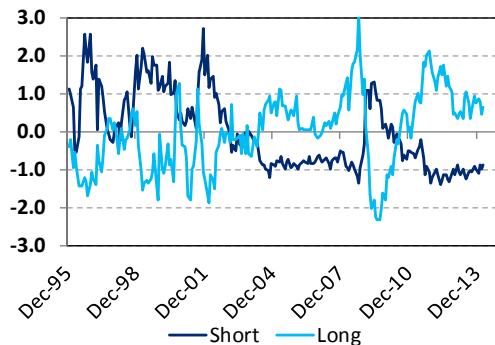


Figure 32. Quality



Relative style valuations calculated using median 12 month forward P/E of the respective long and short style quintiles relative to the benchmark median.

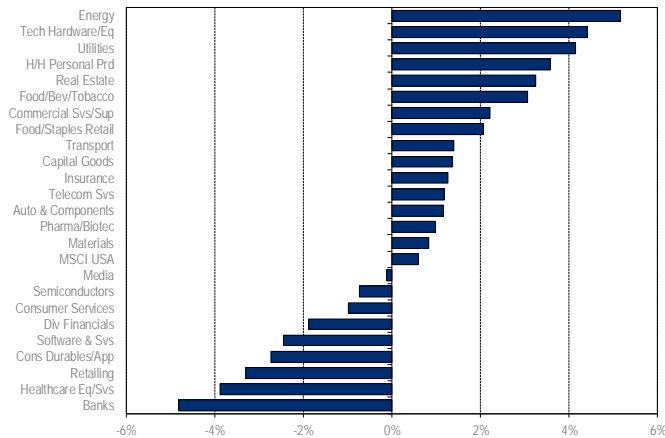
The charts show Z-scored time series for both the long and short relevant valuations. Axes are intentionally capped at ± 3 s.

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US

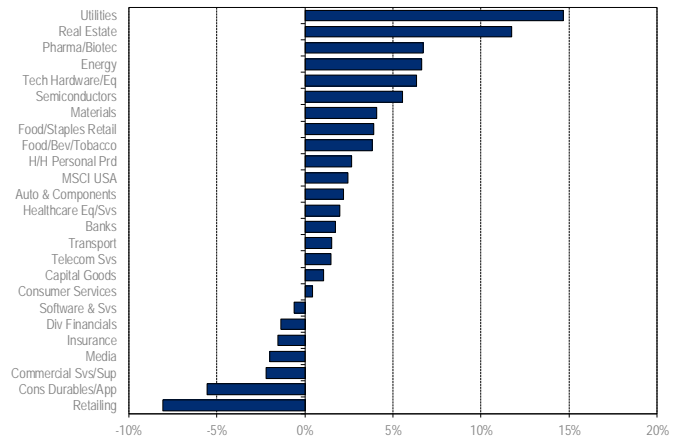
US: What Has the Market Done?

Figure 33. One-Month Total USD Returns (Percentage)



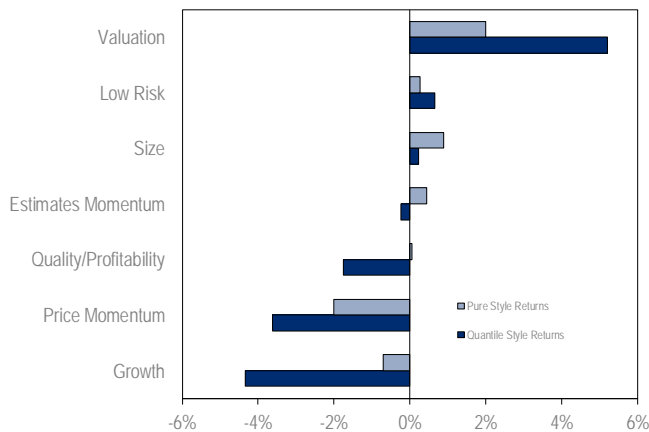
Source: Citi Research, IBES, Worldscope and MSCI

Figure 34. YTD Total USD Returns (Percentage)



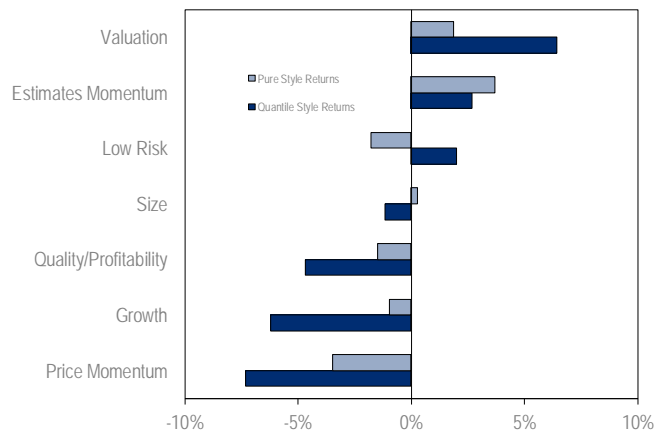
Source: Citi Research, IBES, Worldscope and MSCI

Figure 35. Style Performance Across Market, April 2014



Source: Citi Research, IBES, Worldscope and MSCI

Figure 36. Style Performance Across Market, YTD



Source: Citi Research, IBES, Worldscope and MSCI

US: Last Month's Style Leaders and Laggard

Figure 37. Performance Spread Between High (Top 20%) and Low (Bottom 20%), and Pure Factor Portfolios in April 2014

| | Quantile Perf. | Pure Perf. | Cons Disc | Cons Staples | Energy | Financials | Health Care | Industrials | Info Tech | Materials | Telcos | Utils |
|--|----------------|------------|-----------|--------------|--------|------------|-------------|-------------|-----------|-----------|--------|-------|
| Valuation | 5.2% | 2.0% | 6.5% | 2.5% | -0.5% | 3.8% | -0.4% | 1.7% | 8.6% | 0.8% | 12.6% | 3.8% |
| Earnings Yield - 12 month forward | 2.0% | | 3.2% | 4.8% | -1.5% | -3.1% | -1.5% | -0.0% | 10.7% | 0.3% | 9.1% | 0.6% |
| Earnings Yield- 12 month historical | 2.3% | | 2.6% | 6.5% | -1.5% | -1.3% | 1.9% | 2.0% | 8.1% | 1.8% | 5.6% | 0.9% |
| Cash Flow To Price | 6.6% | | 4.0% | 3.3% | -0.2% | | 1.6% | 2.4% | 8.3% | 0.4% | 12.6% | 3.7% |
| Dividend Yield | 5.8% | | 2.5% | 6.8% | -2.2% | 4.7% | 0.6% | 3.7% | 5.4% | 6.2% | 6.0% | 4.8% |
| Book to Price Ratio | 3.2% | | 4.2% | -3.2% | -2.2% | -0.1% | -2.0% | -0.5% | 6.2% | -1.9% | 1.0% | 4.5% |
| Sales to Price Ratio | 3.7% | | 4.5% | -0.5% | 5.1% | | -2.2% | -1.4% | 8.2% | 0.8% | 12.6% | 4.4% |
| EBITDA / EV | 4.3% | | 3.1% | 3.7% | -0.5% | | 0.7% | 0.4% | 9.6% | -0.0% | 5.6% | 2.0% |
| Sales / EV | 2.6% | | 4.4% | -1.3% | 2.6% | | 0.6% | -0.7% | 8.8% | 1.7% | -1.6% | 1.1% |
| Growth | -4.3% | -0.7% | -5.4% | -2.6% | -0.8% | -3.1% | 0.1% | -1.3% | -2.4% | -1.0% | -11.6% | -3.5% |
| Earnings Growth (12 month forward) | -1.9% | | -1.8% | -5.3% | 0.6% | -3.7% | 0.8% | -1.6% | -3.4% | 0.5% | 0.6% | -0.0% |
| SB Growth-Value Score | -3.4% | | -4.7% | -1.3% | -0.0% | -0.5% | -2.9% | -1.6% | -3.6% | 1.1% | -5.7% | -0.3% |
| One Year Sales Growth | -2.6% | | -4.0% | -5.2% | 0.0% | | 1.0% | 0.0% | -5.0% | -1.0% | -13.5% | -0.5% |
| Long Term Earnings Growth | -2.5% | | -3.1% | -3.7% | -6.0% | -1.1% | -0.8% | -3.6% | -0.5% | -3.8% | 5.3% | 0.5% |
| One Year EPS Growth | -1.3% | | -3.5% | -1.1% | -0.1% | 0.4% | 3.0% | -4.3% | 1.3% | -1.3% | 6.8% | -3.0% |
| Low Risk | 0.7% | 0.3% | -0.7% | -2.3% | -3.7% | 2.4% | 5.0% | 0.1% | 0.3% | 0.5% | 10.6% | -0.4% |
| Debt to Equity (Inverted) | -2.8% | | -1.2% | -7.8% | -3.3% | | -0.7% | -1.7% | 0.9% | -0.1% | 0.3% | 0.3% |
| Earnings Stability | -1.0% | | -0.2% | -1.3% | -2.0% | -3.6% | 3.6% | -2.1% | 1.0% | -2.2% | -4.1% | -2.6% |
| Beta against MSCI AC World | 0.9% | | 0.8% | -0.5% | 0.7% | 3.0% | 3.9% | 1.9% | 0.5% | -0.4% | 1.9% | 0.8% |
| Beta against MSCI Country Index | 1.6% | | -1.2% | -2.9% | 2.1% | 2.6% | 1.8% | 2.0% | -0.8% | 0.4% | 1.9% | 0.2% |
| Size (Market Cap) | 0.2% | 0.9% | 0.5% | 0.7% | 0.9% | -1.8% | -2.4% | -0.6% | 3.7% | 0.8% | -6.0% | -3.1% |
| Quality | -1.7% | 0.1% | -0.5% | 5.2% | -1.0% | -3.3% | 3.3% | -0.2% | 2.2% | -0.7% | 7.5% | -1.6% |
| Earnings Certainty | -0.9% | | 0.4% | 1.7% | -4.3% | -4.0% | 0.1% | 0.9% | 5.0% | -1.0% | 5.6% | -2.4% |
| Return on Equity | -0.3% | | -2.0% | 3.2% | -2.9% | -0.7% | 3.6% | 0.6% | 6.0% | 2.9% | 0.4% | -3.7% |
| Net Profit Margin on Sales | -1.1% | | -2.1% | 2.8% | -5.1% | | 0.1% | 1.3% | 2.0% | 0.7% | 5.6% | -3.2% |
| Margin Growth | -0.1% | | -1.4% | 3.6% | -2.5% | -0.1% | 0.1% | -1.7% | -1.1% | 0.2% | 3.7% | -3.1% |
| Earnings Quality (Accruals) (Inverted) | 2.4% | | 3.3% | -0.7% | 2.9% | | 2.6% | 0.0% | 1.9% | 1.9% | 14.5% | 4.7% |
| Balance Sheet Quality (NOA) (Inverted) | -2.9% | | -2.1% | 5.2% | 2.6% | | 0.1% | -0.9% | -5.0% | 1.7% | 7.5% | 0.1% |
| Price Momentum | -3.6% | -2.0% | -1.2% | -5.0% | 0.1% | -4.2% | -1.5% | -5.3% | -1.1% | -0.4% | -0.4% | -6.2% |
| 3 months | 0.4% | | -2.6% | -7.1% | -2.9% | 4.3% | 0.5% | -3.6% | 0.0% | 0.5% | 13.1% | -2.0% |
| 12 months | -4.2% | | -1.8% | -5.3% | -0.6% | -6.1% | -4.6% | -5.2% | 0.2% | -0.9% | -5.4% | -2.3% |
| First 11 months | -4.2% | | -1.7% | -4.4% | 0.1% | -6.0% | -3.6% | -2.9% | 1.2% | 1.2% | -5.4% | -2.3% |
| Estimates Momentum | -0.2% | 0.4% | -0.7% | -1.6% | -1.8% | 1.5% | 1.2% | -1.0% | -0.9% | 0.8% | -13.5% | 1.1% |
| 1 Month Change in Earnings Forecast | -0.5% | | -2.8% | -1.3% | 1.8% | 1.5% | -0.7% | -2.2% | -4.0% | 0.8% | -3.8% | -0.0% |
| Earnings Revision | -0.2% | | -0.9% | -2.0% | -0.1% | 1.9% | -2.0% | -0.7% | -0.3% | 1.4% | -8.2% | -2.0% |
| Sales Revisions | -0.3% | | 0.1% | -2.5% | -0.9% | | 1.1% | 0.8% | -1.5% | -1.6% | -13.5% | 1.1% |
| Cash Revisions | 0.1% | | -1.1% | 1.3% | -0.2% | | 0.4% | -1.0% | -3.2% | 1.4% | 0.9% | 3.6% |

Source: Citi Research, IBES, Worldscope and MSCI

Note: That Quantile performance refers to the spread of returns between the top and bottom quintile of styles, while the Pure performance refers to style performance where others sources of risk exposure such as Country, Sector and other style exposure have been removed. Baskets with less than 5 stocks have been removed. See appendix for more information.

US: YTD Leaders and Laggards

Figure 38. Performance Spread Between High (Top 20%) and Low (Bottom 20%), and Pure Factor Portfolios, YTD

| | Quantile Perf. | Pure Perf. | Cons Disc | Cons Staples | Energy | Financials | Health Care | Industrials | Info Tech | Materials | Telcos | Utils |
|--|----------------|------------|-----------|--------------|--------|------------|-------------|-------------|-----------|-----------|--------|-------|
| Valuation | 6.4% | 1.9% | -1.7% | -0.3% | -3.5% | 13.2% | -5.6% | 5.3% | 12.1% | -0.2% | 27.4% | 2.9% |
| Earnings Yield - 12 month forward | 0.5% | | -2.1% | 4.6% | -8.2% | -13.7% | -3.8% | 10.9% | 17.8% | -7.2% | 19.1% | 1.8% |
| Earnings Yield- 12 month historical | 2.5% | | -3.5% | 0.7% | -7.3% | -8.1% | 0.4% | 10.2% | 13.5% | -2.9% | -10.2% | 4.2% |
| Cash Flow To Price | 7.5% | | -2.2% | 10.6% | 3.5% | | -2.4% | 2.4% | 10.6% | -5.1% | 41.3% | 6.2% |
| Dividend Yield | 7.5% | | 2.5% | -1.9% | -13.5% | 16.3% | -0.7% | 3.0% | 2.8% | 4.6% | 12.4% | 5.9% |
| Book to Price Ratio | 5.6% | | -2.6% | 6.9% | -4.5% | 4.1% | 0.4% | -3.3% | 12.7% | -2.6% | 14.3% | 4.6% |
| Sales to Price Ratio | 1.7% | | -4.3% | -2.2% | 2.2% | | -8.1% | 2.5% | 12.9% | -1.2% | 44.1% | 5.3% |
| EBITDA / EV | 4.9% | | 0.9% | 4.5% | -1.8% | | -3.3% | 4.3% | 8.6% | -4.9% | 31.8% | 4.0% |
| Sales / EV | 0.3% | | -3.3% | -0.7% | -2.0% | | -4.9% | 3.1% | 12.4% | 0.5% | 11.3% | 3.4% |
| Growth | -6.2% | -1.0% | -6.6% | -1.1% | 0.8% | -7.5% | -1.3% | -4.0% | -7.8% | 0.3% | -24.1% | -8.0% |
| Earnings Growth (12 month forward) | -3.3% | | 2.9% | -1.1% | -7.2% | -8.1% | 8.7% | -3.4% | 0.0% | -2.0% | -8.7% | -5.1% |
| SB Growth-Value Score | -4.6% | | -2.6% | -3.5% | 7.4% | -4.2% | -1.0% | -5.3% | -8.0% | 1.4% | -3.0% | 3.7% |
| One Year Sales Growth | -5.8% | | -0.4% | -5.5% | -7.1% | | -4.9% | 0.1% | -11.8% | 2.5% | -14.9% | 0.1% |
| Long Term Earnings Growth | -6.5% | | 2.0% | -4.1% | -3.8% | -8.5% | -5.4% | -7.4% | -2.3% | 0.7% | 14.4% | -1.6% |
| One Year EPS Growth | -5.0% | | -5.1% | 0.1% | -3.4% | -4.3% | -2.4% | -1.3% | -8.9% | 4.2% | 10.0% | -6.5% |
| Low Risk | 2.0% | -1.8% | -1.9% | 0.3% | -15.5% | 1.1% | 12.0% | -0.4% | -6.5% | -0.4% | 5.9% | -0.4% |
| Debt to Equity (Inverted) | -2.9% | | -7.3% | -0.1% | -2.6% | | -1.0% | -3.3% | 0.4% | 2.3% | -0.5% | 2.5% |
| Earnings Stability | -3.9% | | 1.7% | -4.8% | -5.4% | -5.7% | 0.2% | -7.1% | -4.0% | -4.5% | -5.8% | -0.6% |
| Beta against MSCI AC World | 4.1% | | -1.7% | 0.3% | -12.4% | 0.3% | 8.4% | 1.4% | -1.3% | 1.2% | -9.0% | -0.4% |
| Beta against MSCI Country Index | 4.2% | | -3.7% | 3.3% | -12.0% | 1.2% | 8.1% | 0.1% | -4.9% | 2.4% | -3.8% | -1.7% |
| Size (Market Cap) | -1.2% | 0.3% | -0.5% | 0.4% | -1.0% | -4.6% | -2.7% | 0.2% | 4.1% | -1.2% | -20.2% | -2.0% |
| Quality | -4.7% | -1.5% | -0.2% | -4.8% | -6.9% | -11.8% | -2.1% | 3.1% | -6.2% | -4.0% | 5.2% | -2.0% |
| Earnings Certainty | -3.9% | | 0.6% | 0.0% | 0.1% | -12.7% | -5.3% | 0.3% | 0.2% | -1.6% | 10.6% | -2.7% |
| Return on Equity | -4.2% | | 0.3% | 0.5% | -9.1% | -4.0% | -2.3% | 3.5% | -0.9% | 3.3% | -5.4% | -7.0% |
| Net Profit Margin on Sales | -1.2% | | 1.1% | 2.6% | -5.8% | | -1.9% | -0.2% | -0.1% | -2.1% | 7.0% | -6.3% |
| Margin Growth | 2.2% | | 6.9% | 3.3% | -6.9% | 1.7% | 1.8% | -1.7% | 6.9% | 1.0% | -0.1% | 2.2% |
| Earnings Quality (Accruals) (Inverted) | 0.5% | | 0.1% | 1.5% | -2.3% | | -4.1% | 3.5% | -2.2% | 9.2% | 16.2% | 2.8% |
| Balance Sheet Quality (NOA) (Inverted) | -4.1% | | -1.3% | -11.4% | -1.5% | | 1.0% | 4.1% | -9.3% | -1.6% | 5.2% | 0.1% |
| Price Momentum | -7.3% | -3.5% | -3.1% | 1.4% | 5.4% | -15.8% | -1.5% | -0.0% | -4.9% | -5.0% | -11.0% | -7.6% |
| 3 months | -3.7% | | -1.8% | -2.4% | -5.7% | -6.8% | -3.9% | 3.2% | -6.3% | -2.1% | 12.9% | -2.1% |
| 12 months | -7.7% | | 1.3% | 2.3% | 11.8% | -15.9% | -2.9% | -3.7% | -3.0% | -3.6% | 3.2% | -2.7% |
| First 11 months | -7.9% | | -1.0% | 2.8% | 10.7% | -16.1% | -3.4% | -0.4% | -1.9% | -1.3% | 3.2% | -2.3% |
| Estimates Momentum | 2.7% | 3.7% | -0.5% | 5.8% | 0.0% | 0.4% | 5.9% | 3.8% | 0.2% | 8.6% | -12.9% | 4.3% |
| 1 Month Change in Earnings Forecast | 0.9% | | -2.8% | 5.8% | 3.0% | -1.0% | 4.9% | 1.1% | -1.4% | 11.1% | -13.4% | 0.7% |
| Earnings Revision | 0.2% | | 0.1% | 1.0% | 1.6% | 1.0% | 6.6% | 1.1% | -0.2% | 4.9% | -1.1% | 3.1% |
| Sales Revisions | 1.9% | | -3.0% | 5.1% | -1.9% | | 1.7% | 4.3% | -0.2% | 2.8% | -8.2% | 1.8% |
| Cash Revisions | 3.1% | | 4.7% | -3.1% | 2.3% | | 4.4% | 2.7% | -5.0% | 8.4% | 0.9% | 4.7% |

Source: Citi Research, IBES, Worldscope and MSCI

Note: That Quantile performance refers to the spread of returns between the top and bottom quintile of styles, while the Pure performance refers to style performance where others sources of risk exposure such as Country, Sector and other style exposure have been removed. Baskets with less than 5 stocks have been removed. See appendix for more information.

US: Macro Factor Sensitivities³

Figure 39. GDP Weighted Global Bond Yield (G10)

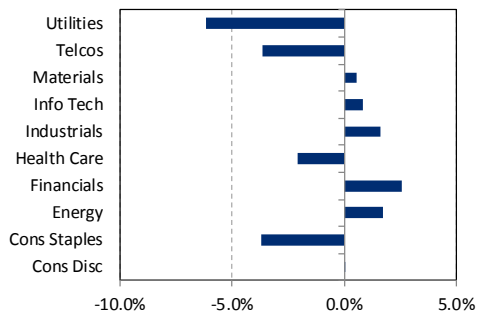


Figure 40. Oil

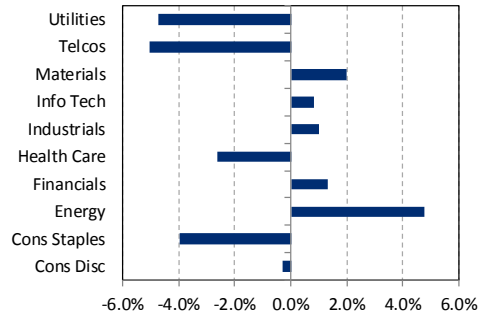


Figure 41. Commodities (GSCI)

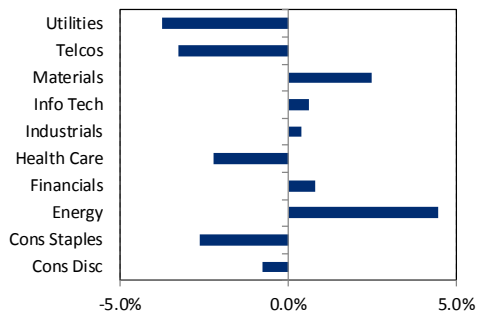


Figure 42. EUR per USD

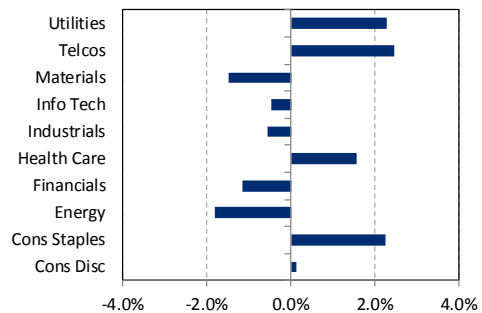


Figure 43. YEN per USD

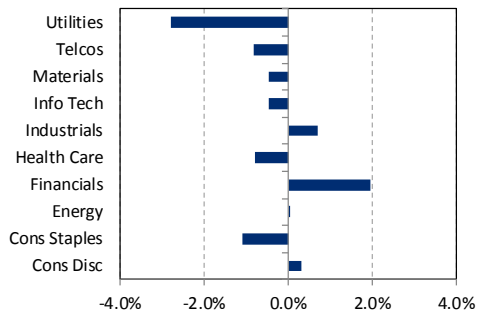


Figure 44. Emerging Market Sovereign Bond Yield

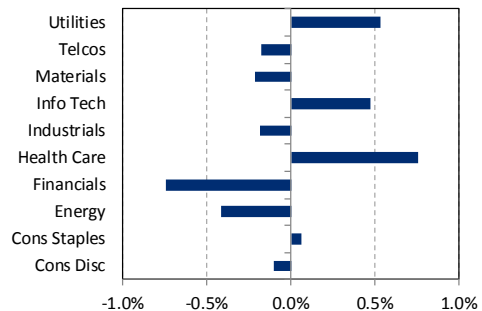


Figure 45. Credit Spreads

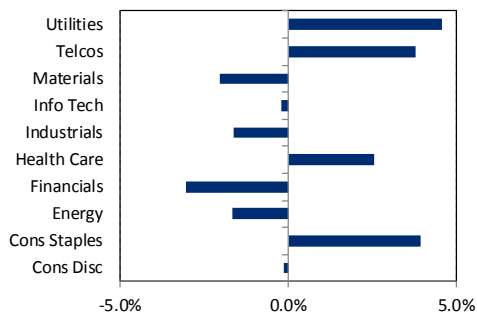
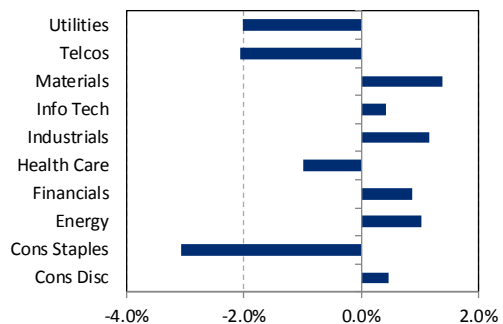


Figure 46. Market (MSCI AC World)



Source: Citi Research, MSCI

³ The above charts illustrate predicted *relative returns* from our proprietary risk model (Global RAM) for a one standard deviation change in the underlying macroeconomic factor.

US: Style Sector Composition

Figure 47. Estimates Momentum

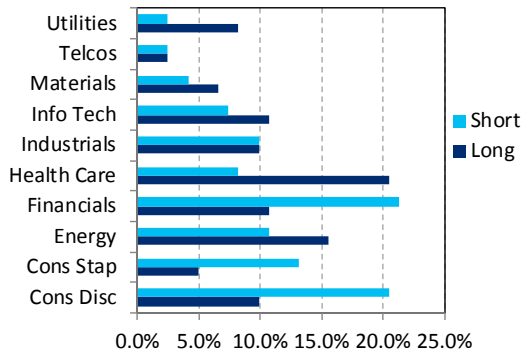


Figure 48. Growth

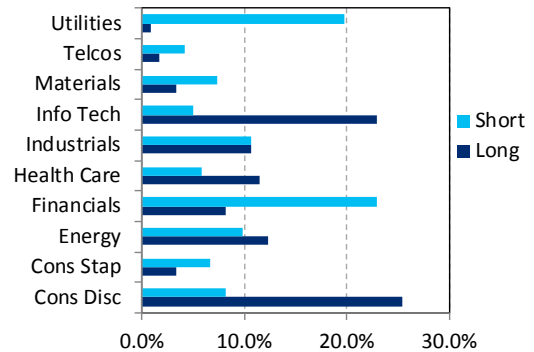


Figure 49. Value

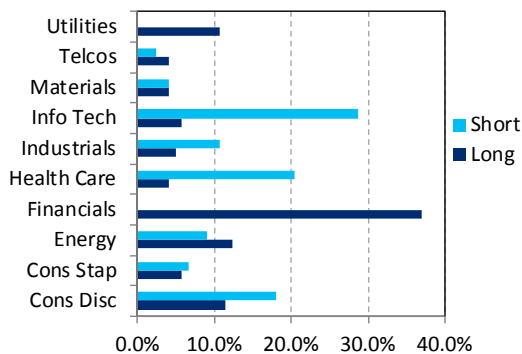


Figure 50. Low Risk

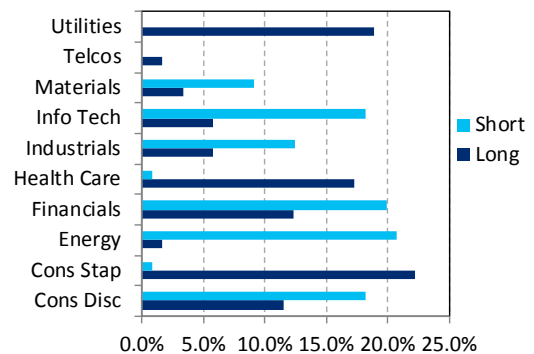


Figure 51. Size

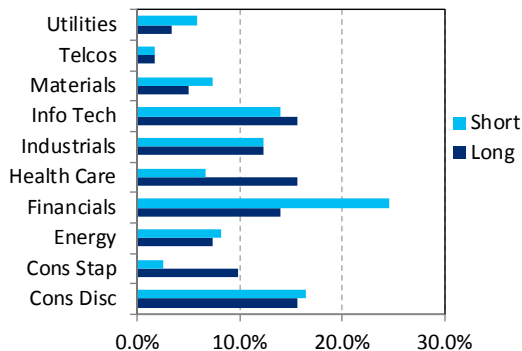


Figure 52. Price Momentum

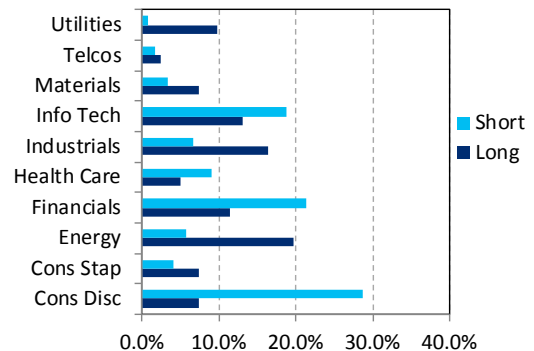
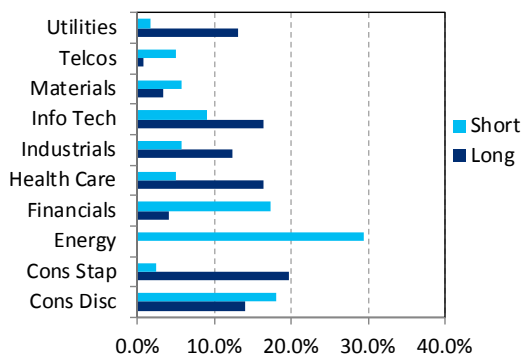


Figure 53. Quality



Style composition is defined as the proportion of each of the long and short style portfolios coming from the relevant regions, country or sector.

Source: Citi Research, MSCI, IBES, Worldscope, DataStream

US: Relative Style Valuations

Figure 54. Estimates Momentum

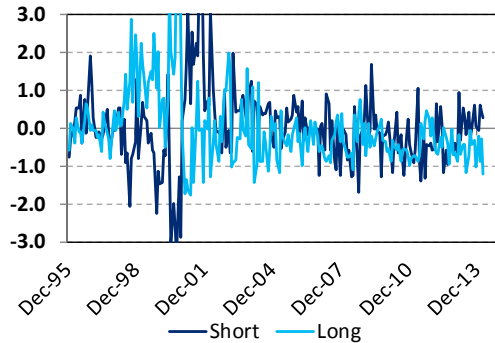


Figure 55. Growth

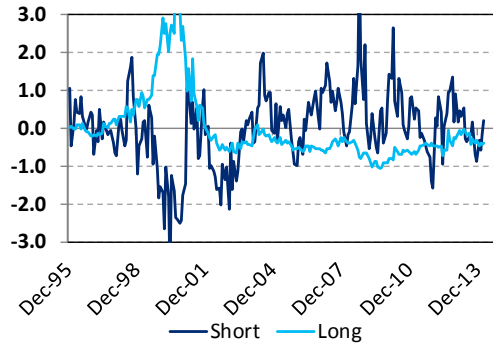


Figure 56. Value

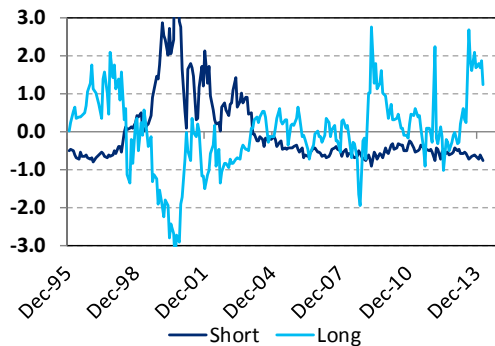


Figure 57. Low Risk



Figure 58. Size



Figure 59. Price Momentum

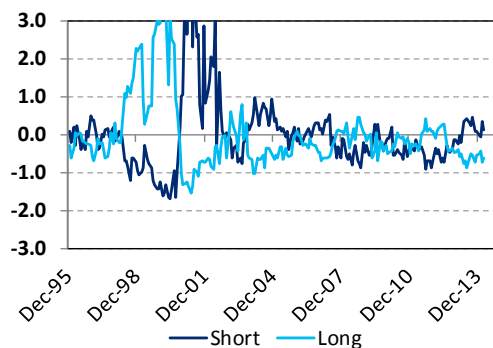
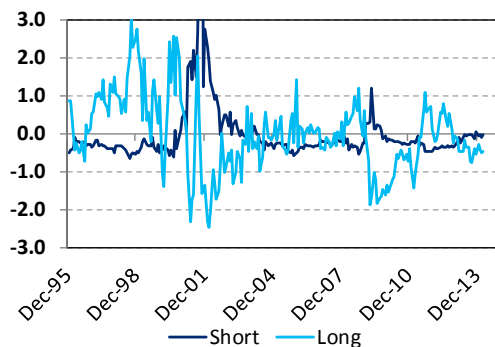


Figure 60. Quality



Relative style valuations calculated using median 12 month forward P/E of the respective long and short style quintiles relative to the benchmark median.

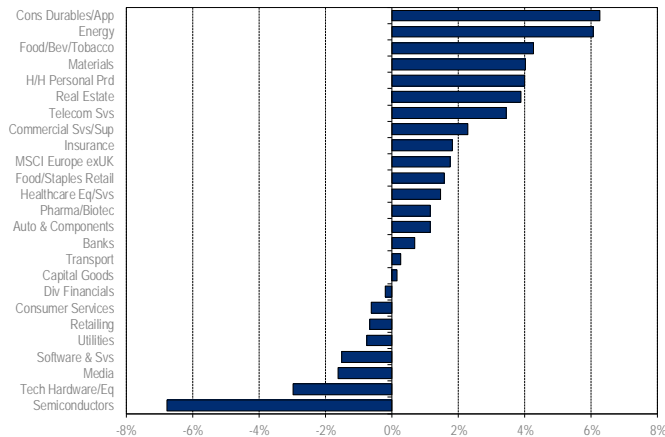
The charts show Z-scored time series for both the long and short relevant valuations. Axes are intentionally capped at ± 3 s.

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Europe ex UK

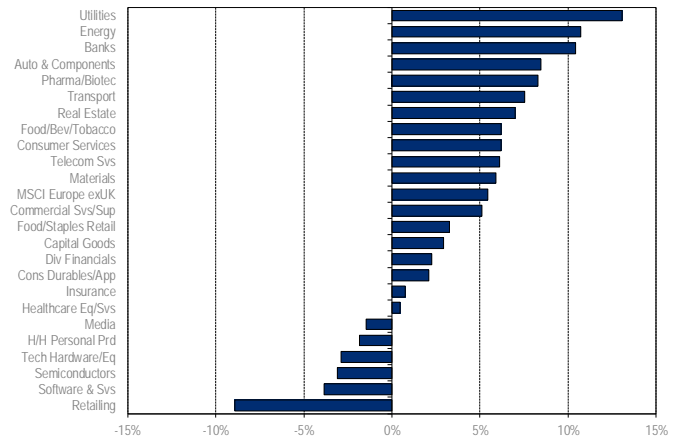
Europe ex UK: What Has the Market Done?

Figure 61 One-Month Total USD Returns



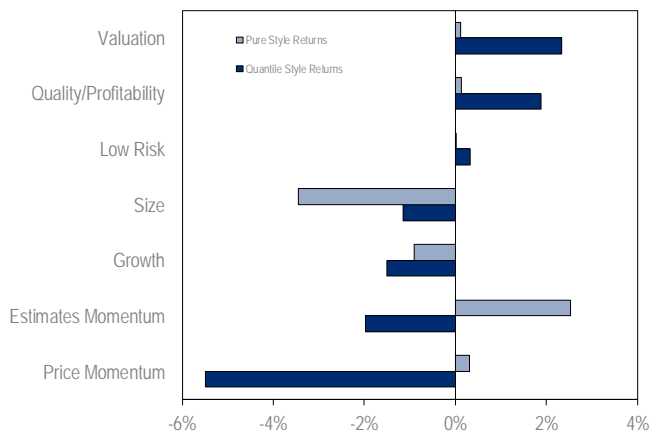
Source: Citi Research, MSCI

Figure 62. YTD USD Total Returns



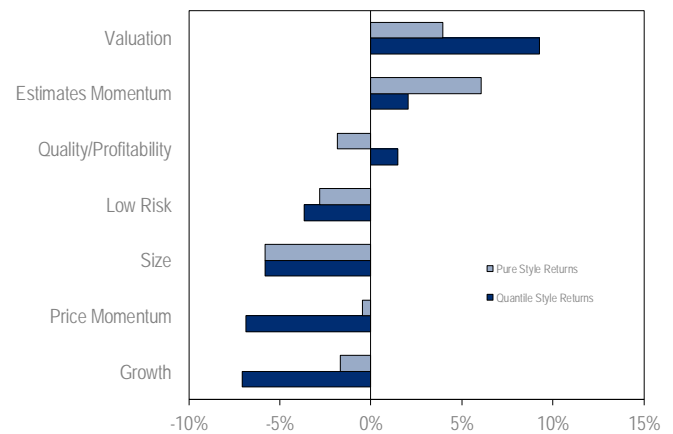
Source: Citi Research, MSCI

Figure 63. Style Performance Across Market, April 2014



Source: Citi Research, IBES, Worldscope and MSCI

Figure 64. Style Performance Across Market, YTD



Source: Citi Research, IBES, Worldscope and MSCI

Europe ex UK: Last Month's Style Leaders and Laggards

Figure 65. Performance Spread Between High (Top 20%) and Low (Bottom 20%), and Pure Factor Portfolios in April 2014

| | Quantile Perf. | Pure Perf. | Cons Disc | Cons Staples | Energy | Financials | Health Care | Industrials | Info Tech | Materials | Telcos | Utils |
|--|----------------|------------|-----------|--------------|--------|------------|-------------|-------------|-----------|-----------|--------|-------|
| Valuation | 2.3% | 0.1% | 7.7% | -6.1% | 3.1% | 2.7% | 0.1% | 2.9% | 0.2% | -0.9% | 4.9% | -3.8% |
| Earnings Yield - 12 month forward | 2.2% | | 5.0% | -7.0% | 3.2% | 3.1% | 2.7% | 4.5% | -5.0% | -0.9% | 8.3% | 1.6% |
| Earnings Yield- 12 month historical | 2.0% | | 4.1% | -3.9% | 0.6% | 2.6% | 1.4% | 8.1% | -1.8% | -0.2% | 3.4% | -2.3% |
| Cash Flow To Price | 1.5% | | 1.6% | -4.2% | 0.1% | | 0.4% | 3.6% | -2.9% | -0.1% | 3.0% | -3.2% |
| Dividend Yield | 3.2% | | 5.1% | -2.3% | 0.9% | 3.0% | -0.8% | 10.1% | -3.7% | 0.9% | 3.0% | 0.1% |
| Book to Price Ratio | 1.4% | | 4.9% | -5.8% | 7.0% | -0.0% | 1.3% | 2.6% | -2.7% | 2.1% | 3.4% | -2.7% |
| Sales to Price Ratio | 1.1% | | 3.0% | -2.7% | 4.5% | | 0.4% | 3.5% | -1.6% | -2.9% | 4.2% | -2.6% |
| EBITDA / EV | 1.6% | | 1.0% | -5.6% | 6.5% | | -0.8% | 3.7% | -1.8% | -1.6% | 3.3% | -4.0% |
| Sales / EV | 1.7% | | 4.2% | -3.7% | 6.9% | | 1.9% | 1.6% | -1.6% | -2.6% | 3.8% | -3.5% |
| Growth | -1.5% | -0.9% | -4.8% | 2.7% | -5.4% | -0.8% | -1.2% | -0.9% | -0.4% | -0.2% | -2.3% | 4.7% |
| Earnings Growth (12 month forward) | -2.0% | | 0.6% | 0.8% | 0.0% | -1.7% | 0.6% | -10.9% | -0.1% | 2.5% | -0.6% | 2.8% |
| SB Growth-Value Score | -0.3% | | -5.9% | 4.1% | -5.0% | 1.7% | -1.9% | 0.7% | -0.4% | -1.1% | -5.9% | 4.4% |
| One Year Sales Growth | -2.6% | | -2.9% | -1.8% | -1.7% | | -1.2% | -7.0% | 0.5% | 1.8% | -6.1% | 3.9% |
| Long Term Earnings Growth | -1.4% | | 1.6% | 2.2% | -2.5% | -0.2% | -0.1% | -8.1% | -0.9% | 1.9% | 2.4% | -0.0% |
| One Year EPS Growth | -2.7% | | -7.0% | -3.0% | -1.5% | 0.3% | -2.2% | -1.8% | 2.7% | 3.8% | -0.8% | -1.6% |
| Low Risk | 0.3% | 0.0% | -7.8% | 2.6% | -7.5% | 3.7% | -2.5% | -2.4% | 0.3% | 0.8% | -0.6% | 4.1% |
| Debt to Equity (Inverted) | -0.1% | | 0.9% | 2.3% | 4.1% | | 0.3% | -1.6% | -1.5% | -1.2% | -1.8% | -2.2% |
| Earnings Stability | -0.9% | | -9.9% | 5.8% | -0.2% | -1.2% | -2.5% | -0.8% | -0.9% | -0.1% | 2.5% | -0.4% |
| Beta against MSCI AC World | -0.4% | | -3.2% | -2.4% | -5.3% | 4.4% | -2.0% | -7.9% | 0.8% | 2.6% | -2.7% | 4.8% |
| Beta against MSCI Country Index | 0.6% | | -3.1% | -2.2% | -5.7% | 4.0% | -0.7% | -5.7% | -1.5% | 1.3% | 1.0% | 3.2% |
| Size (Market Cap) | -1.2% | -3.5% | -4.4% | 7.1% | -0.6% | -0.1% | -2.3% | -2.8% | 0.1% | 4.8% | 1.1% | -1.0% |
| Quality | 1.9% | 0.1% | 3.2% | 4.9% | 4.5% | 4.4% | -1.6% | 2.2% | 2.5% | -2.3% | -4.8% | -6.9% |
| Earnings Certainty | 1.0% | | -3.5% | 7.3% | 0.4% | 4.3% | -1.0% | -1.5% | 2.3% | -0.8% | 3.0% | 1.2% |
| Return on Equity | 0.6% | | -5.8% | -4.4% | -5.1% | 2.6% | -3.0% | 1.9% | -2.9% | 0.5% | -0.7% | 4.3% |
| Net Profit Margin on Sales | -0.6% | | -1.3% | 3.2% | -6.0% | | -1.0% | 1.9% | -2.7% | 1.0% | -2.7% | 3.8% |
| Margin Growth | -2.0% | | -2.4% | -1.5% | -5.7% | -2.1% | -0.1% | 0.1% | 4.8% | 1.5% | 0.1% | 2.3% |
| Earnings Quality (Accruals) (Inverted) | 2.1% | | 4.7% | 3.9% | 3.1% | | 0.6% | 1.8% | 4.5% | -1.7% | -1.2% | -3.2% |
| Balance Sheet Quality (NOA) (Inverted) | -0.5% | | -1.1% | -2.9% | 4.3% | | 0.9% | 0.3% | 3.8% | -4.6% | -4.2% | -5.4% |
| Price Momentum | -5.5% | 0.3% | -6.9% | 1.2% | 2.4% | -2.6% | -1.1% | -9.8% | -4.7% | -1.7% | -0.2% | -1.1% |
| 3 months | -2.1% | | -2.2% | -1.6% | 3.2% | -0.1% | -4.1% | -2.7% | -7.1% | -2.8% | -2.8% | -0.6% |
| 12 months | -4.9% | | -7.1% | 2.4% | 3.6% | -3.6% | -0.6% | -10.6% | -4.5% | -1.6% | 4.9% | -0.2% |
| First 11 months | -4.9% | | -9.2% | 1.8% | 3.6% | -4.2% | -0.6% | -8.1% | -4.5% | -2.1% | 3.5% | -0.2% |
| Estimates Momentum | -2.0% | 2.5% | -3.2% | 0.0% | 3.6% | 0.8% | -3.3% | -1.2% | 1.7% | -1.7% | -1.4% | -1.7% |
| 1 Month Change in Earnings Forecast | -3.4% | | -4.9% | -0.4% | 5.1% | -2.4% | -1.8% | -7.7% | -3.6% | -0.8% | 3.6% | 0.7% |
| Earnings Revision | -1.8% | | -4.4% | 0.4% | 2.1% | 0.9% | -2.8% | -1.4% | -3.7% | 0.2% | 3.0% | -0.7% |
| Sales Revisions | -2.1% | | -0.9% | -0.2% | 6.7% | | -3.7% | -3.2% | 1.7% | -2.7% | -1.8% | 0.1% |
| Cash Revisions | -1.0% | | -1.8% | 1.3% | 1.3% | | -2.0% | -2.4% | 5.1% | -2.9% | -0.8% | 1.6% |

Source: Citi Research, IBES, Worldscope and MSCI

Note: That Quantile performance refers to the spread of returns between the top and bottom quintile of styles, while the Pure performance refers to style performance where others sources of risk exposure such as Country, Sector and other style exposure have been removed. Baskets with less than 5 stocks have been removed. See appendix for more information.

Europe ex UK: YTD Leaders and Laggards

Figure 66. Performance Spread Between High (Top 20%) and Low (Bottom 20%), and Pure Factor Portfolios, YTD

| | Quantile Perf. | Pure Perf. | Cons Disc | Cons Staples | Energy | Financials | Health Care | Industrials | Info Tech | Materials | Telcos | Utils |
|--|----------------|--------------|---------------|--------------|--------------|---------------|--------------|---------------|--------------|--------------|---------------|--------------|
| Valuation | 9.3% | 3.9% | 21.8% | -3.6% | 7.7% | 7.9% | 1.3% | 9.6% | 10.2% | -1.3% | 5.6% | -1.1% |
| Earnings Yield - 12 month forward | 3.8% | | 12.5% | -0.1% | -2.0% | -8.5% | -2.6% | 9.0% | 11.8% | -6.1% | 15.9% | 8.4% |
| Earnings Yield- 12 month historical | -0.4% | | 7.3% | 6.8% | 3.5% | -15.1% | -3.1% | 6.5% | 11.1% | -4.7% | 10.2% | 0.9% |
| Cash Flow To Price | 9.6% | | 18.1% | 1.7% | 1.7% | | -1.4% | 11.7% | 7.2% | -2.2% | 16.8% | 11.5% |
| Dividend Yield | 2.2% | | 3.1% | -6.5% | 2.6% | -7.7% | 13.8% | 7.1% | 2.9% | 6.9% | -13.2% | -2.8% |
| Book to Price Ratio | 9.4% | | 20.2% | -0.2% | 14.0% | 15.2% | -5.3% | 7.3% | 9.8% | 0.1% | 4.1% | -0.1% |
| Sales to Price Ratio | 5.5% | | 16.6% | 0.6% | 8.0% | | -11.2% | 5.2% | -5.1% | -0.8% | 13.2% | -1.3% |
| EBITDA / EV | 5.6% | | 20.3% | -2.1% | 22.1% | | -7.2% | 3.5% | 8.4% | -0.7% | 8.3% | -2.9% |
| Sales / EV | 4.1% | | 19.2% | -0.5% | 12.1% | | -9.4% | 4.6% | -2.9% | -1.0% | 9.3% | -2.2% |
| Growth | -7.1% | -1.7% | -10.2% | -5.8% | -6.1% | -4.7% | 3.6% | -6.6% | -2.2% | 1.4% | -13.4% | -0.8% |
| Earnings Growth (12 month forward) | 1.3% | | 0.9% | -7.1% | -6.7% | 12.6% | 3.6% | -8.2% | -2.1% | 1.6% | 10.8% | 7.9% |
| SB Growth-Value Score | -8.0% | | -16.7% | 6.3% | -6.9% | -8.7% | -15.5% | -2.8% | -0.1% | -5.5% | -8.1% | -1.9% |
| One Year Sales Growth | -6.2% | | -13.0% | -4.4% | -9.3% | | -3.4% | -9.2% | 8.5% | 0.2% | -16.0% | 0.8% |
| Long Term Earnings Growth | -6.2% | | -6.6% | 4.4% | -10.3% | -2.6% | 1.2% | -12.7% | -1.4% | -1.2% | 3.8% | 0.3% |
| One Year EPS Growth | -10.0% | | -17.9% | -2.0% | -2.5% | -9.5% | 10.8% | -9.3% | 0.5% | 3.8% | -16.0% | -5.4% |
| Low Risk | -3.7% | -2.8% | -16.6% | 9.0% | -4.7% | 0.5% | -8.0% | -1.9% | -0.7% | 1.8% | 18.9% | 1.9% |
| Debt to Equity (Inverted) | -5.2% | | -8.0% | 0.7% | 9.0% | | 11.8% | -7.9% | 3.4% | -2.9% | -5.2% | -8.5% |
| Earnings Stability | -2.8% | | -16.6% | 10.1% | -3.7% | -1.5% | -4.1% | -4.2% | -0.3% | -5.2% | 13.7% | 2.3% |
| Beta against MSCI AC World | -1.2% | | -7.5% | 3.3% | 4.2% | -0.3% | -0.0% | -7.1% | -0.0% | 2.9% | 5.9% | -7.0% |
| Beta against MSCI Country Index | -2.0% | | -2.6% | 2.0% | -0.5% | -2.0% | -3.2% | -6.4% | 1.8% | 1.1% | 13.7% | -12.3% |
| Size (Market Cap) | -5.8% | -5.8% | -9.1% | -1.6% | 9.4% | -6.5% | 6.7% | -5.9% | -4.5% | -3.2% | -20.2% | -2.5% |
| Quality | 1.5% | -1.8% | 4.6% | 1.4% | 5.1% | -11.0% | 10.1% | -4.6% | -0.9% | 3.1% | -10.8% | -5.5% |
| Earnings Certainty | -7.1% | | -11.8% | 7.5% | -7.2% | -10.6% | 7.5% | -10.6% | 11.4% | -4.6% | -1.2% | 1.0% |
| Return on Equity | -7.4% | | -11.3% | -12.3% | -10.3% | -12.5% | 6.7% | -0.3% | 4.3% | -1.9% | -6.6% | -3.4% |
| Net Profit Margin on Sales | -6.3% | | -9.0% | -8.2% | -19.9% | | 11.4% | 0.0% | 5.2% | -6.2% | -17.0% | -3.9% |
| Margin Growth | -3.0% | | -2.2% | -10.6% | -12.6% | -6.5% | 3.2% | -7.6% | 11.9% | -2.0% | -3.8% | 3.9% |
| Earnings Quality (Accruals) (Inverted) | 4.3% | | 12.0% | 1.4% | -1.4% | | 1.6% | -0.5% | 5.3% | 6.0% | -7.0% | 1.7% |
| Balance Sheet Quality (NOA) (Inverted) | 1.7% | | -1.7% | -7.9% | 9.9% | | 17.6% | -0.6% | -5.8% | -2.9% | -0.8% | 1.6% |
| Price Momentum | -6.9% | -0.4% | -1.4% | 2.3% | 8.0% | -9.7% | 2.1% | -13.0% | -3.2% | -7.6% | -13.8% | 2.6% |
| 3 months | -2.3% | | -2.5% | 2.3% | 2.5% | -0.1% | -5.0% | -9.1% | -13.6% | -6.7% | -8.9% | 4.0% |
| 12 months | -6.7% | | -4.6% | 4.7% | 4.2% | -8.3% | 5.8% | -13.5% | -1.7% | -9.5% | -7.0% | 1.4% |
| First 11 months | -7.5% | | -7.7% | 1.7% | 4.9% | -9.4% | -2.3% | -11.4% | -1.7% | -6.3% | -8.0% | 1.4% |
| Estimates Momentum | 2.1% | 6.1% | 8.0% | 0.7% | 0.5% | 7.6% | -1.1% | 2.2% | 7.5% | -6.1% | -3.2% | 9.0% |
| 1 Month Change in Earnings Forecast | 0.4% | | 0.5% | 2.4% | -3.5% | 9.9% | 0.2% | -2.9% | -5.1% | -12.5% | 6.6% | 8.3% |
| Earnings Revision | 0.2% | | 4.5% | -0.6% | 0.1% | 5.3% | 3.3% | -1.4% | 1.8% | -9.6% | -5.0% | 18.2% |
| Sales Revisions | -0.3% | | 6.2% | -0.3% | 5.5% | | -3.6% | -6.7% | 10.7% | -2.0% | 1.0% | 3.3% |
| Cash Revisions | 1.5% | | 11.6% | 5.5% | 3.5% | | -9.6% | -0.4% | 16.3% | -0.5% | 5.6% | 10.0% |

Source: Citi Research, IBES, Worldscope and MSCI

Note: That Quantile performance refers to the spread of returns between the top and bottom quintile of styles, while the Pure performance refers to style performance where others sources of risk exposure such as Country, Sector and other style exposure have been removed. Baskets with less than 5 stocks have been removed. See appendix for more information.

Europe ex UK: Macro Factor Sensitivities⁴

Figure 67. GDP Weighted European Bond Yield

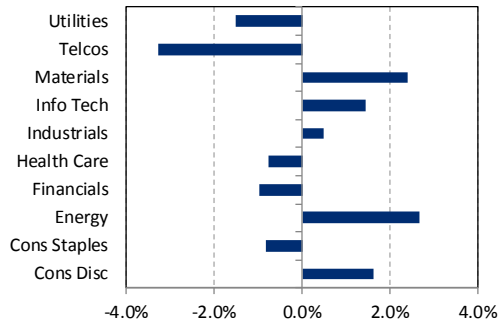


Figure 68. Commodities (GSCI)

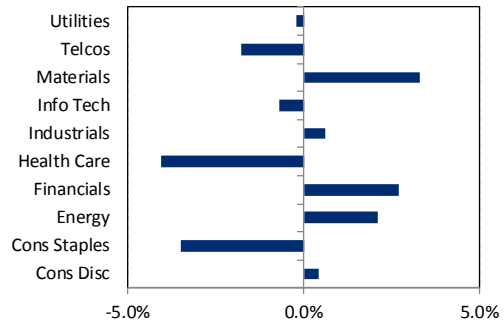


Figure 69. European GDP Growth

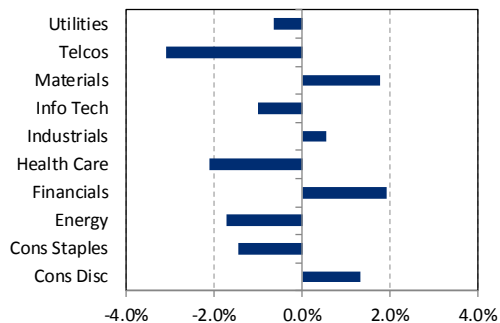


Figure 70. Oil

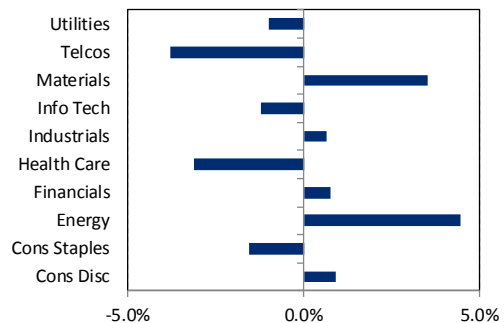


Figure 71. USD per EUR

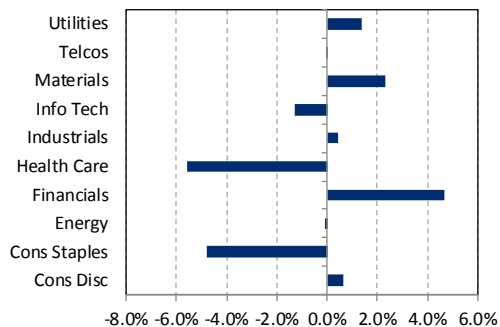


Figure 72. Credit Spreads

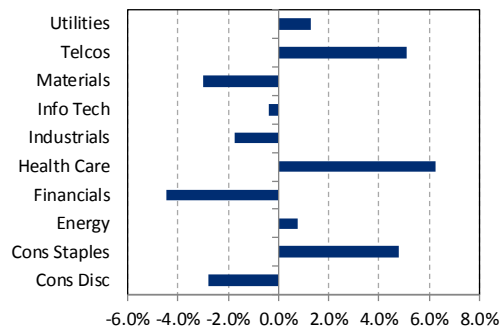
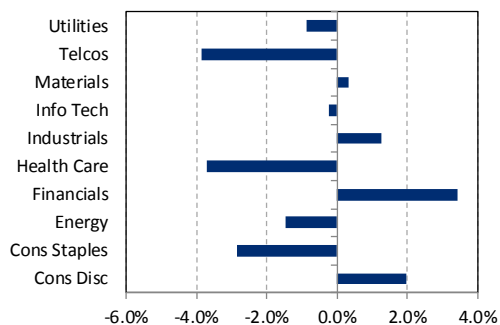


Figure 73. Market (S&P BMI Europe)



Source: Citi Research, MSCI

⁴ The above charts illustrate predicted *relative returns* from our proprietary risk model (European RAM) for a one standard deviation change in the underlying macroeconomic factor.

Europe ex UK: Style Sector Composition

Figure 74. Estimates Momentum

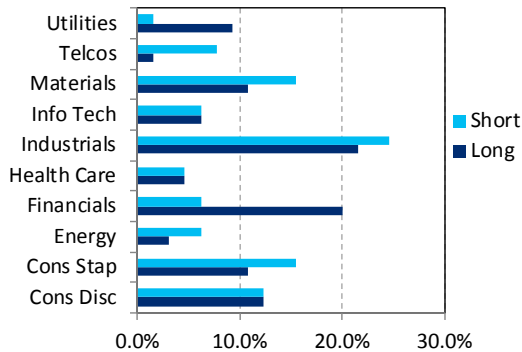


Figure 75. Growth

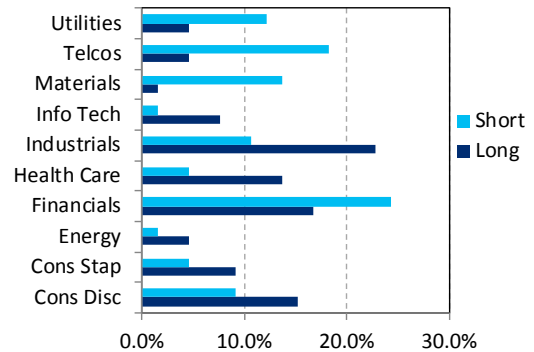


Figure 76. Value

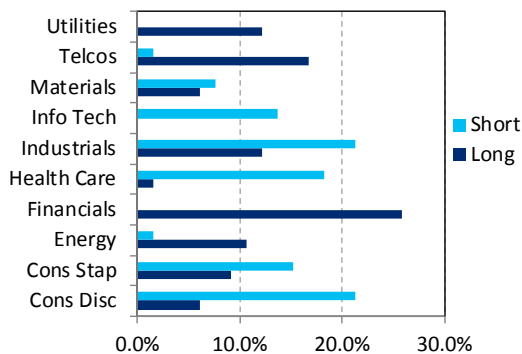


Figure 77. Low Risk

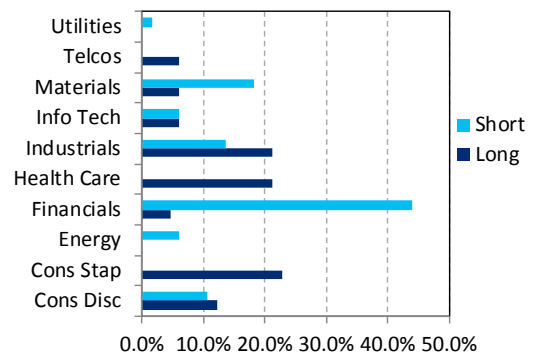


Figure 78. Size

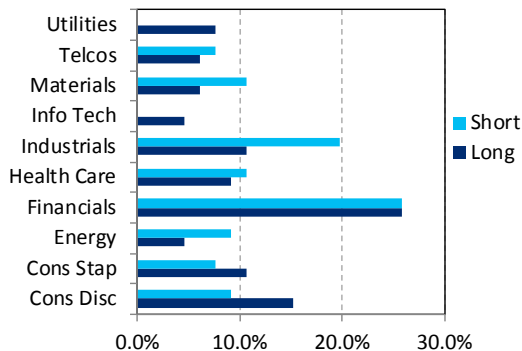


Figure 79. Price Momentum

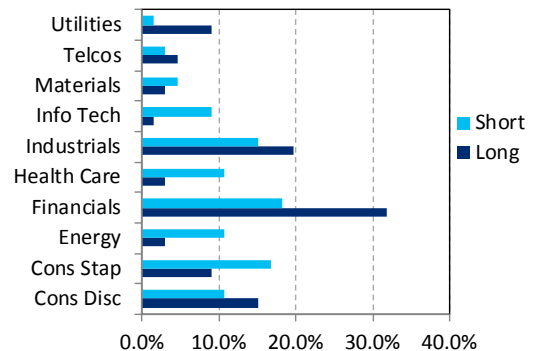
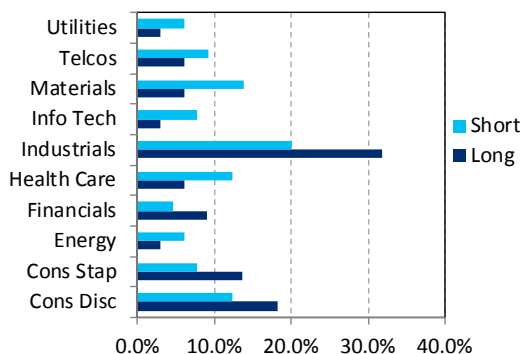


Figure 80. Quality



Style composition is defined as the proportion of each of the long and short style portfolios coming from the relevant regions, country or sector.

Source: Citi Research, MSCI, IBES, Worldscope, DataStream

Europe ex UK: Relative Style Valuations

Figure 81. Estimates Momentum

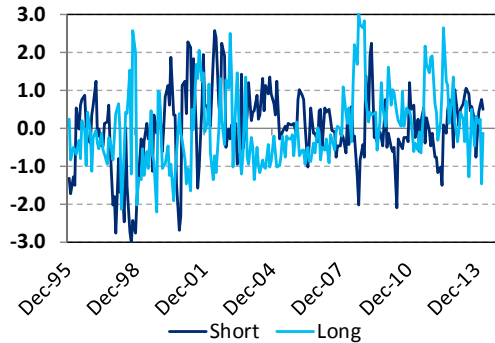


Figure 82. Growth

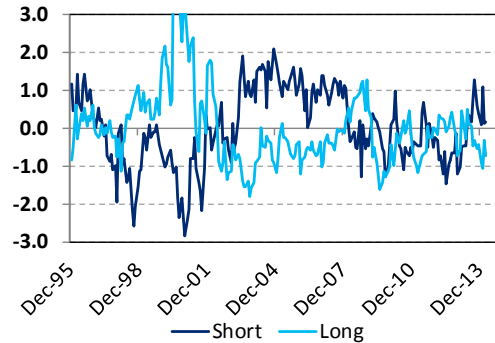


Figure 83. Value

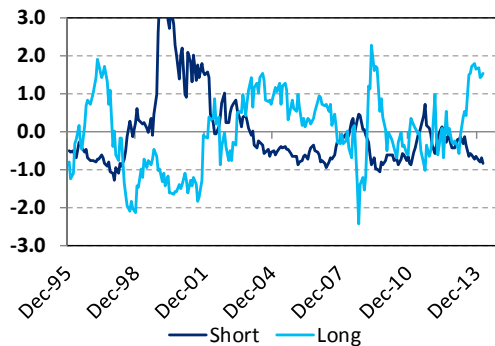


Figure 84. Low Risk

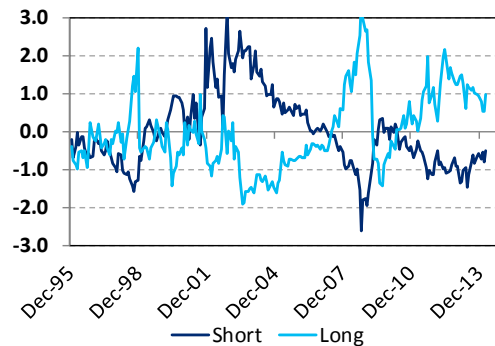


Figure 85. Size



Figure 86. Price Momentum

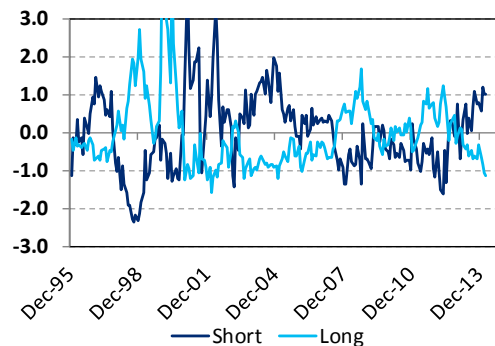
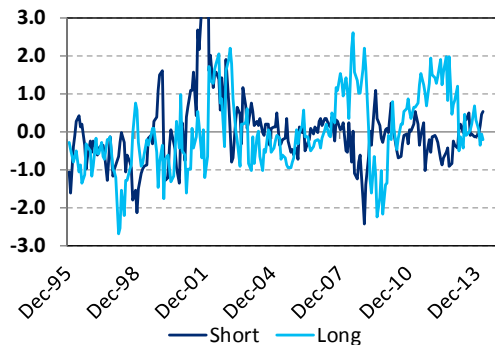


Figure 87. Quality



Relative style valuations calculated using median 12 month forward P/E of the respective long and short style quintiles relative to the benchmark median.

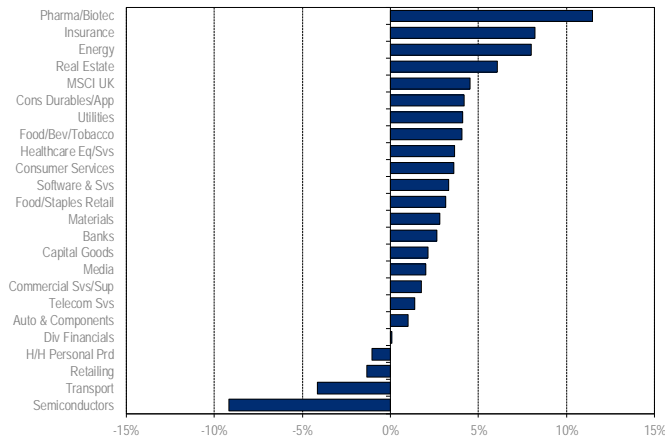
The charts show Z-scored time series for both the long and short relevant valuations. Axes are intentionally capped at ± 3 s.

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United Kingdom

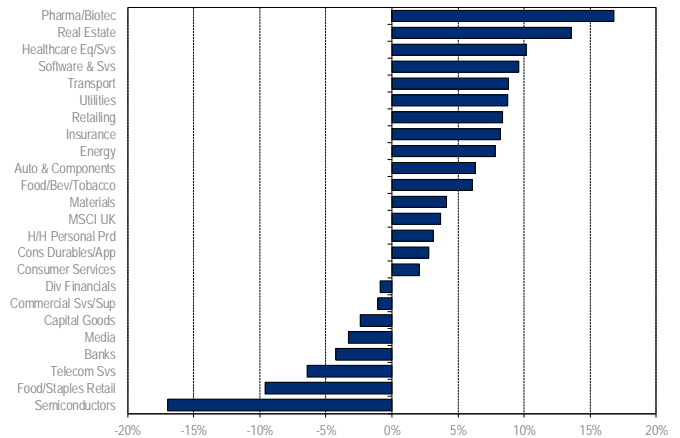
UK: What Has the Market Done?

Figure 88. One-Month Total USD Returns (Percentage)



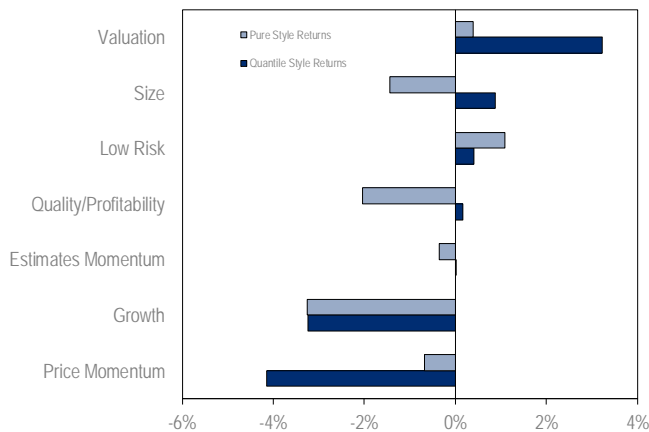
Source: Citi Research, IBES, Worldscope and MSCI

Figure 89. YTD Total USD Returns (Percentage)



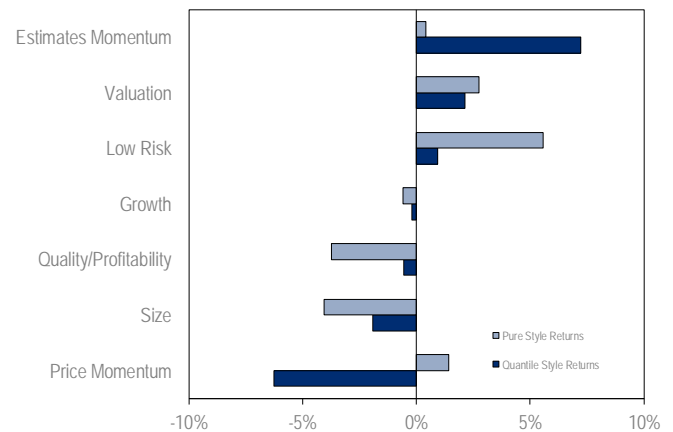
Source: Citi Research, IBES, Worldscope and MSCI

Figure 90. Style Performance Across Market, April 2014



Source: Citi Research, IBES, Worldscope and MSCI

Figure 91. Style Performance Across Market, YTD



Source: Citi Research, IBES, Worldscope and MSCI

UK: Last Month's Style Leaders and Laggards

Figure 92. Performance Spread Between High (Top 20%) and Low (Bottom 20%), and Pure Factor Portfolios in April 2014

| | Quantile Perf. | Pure Perf. | Cons Disc | Cons Staples | Energy | Financials | Health Care | Industrials | Info Tech | Materials | Telcos | Utils |
|--|----------------|------------|-----------|--------------|--------|------------|-------------|-------------|-----------|-----------|--------|-------|
| Valuation | 3.2% | 0.4% | -0.3% | -3.0% | -8.0% | 8.0% | | -5.1% | | -2.1% | | 2.8% |
| Earnings Yield - 12 month forward | 3.2% | | -2.6% | -0.1% | -8.0% | 5.1% | | -3.4% | | -3.5% | | 2.6% |
| Earnings Yield- 12 month historical | 2.2% | | -2.0% | -3.9% | -8.0% | 5.3% | | -5.3% | | -3.5% | | 2.6% |
| Cash Flow To Price | 2.7% | | -1.8% | 0.3% | -1.0% | | | -1.3% | | -1.2% | | 1.5% |
| Dividend Yield | 5.6% | | 3.7% | -1.2% | -8.0% | 11.9% | | 3.8% | | -5.4% | | 2.6% |
| Book to Price Ratio | 4.4% | | 1.8% | 0.6% | 2.7% | 5.3% | | -8.9% | | 0.9% | | -2.8% |
| Sales to Price Ratio | -1.9% | | -0.1% | -1.5% | -13.4% | | | -9.9% | | -2.2% | | 2.8% |
| EBITDA / EV | 2.2% | | -1.6% | -2.2% | -13.4% | | | -1.7% | | -0.1% | | -0.1% |
| Sales / EV | -1.3% | | -1.0% | -1.5% | -13.4% | | | -7.4% | | -2.2% | | 2.8% |
| Growth | -3.2% | -3.2% | 0.9% | -2.5% | 8.7% | -7.9% | | 1.6% | | -0.2% | | -2.6% |
| Earnings Growth (12 month forward) | -4.3% | | -6.4% | 1.2% | -8.0% | -0.1% | | 0.7% | | 0.3% | | -1.5% |
| SB Growth-Value Score | -2.6% | | -0.3% | -1.8% | 5.1% | -4.6% | | 2.7% | | 2.8% | | -1.1% |
| One Year Sales Growth | -2.7% | | 1.0% | 0.5% | 3.8% | | | -0.9% | | -0.4% | | -0.1% |
| Long Term Earnings Growth | -2.9% | | -2.1% | 7.2% | -0.9% | -6.5% | | -1.0% | | -1.4% | | -0.2% |
| One Year EPS Growth | -4.7% | | -3.8% | 5.6% | 8.7% | -5.3% | | -4.3% | | -1.3% | | -2.8% |
| Low Risk | 0.4% | 1.1% | -0.9% | -2.1% | 0.5% | -4.0% | | -0.2% | | 6.0% | | -2.8% |
| Debt to Equity (Inverted) | 0.5% | | 1.0% | 0.6% | 5.7% | | | -2.7% | | 0.7% | | 2.6% |
| Earnings Stability | -3.6% | | -4.2% | 7.3% | -7.0% | -2.7% | | -2.2% | | 2.1% | | -2.8% |
| Beta against MSCI AC World | 1.5% | | 1.1% | -4.7% | 6.0% | -3.6% | | -3.7% | | 6.0% | | -2.6% |
| Beta against MSCI Country Index | 1.1% | | 1.1% | -7.3% | 0.6% | -3.3% | | -3.7% | | 6.0% | | -2.6% |
| Size (Market Cap) | 0.9% | -1.4% | -0.1% | 4.6% | -1.0% | -5.2% | | 5.2% | | -1.9% | | 1.1% |
| Quality | 0.2% | -2.0% | -1.1% | 6.0% | -3.9% | -4.8% | | -1.9% | | -2.5% | | 1.5% |
| Earnings Certainty | -1.1% | | 0.3% | 3.9% | -7.0% | -2.0% | | 3.9% | | -2.5% | | -2.8% |
| Return on Equity | -4.1% | | -4.1% | -1.0% | -15.5% | -1.3% | | 3.6% | | -0.9% | | 1.3% |
| Net Profit Margin on Sales | 1.7% | | 2.8% | -5.2% | -1.6% | | | 6.6% | | 2.2% | | -2.8% |
| Margin Growth | 2.8% | | 0.2% | 0.8% | -1.6% | 3.6% | | 3.1% | | -2.7% | | -1.5% |
| Earnings Quality (Accruals) (Inverted) | 0.0% | | -1.7% | 6.1% | 4.7% | | | -1.1% | | -5.8% | | 1.5% |
| Balance Sheet Quality (NOA) (Inverted) | -1.0% | | -0.3% | 3.8% | -12.5% | | | -2.8% | | -3.6% | | 2.8% |
| Price Momentum | -4.1% | -0.7% | -7.4% | 3.5% | -7.0% | -6.1% | | 0.4% | | -2.8% | | -2.8% |
| 3 months | -1.3% | | -6.9% | 3.1% | -7.0% | -0.5% | | 2.4% | | 2.9% | | -2.8% |
| 12 months | -3.7% | | -7.4% | -1.1% | -3.9% | -4.7% | | 1.6% | | -2.5% | | -1.5% |
| First 11 months | -3.5% | | -6.7% | -1.1% | -3.9% | -5.0% | | 1.9% | | -5.5% | | -1.6% |
| Estimates Momentum | 0.0% | -0.4% | -3.6% | -2.5% | -7.5% | 1.1% | | -0.9% | | 2.5% | | -2.8% |
| 1 Month Change in Earnings Forecast | -3.1% | | -5.0% | 0.6% | -8.5% | -5.2% | | -6.5% | | 3.0% | | -2.8% |
| Earnings Revision | 1.7% | | -2.2% | 0.1% | -0.0% | 0.3% | | 0.8% | | 2.5% | | -2.8% |
| Sales Revisions | 1.0% | | -2.5% | -0.6% | -1.1% | | | 0.5% | | 1.6% | | -1.5% |
| Cash Revisions | 1.6% | | -5.6% | 1.5% | -3.3% | | | -2.4% | | 2.8% | | 0.1% |

Source: Citi Research, IBES, Worldscope and MSCI

Note: That Quantile performance refers to the spread of returns between the top and bottom quintile of styles, while the Pure performance refers to style performance where others sources of risk exposure such as Country, Sector and other style exposure have been removed. Baskets with less than 5 stocks have been removed. See appendix for more information.

UK: YTD Leaders and Laggards

Figure 93. Performance Spread Between High (Top 20%) and Low (Bottom 20%), and Pure Factor Portfolios, YTD

| | Quantile Perf. | Pure Perf. | Cons Disc | Cons Staples | Energy | Financials | Health Care | Industrials | Info Tech | Materials | Telcos | Utils |
|--|----------------|------------|-----------|--------------|--------|------------|-------------|-------------|-----------|-----------|--------|--------|
| Valuation | 2.1% | 2.8% | 8.5% | -14.4% | 4.1% | 6.3% | | -7.4% | | -3.5% | | -18.4% |
| Earnings Yield - 12 month forward | 4.7% | | 8.4% | -8.4% | 6.4% | 1.4% | | -2.4% | | -9.4% | | 4.8% |
| Earnings Yield- 12 month historical | 3.0% | | 7.2% | -14.7% | 12.5% | 3.6% | | -8.6% | | -12.9% | | 3.4% |
| Cash Flow To Price | 4.1% | | 7.5% | -17.9% | -8.6% | | | -12.6% | | -2.5% | | 9.5% |
| Dividend Yield | 7.1% | | -1.1% | -7.3% | 12.7% | 10.4% | | 8.2% | | -3.6% | | 4.8% |
| Book to Price Ratio | 2.4% | | -6.1% | -16.3% | -7.9% | 6.7% | | -13.5% | | 11.9% | | 3.9% |
| Sales to Price Ratio | -4.8% | | 5.8% | -16.1% | -4.6% | | | -13.0% | | -21.6% | | -4.8% |
| EBITDA / EV | 1.1% | | 7.6% | -9.4% | -13.1% | | | -14.8% | | 4.6% | | -13.5% |
| Sales / EV | -4.1% | | 1.3% | -16.1% | -4.6% | | | -8.1% | | -21.6% | | -4.8% |
| Growth | -0.2% | -0.6% | -2.5% | 7.5% | 18.4% | -11.6% | | 9.7% | | 6.9% | | -0.1% |
| Earnings Growth (12 month forward) | -4.3% | | -6.4% | -4.8% | -9.5% | 2.7% | | 13.0% | | 3.2% | | 3.2% |
| SB Growth-Value Score | 2.0% | | 2.9% | 15.5% | 5.7% | -2.9% | | 5.6% | | 10.0% | | 1.5% |
| One Year Sales Growth | -0.9% | | 2.0% | 2.8% | 9.4% | | | -4.5% | | 10.5% | | -5.1% |
| Long Term Earnings Growth | 2.6% | | 11.3% | 25.2% | 14.7% | -2.0% | | 13.7% | | 2.6% | | 3.5% |
| One Year EPS Growth | -3.7% | | 4.8% | 24.0% | 17.2% | -6.1% | | -5.3% | | 4.2% | | 1.9% |
| Low Risk | 0.9% | 5.6% | 4.1% | 14.4% | -0.4% | 1.4% | | 5.0% | | 9.5% | | -0.0% |
| Debt to Equity (Inverted) | -1.8% | | -3.5% | -9.5% | 23.3% | | | -4.0% | | 14.7% | | -9.6% |
| Earnings Stability | 1.1% | | -0.9% | 5.7% | 2.9% | -1.3% | | 2.1% | | -2.2% | | 9.5% |
| Beta against MSCI AC World | 3.9% | | -5.3% | 6.0% | -9.6% | 1.1% | | -9.5% | | 9.5% | | -10.9% |
| Beta against MSCI Country Index | 2.8% | | -4.0% | 3.3% | -10.3% | 5.4% | | -10.2% | | 9.5% | | -1.8% |
| Size (Market Cap) | -1.9% | -4.0% | -4.1% | 26.1% | -11.2% | -18.4% | | 4.2% | | -13.9% | | -1.5% |
| Quality | -0.5% | -3.7% | -4.7% | 17.4% | -3.6% | -6.0% | | 1.0% | | -14.5% | | 0.6% |
| Earnings Certainty | 0.7% | | -10.3% | 15.4% | 8.3% | -5.6% | | 14.6% | | -11.0% | | 10.5% |
| Return on Equity | -1.0% | | 8.0% | 16.1% | -4.3% | -0.5% | | 2.8% | | 7.5% | | -10.6% |
| Net Profit Margin on Sales | 7.7% | | -1.4% | 8.3% | -8.9% | | | 0.4% | | 11.0% | | 3.9% |
| Margin Growth | -0.2% | | -7.1% | 4.7% | -17.9% | 1.9% | | 6.3% | | -6.9% | | 8.2% |
| Earnings Quality (Accruals) (Inverted) | -2.4% | | 3.3% | 5.2% | -15.1% | | | 5.5% | | -25.4% | | 16.3% |
| Balance Sheet Quality (NOA) (Inverted) | 1.9% | | 5.9% | 4.3% | 10.8% | | | -5.9% | | -16.1% | | -4.9% |
| Price Momentum | -6.3% | 1.4% | -0.4% | -0.4% | -15.8% | -14.6% | | 4.6% | | -20.9% | | -14.8% |
| 3 months | -6.0% | | -5.0% | 12.2% | -7.9% | -11.9% | | 1.6% | | -22.1% | | 1.0% |
| 12 months | -5.4% | | -1.7% | -5.2% | -14.7% | -10.5% | | 12.7% | | -14.6% | | -16.3% |
| First 11 months | -4.8% | | -1.5% | -8.2% | -11.8% | -5.8% | | 13.4% | | -16.2% | | -15.3% |
| Estimates Momentum | 7.2% | 0.4% | 4.3% | 2.7% | -16.8% | 6.5% | | 8.9% | | -7.4% | | 13.7% |
| 1 Month Change in Earnings Forecast | -1.2% | | 2.3% | 4.0% | -0.5% | -7.5% | | -0.5% | | -16.6% | | 6.8% |
| Earnings Revision | 5.7% | | 5.7% | 6.7% | 5.0% | 4.7% | | 2.9% | | -10.6% | | 17.2% |
| Sales Revisions | 5.6% | | 13.4% | -2.6% | -19.2% | | | 3.3% | | -2.8% | | -7.1% |
| Cash Revisions | 7.6% | | 6.4% | -2.1% | -13.5% | | | 14.3% | | -12.8% | | 15.2% |

Source: Citi Research, IBES, Worldscope and MSCI

Note: That Quantile performance refers to the spread of returns between the top and bottom quintile of styles, while the Pure performance refers to style performance where others sources of risk exposure such as Country, Sector and other style exposure have been removed. Baskets with less than 5 stocks have been removed. See appendix for more information.

UK: Macro Factor Sensitivities⁵

Figure 94. GDP Weighted European Bond Yield

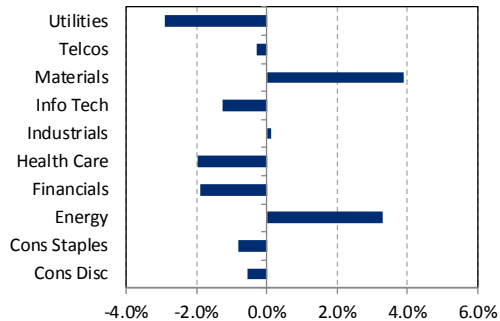


Figure 95. Commodities (GSCI)

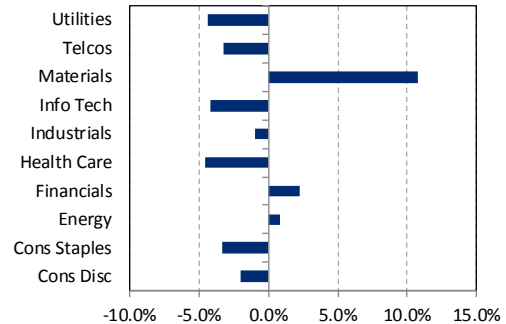


Figure 96. European GDP Growth

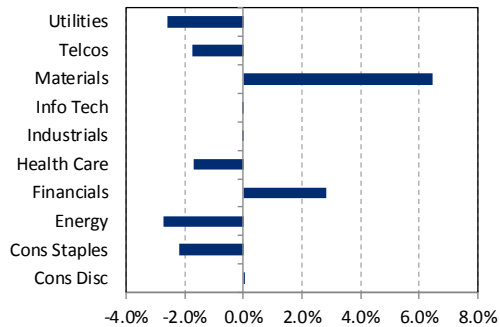


Figure 97. Oil

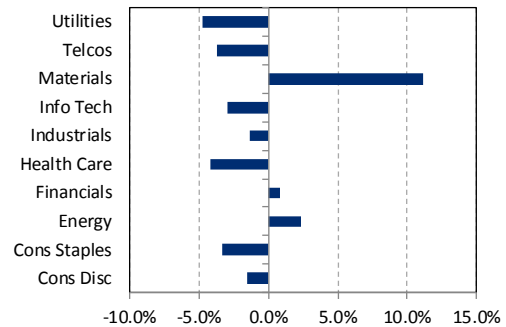


Figure 98. USD per EUR

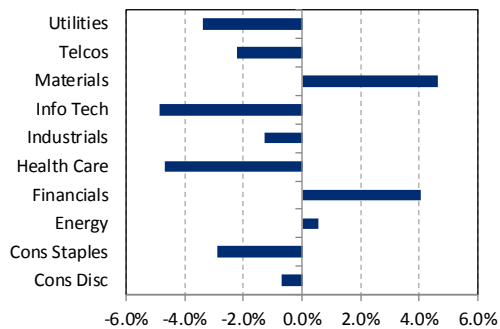


Figure 99. Credit Spreads

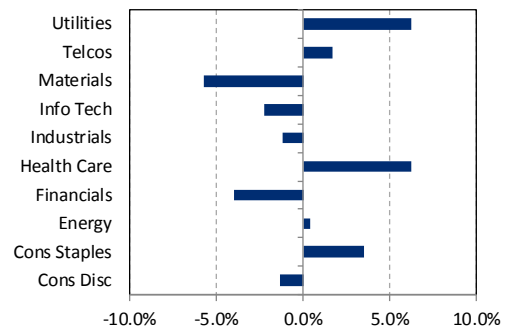
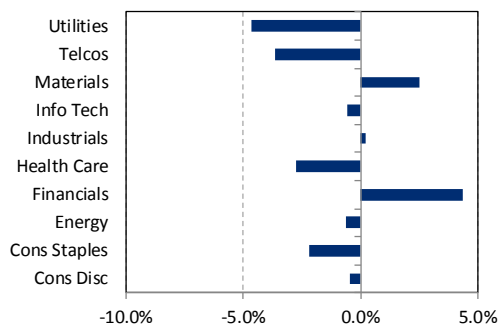


Figure 100. Market (S&P BMI Europe)



Source: Citi Research, MSCI

⁵ The above charts illustrate predicted *relative returns* from our proprietary risk model (European RAM) for a one standard deviation change in the underlying macroeconomic factor.

UK: Style Sector Composition

Figure 101. Estimates Momentum

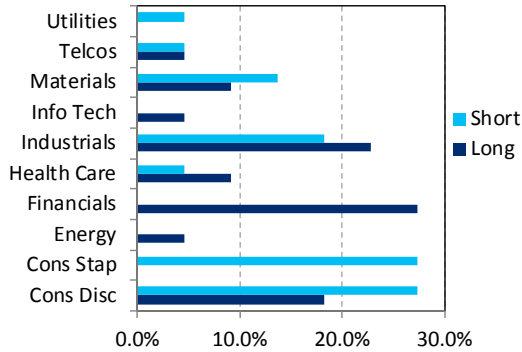


Figure 102. Growth

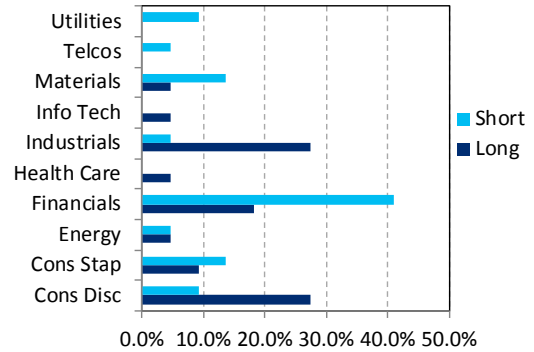


Figure 103. Value

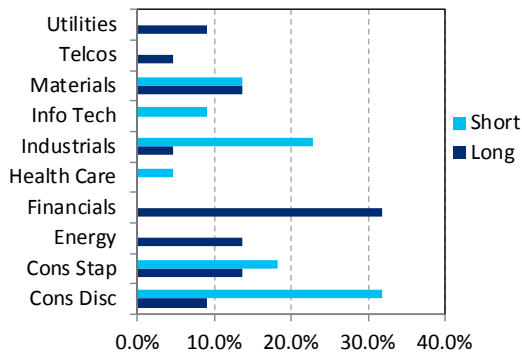


Figure 104. Low Risk

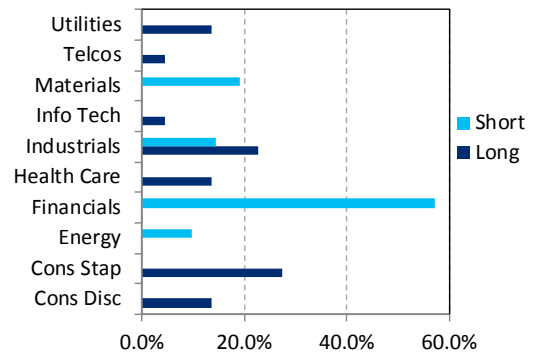


Figure 105. Size

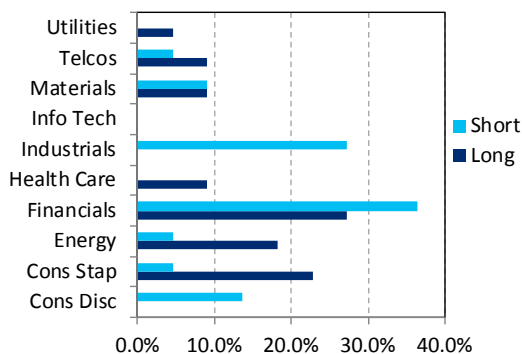


Figure 106. Price Momentum

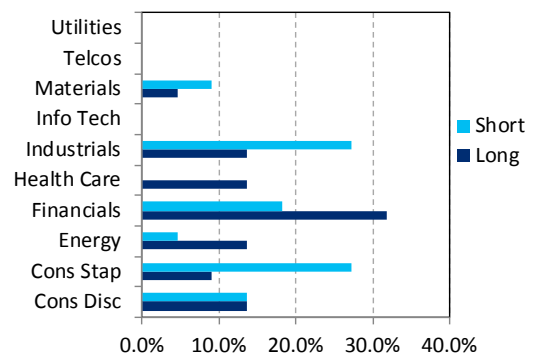
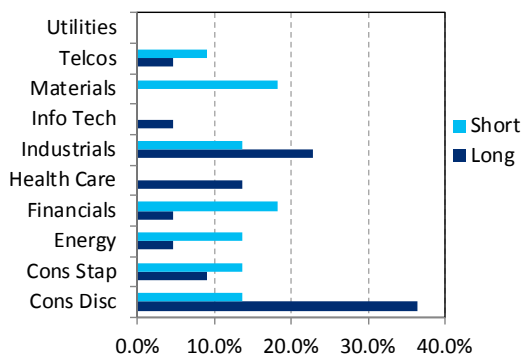


Figure 107. Quality



Style composition is defined as the proportion of each of the long and short style portfolios coming from the relevant regions, country or sector.

Source: Citi Research, MSCI, IBES, Worldscope, DataStream

UK: Relative Style Valuations

Figure 108. Estimates Momentum

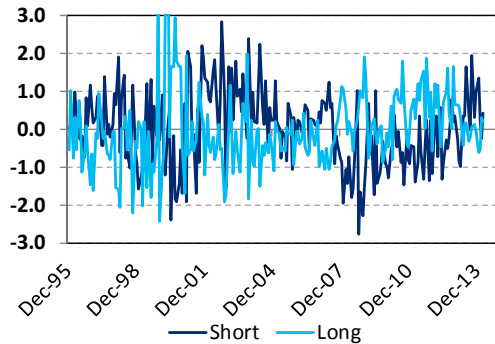


Figure 109. Growth

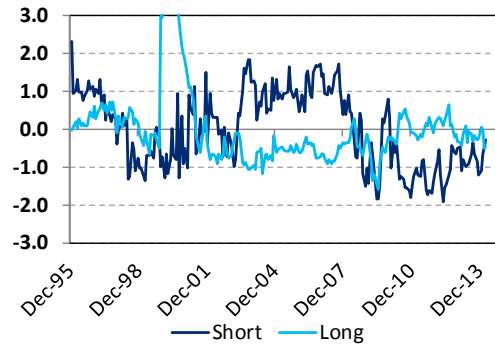


Figure 110. Value

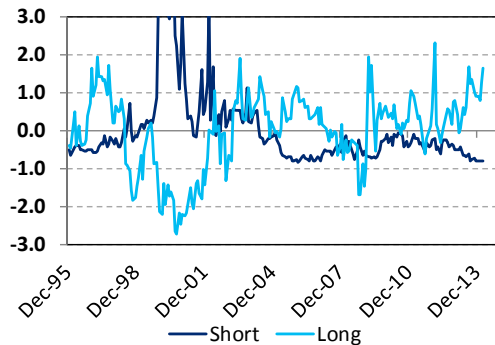


Figure 111. Low Risk

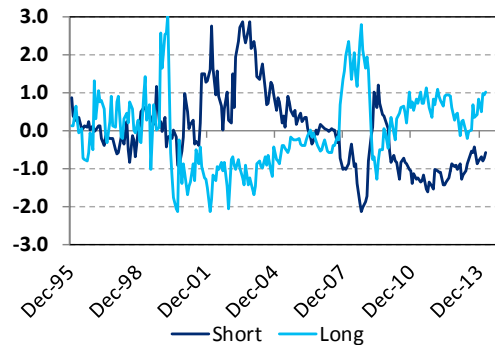


Figure 112. Size

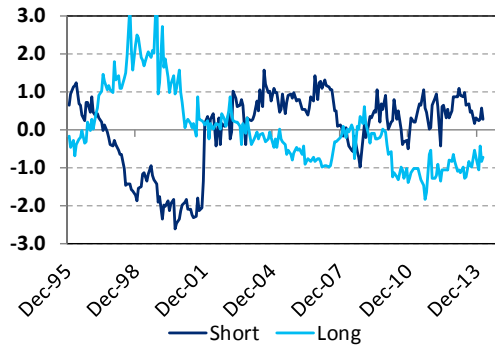


Figure 113. Price Momentum

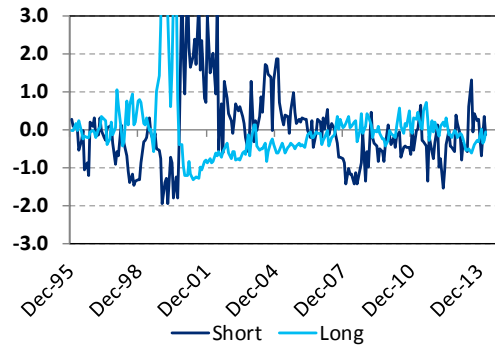
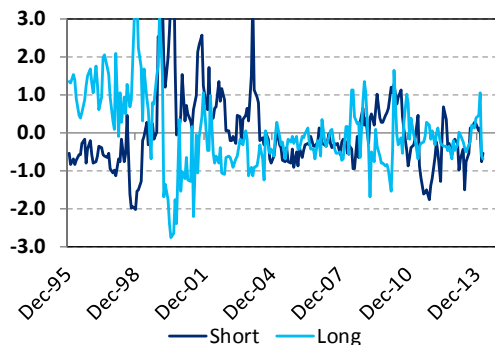


Figure 114. Quality



Relative style valuations calculated using median 12 month forward P/E of the respective long and short style quintiles relative to the benchmark median.

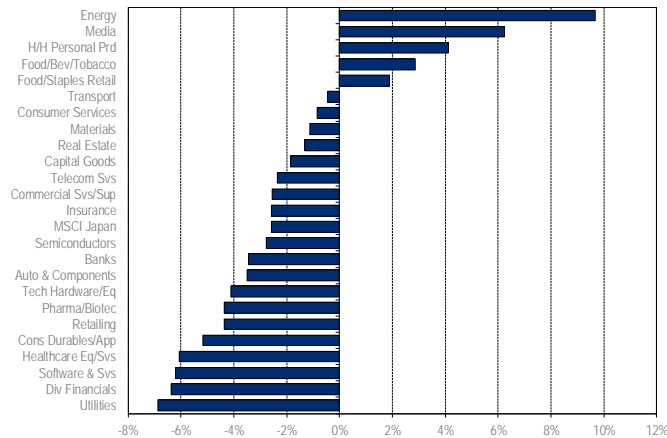
The charts show Z-scored time series for both the long and short relevant valuations. Axes are intentionally capped at $\pm 3\sigma$.

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Japan

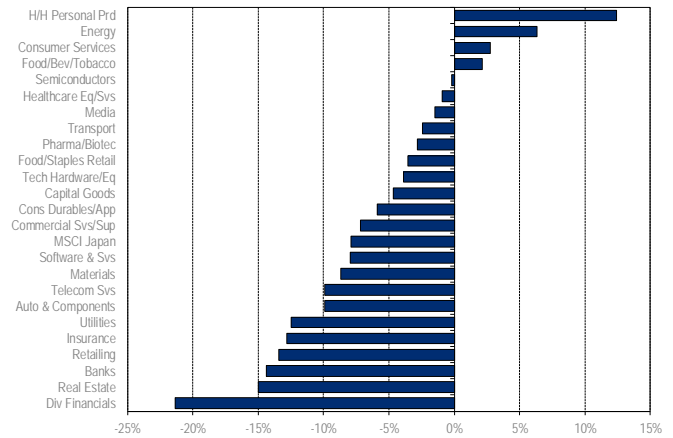
Japan: What Has the Market Done?

Figure 115. One-Month Total USD Returns (Percentage)



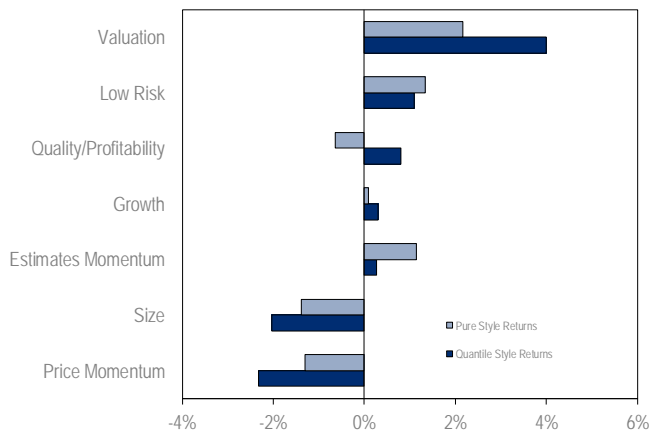
Source: Citi Research, IBES, Worldscope and MSCI

Figure 116. YTD Total USD Returns (Percentage)



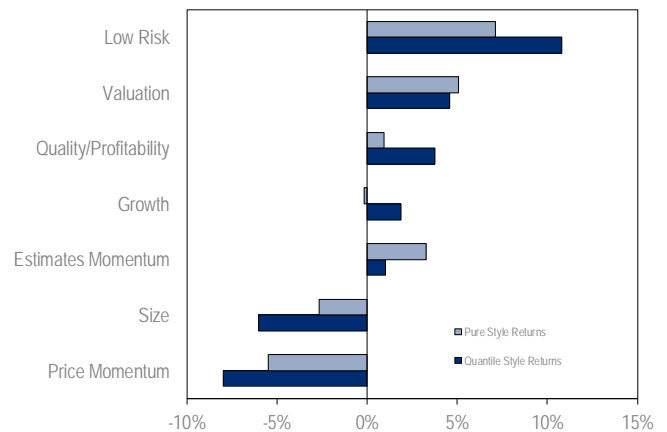
Source: Citi Research, IBES, Worldscope and MSCI

Figure 117. Style Performance Across Market, April 2014



Source: Citi Research, IBES, Worldscope and MSCI

Figure 118. Style Performance Across Market, YTD



Source: Citi Research, IBES, Worldscope and MSCI

Japan: Last Month's Style Leaders and Laggards

Figure 119. Performance Spread Between High (Top 20%) and Low (Bottom 20%), and Pure Factor Portfolios in April 2014

| | Quantile Perf. | Pure Perf. | Cons Disc | Cons Staples | Energy | Financials | Health Care | Industrials | Info Tech | Materials | Telcos | Utils |
|--|----------------|------------|-----------|--------------|--------|------------|-------------|-------------|-----------|-----------|--------|--------|
| Valuation | 4.0% | 2.2% | 3.7% | -0.7% | -1.1% | 4.8% | 1.5% | 1.8% | 3.8% | -2.9% | | 14.9% |
| Earnings Yield - 12 month forward | 1.8% | | 2.0% | -1.4% | 2.7% | 6.1% | 3.2% | -3.7% | 0.8% | 3.9% | | -3.7% |
| Earnings Yield- 12 month historical | 2.8% | | 0.3% | -0.1% | 3.5% | 3.1% | 3.0% | -2.3% | -0.5% | 6.9% | | 18.1% |
| Cash Flow To Price | 3.6% | | 3.2% | -5.4% | -4.9% | | 3.2% | 0.0% | 1.4% | -1.5% | | 14.0% |
| Dividend Yield | 5.3% | | 0.6% | -4.5% | -1.4% | 6.8% | 5.0% | 0.2% | 5.5% | 5.0% | | 16.5% |
| Book to Price Ratio | 2.1% | | 1.8% | 2.0% | -4.0% | 2.2% | 2.0% | 0.7% | 4.4% | -1.7% | | -1.2% |
| Sales to Price Ratio | 1.5% | | 2.6% | 0.6% | -5.0% | | 0.5% | 2.6% | -1.0% | 1.8% | | -9.6% |
| EBITDA / EV | 4.1% | | 4.5% | -3.9% | 1.2% | | 1.3% | 1.1% | 1.7% | 0.3% | | 14.6% |
| Sales / EV | 5.0% | | 2.8% | 0.5% | -1.9% | | 0.5% | 3.1% | 0.7% | -1.2% | | 14.5% |
| Growth | 0.3% | 0.1% | 2.7% | -0.7% | -1.9% | -5.3% | -3.9% | 1.1% | -3.1% | -4.3% | | 10.3% |
| Earnings Growth (12 month forward) | -2.1% | | 3.6% | 3.2% | 3.0% | 0.7% | -4.1% | 0.1% | 1.3% | -5.6% | | -4.7% |
| SB Growth-Value Score | -0.2% | | 6.3% | 3.3% | -4.9% | -1.5% | -2.4% | -1.6% | -2.6% | -4.6% | | -3.7% |
| One Year Sales Growth | 0.8% | | -3.9% | -4.4% | -1.4% | | 1.1% | 0.4% | -4.0% | -5.9% | | 13.0% |
| Long Term Earnings Growth | -1.9% | | -3.1% | -4.8% | 5.7% | 0.1% | -2.5% | -4.1% | -2.5% | -2.7% | | 0.5% |
| One Year EPS Growth | 0.8% | | 0.4% | -5.5% | 1.2% | 0.4% | -1.3% | 0.5% | -1.5% | -2.8% | | 10.0% |
| Low Risk | 1.1% | 1.3% | 3.8% | -0.3% | -5.0% | 6.4% | -3.5% | 2.8% | -5.1% | -3.5% | | 11.6% |
| Debt to Equity (Inverted) | 0.5% | | 2.0% | 2.8% | 4.5% | | -1.0% | -1.0% | 2.1% | -2.5% | | 11.4% |
| Earnings Stability | 1.3% | | 6.9% | 1.5% | -5.0% | 1.5% | -5.5% | -1.5% | -7.3% | -1.4% | | 9.8% |
| Beta against MSCI AC World | -0.4% | | 1.2% | -2.4% | -4.7% | 2.4% | -2.5% | 1.8% | -1.7% | -5.0% | | -4.1% |
| Beta against MSCI Country Index | 1.4% | | -5.2% | -3.2% | -4.7% | 4.7% | -2.2% | 4.3% | 1.5% | 0.9% | | 5.0% |
| Size (Market Cap) | -2.0% | -1.4% | -8.5% | -3.3% | -1.8% | -4.6% | 1.0% | -0.0% | -1.0% | 5.2% | | 9.0% |
| Quality | 0.8% | -0.6% | -0.6% | -3.7% | -1.9% | 5.0% | -2.8% | 1.6% | -2.0% | -5.2% | | 11.1% |
| Earnings Certainty | 2.9% | | 2.2% | 0.1% | 5.9% | 5.6% | 4.1% | -1.0% | -2.8% | 3.3% | | 15.6% |
| Return on Equity | 2.3% | | 1.7% | -3.8% | -1.4% | 2.2% | -2.8% | 0.5% | -1.3% | 0.5% | | 16.0% |
| Net Profit Margin on Sales | 1.7% | | -2.1% | -3.6% | 1.2% | | -0.6% | 1.0% | -0.4% | 0.2% | | 16.0% |
| Margin Growth | -1.9% | | 0.2% | -1.9% | 5.7% | -3.8% | -2.1% | -2.4% | -3.5% | -4.0% | | -3.8% |
| Earnings Quality (Accruals) (Inverted) | 0.2% | | 0.8% | 1.7% | 0.4% | | 0.1% | -0.1% | -3.3% | -1.6% | | 0.1% |
| Balance Sheet Quality (NOA) (Inverted) | -1.5% | | -1.2% | -2.7% | -1.9% | | -5.8% | 2.4% | -3.4% | -4.3% | | -9.8% |
| Price Momentum | -2.3% | -1.3% | -2.9% | -3.1% | 1.2% | 0.1% | -5.3% | 0.4% | -6.7% | -1.6% | | 3.6% |
| 3 months | -1.7% | | -3.9% | -0.4% | 2.5% | 5.6% | -2.9% | 2.6% | -0.4% | 0.3% | | 8.1% |
| 12 months | -1.0% | | -0.7% | 1.9% | 5.9% | -2.9% | -4.7% | -0.7% | -5.3% | -0.3% | | 6.1% |
| First 11 months | -0.8% | | -0.9% | -2.1% | 3.5% | -5.6% | -4.7% | -1.4% | -5.2% | -0.0% | | 4.9% |
| Estimates Momentum | 0.3% | 1.1% | 0.9% | 1.7% | 4.5% | -2.7% | -2.2% | -0.3% | 1.6% | -3.2% | | 10.8% |
| 1 Month Change in Earnings Forecast | -0.8% | | 2.0% | 0.7% | 5.0% | 2.1% | -6.7% | -1.5% | 0.0% | -1.7% | | 8.2% |
| Earnings Revision | -0.4% | | 0.8% | 0.7% | 4.3% | -2.9% | -4.8% | -0.0% | -1.1% | 2.5% | | 10.8% |
| Sales Revisions | 1.0% | | 1.6% | -2.3% | 2.8% | | 2.8% | 2.0% | -0.1% | -5.1% | | -11.6% |
| Cash Revisions | -0.9% | | -1.5% | -0.2% | 4.5% | | -3.8% | -2.9% | 1.4% | -4.1% | | 16.6% |

Source: Citi Research, IBES, Worldscope and MSCI

Note: That Quantile performance refers to the spread of returns between the top and bottom quintile of styles, while the Pure performance refers to style performance where others sources of risk exposure such as Country, Sector and other style exposure have been removed. Baskets with less than 5 stocks have been removed. See appendix for more information.

Japan: YTD Leaders and Laggards

Figure 120. Performance Spread Between High (Top 20%) and Low (Bottom 20%), and Pure Factor Portfolios, YTD

| | Quantile Perf. | Pure Perf. | Cons Disc | Cons Staples | Energy | Financials | Health Care | Industrials | Info Tech | Materials | Telcos | Utils |
|--|-------------------|---------------|--------------|-----------------|---------------|---------------|----------------|--------------|---------------|---------------|--------|--------------|
| Valuation | 4.6% | 5.1% | 2.7% | -4.0% | 4.1% | 13.2% | 10.7% | 2.0% | 20.4% | -4.2% | | 18.4% |
| Earnings Yield - 12 month forward | -1.0% | | -3.2% | -3.3% | -0.1% | 12.1% | 5.1% | -2.5% | 3.5% | -10.7% | | -10.7% |
| Earnings Yield- 12 month historical | 2.9% | | -1.8% | -7.6% | -3.3% | 15.5% | -2.4% | 1.9% | 0.5% | -0.7% | | 32.9% |
| Cash Flow To Price | 3.4% | | 4.0% | -11.6% | -7.5% | | 5.9% | -1.5% | 11.9% | -7.9% | | 21.6% |
| Dividend Yield | 12.1% | | 1.4% | -3.9% | 6.1% | 19.4% | -1.9% | 2.8% | 20.9% | 15.9% | | 25.0% |
| Book to Price Ratio | 3.0% | | 4.1% | -2.1% | -2.5% | 10.3% | 9.2% | 0.5% | 12.9% | -6.0% | | -2.7% |
| Sales to Price Ratio | 0.1% | | 6.6% | -3.4% | -11.0% | | 3.9% | -0.5% | 10.4% | 1.7% | | -20.6% |
| EBITDA / EV | 10.0% | | 8.1% | -2.2% | 9.8% | | 7.8% | 3.1% | 16.3% | 1.6% | | 41.1% |
| Sales / EV | 5.0% | | 4.3% | -0.1% | -12.0% | | 6.7% | -1.0% | 14.5% | -2.1% | | 33.7% |
| Growth | 1.9% | -0.2% | -1.0% | 4.1% | -12.6% | -10.6% | -14.0% | 4.1% | -0.9% | 3.4% | | 22.6% |
| Earnings Growth (12 month forward) | -3.1% | | 2.6% | 7.3% | 13.9% | -9.6% | 7.8% | -2.4% | 5.1% | -0.9% | | -10.8% |
| SB Growth-Value Score | 0.5% | | 5.6% | 15.1% | -11.1% | -8.2% | -15.6% | -0.9% | -6.9% | 9.4% | | -6.5% |
| One Year Sales Growth | -0.4% | | -10.4% | 0.1% | 6.7% | | 3.1% | -1.4% | -6.9% | -5.3% | | 19.9% |
| Long Term Earnings Growth | -1.7% | | -3.6% | -9.6% | 3.1% | -1.6% | 7.3% | -1.3% | -2.2% | -10.7% | | -8.5% |
| One Year EPS Growth | -1.2% | | -2.5% | -12.6% | 10.0% | -7.4% | 1.6% | 4.0% | -2.4% | -6.2% | | 16.4% |
| Low Risk | 10.8% | 7.1% | 10.4% | -0.5% | -6.4% | 24.1% | 7.6% | 8.8% | -7.1% | -2.5% | | 30.6% |
| Debt to Equity (Inverted) | 6.7% | | 5.7% | 10.5% | 7.9% | | 6.8% | -2.3% | -10.4% | 8.7% | | 38.7% |
| Earnings Stability | 0.3% | | 12.7% | -0.4% | -11.0% | 4.1% | 3.7% | -6.6% | -3.3% | -12.1% | | 9.8% |
| Beta against MSCI AC World | 8.4% | | 1.6% | 7.6% | 2.8% | 22.3% | 13.3% | 10.8% | -5.2% | 1.5% | | 4.1% |
| Beta against MSCI Country Index | 13.5% | | 3.5% | 5.9% | 2.8% | 21.5% | 12.6% | 12.2% | 2.0% | 9.7% | | 18.7% |
| Size (Market Cap) | -6.0% | -2.7% | -5.7% | -4.2% | 8.6% | -18.2% | -5.0% | 1.5% | -5.6% | -1.5% | | 10.5% |
| Quality | 3.8% | 0.9% | -2.1% | -3.0% | -11.0% | 14.4% | 18.3% | 5.7% | -2.4% | -0.4% | | 18.6% |
| Earnings Certainty | 4.2% | | -0.1% | 1.5% | 7.1% | 13.8% | -5.7% | 0.6% | -5.0% | 3.6% | | 31.1% |
| Return on Equity | 5.8% | | 2.8% | -9.2% | 2.2% | 1.6% | -5.2% | 3.3% | -0.7% | 3.6% | | 36.5% |
| Net Profit Margin on Sales | 4.5% | | 0.5% | -4.3% | 8.4% | | -9.7% | 4.2% | -5.4% | 6.6% | | 36.5% |
| Margin Growth | -1.5% | | 4.0% | -3.6% | -2.4% | -7.2% | 1.3% | -3.1% | -4.2% | -0.4% | | -23.2% |
| Earnings Quality (Accruals) (Inverted) | -0.3% | | -3.0% | -2.7% | -7.9% | | 15.5% | -4.0% | -2.2% | -3.4% | | -7.0% |
| Balance Sheet Quality (NOA) (Inverted) | 3.2% | | -0.6% | 6.1% | -12.0% | | 18.2% | 3.4% | -6.3% | 2.2% | | -16.2% |
| Price Momentum | -8.0% | -5.5% | -4.8% | -11.5% | -8.5% | -10.9% | -0.2% | -5.1% | -12.8% | -14.9% | | -1.0% |
| 3 months | -3.7% | | -4.8% | 0.9% | 2.8% | -2.8% | -2.8% | -5.3% | -7.7% | 5.2% | | 22.2% |
| 12 months | -6.8% | | -0.8% | -7.7% | -4.8% | -11.3% | -5.8% | -3.1% | -14.8% | -11.5% | | -6.6% |
| First 11 months | -6.3% | | -3.5% | -10.8% | -6.6% | -14.1% | -2.3% | -2.6% | -11.9% | -11.7% | | -7.2% |
| Estimates Momentum | 1.0% | 3.3% | 3.5% | -2.1% | 5.3% | -2.8% | 11.5% | -2.3% | 1.9% | -8.8% | | -1.3% |
| 1 Month Change in Earnings Forecast | -3.5% | | -6.6% | -0.6% | 8.0% | 3.9% | 11.9% | -5.8% | 2.1% | -2.3% | | -2.7% |
| Earnings Revision | -3.2% | | 1.5% | -2.1% | 2.9% | -3.0% | 10.7% | -7.5% | -5.6% | 0.3% | | -1.5% |
| Sales Revisions | 3.1% | | 5.4% | -4.5% | 11.6% | | 12.1% | 2.5% | 1.5% | -5.2% | | -7.4% |
| Cash Revisions | -1.5% | | 3.2% | -2.7% | 3.6% | | -0.9% | -5.4% | 4.2% | -8.9% | | 20.7% |

Source: Citi Research, IBES, Worldscope and MSCI

Note: That Quantile performance refers to the spread of returns between the top and bottom quintile of styles, while the Pure performance refers to style performance where others sources of risk exposure such as Country, Sector and other style exposure have been removed. Baskets with less than 5 stocks have been removed. See appendix for more information.

Japan: Macro Factor Sensitivities⁶

Figure 121. GDP Weighted Global Bond Yield (G10)

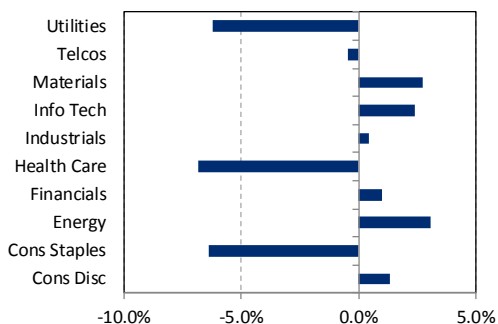


Figure 122. Oil

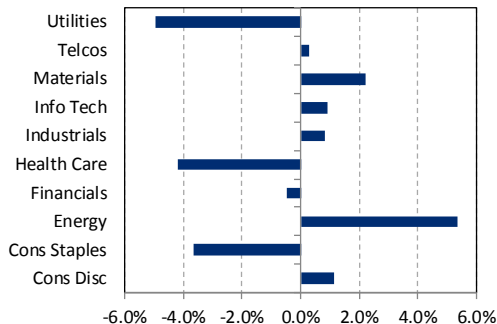


Figure 123. Commodities (GSCI)

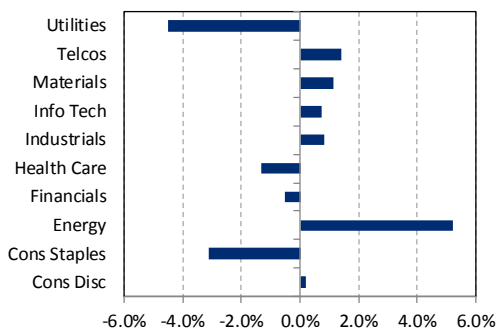


Figure 124. EUR per USD

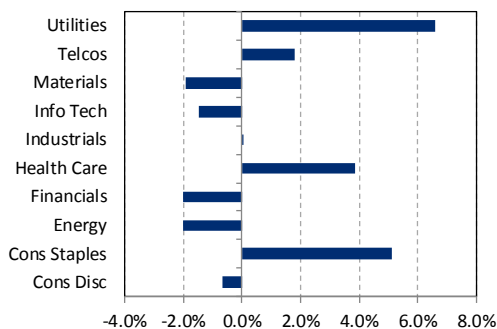


Figure 125. YEN per USD

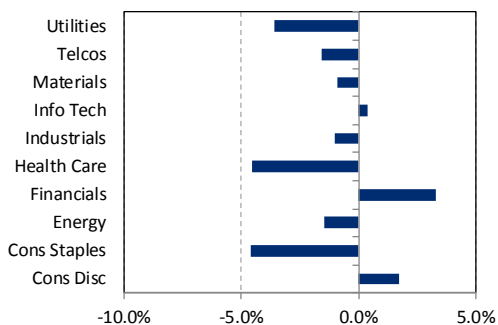


Figure 126. Emerging Market Sovereign Bond Yield

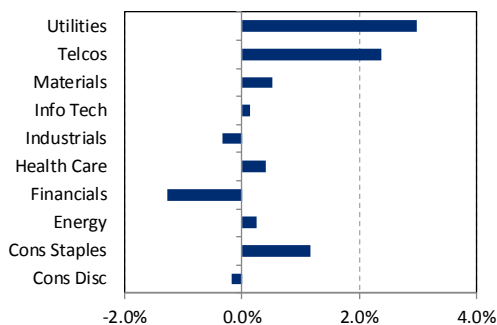


Figure 127. Credit Spreads

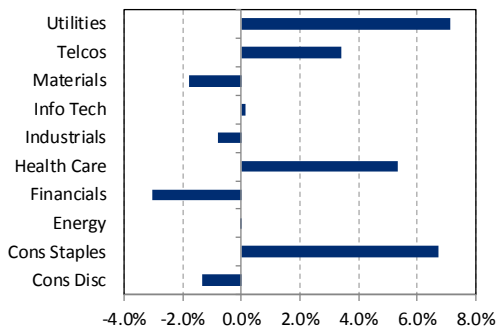
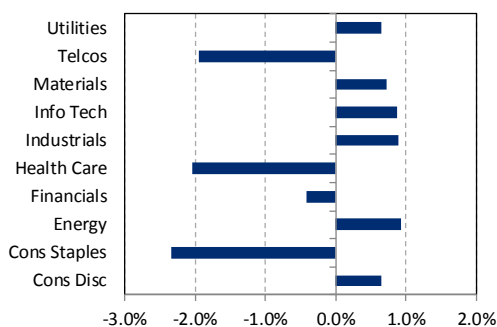


Figure 128. Market (MSCI AC World)



Source: Citi Research, MSCI

⁶ The above charts illustrate predicted *relative returns* from our proprietary risk model (Global RAM) for a one standard deviation change in the underlying macroeconomic factor.

Japan: Style Sector Composition

Figure 129. Estimates Momentum

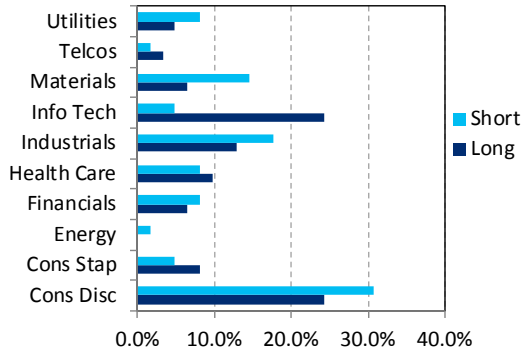


Figure 130. Growth

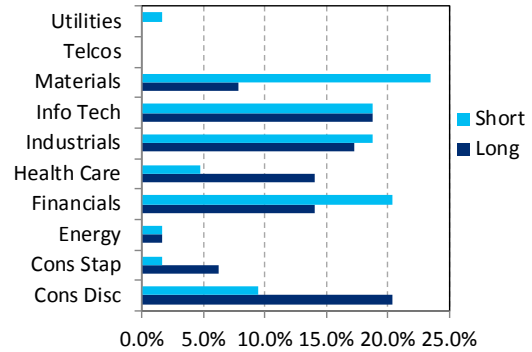


Figure 131. Value

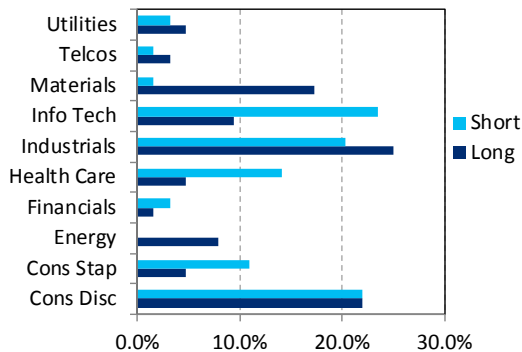


Figure 132. Low Risk

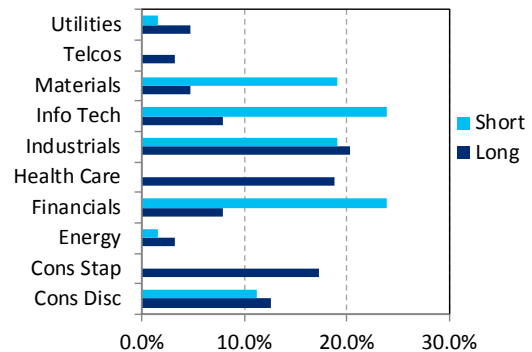


Figure 133. Size

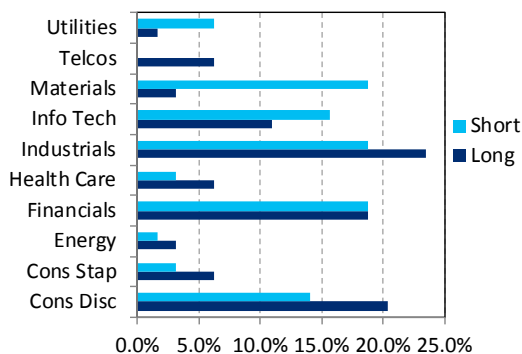


Figure 134. Price Momentum

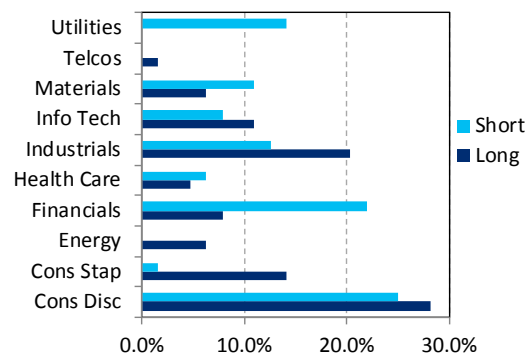
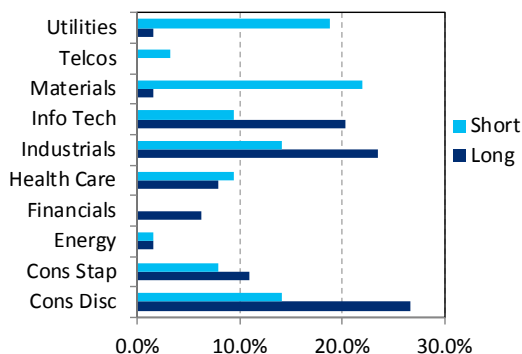


Figure 135. Quality



Style composition is defined as the proportion of each of the long and short style portfolios coming from the relevant regions, country or sector.

Source: Citi Research, MSCI, IBES, Worldscope, DataStream

Japan: Relative Style Valuations

Figure 136. Estimates Momentum

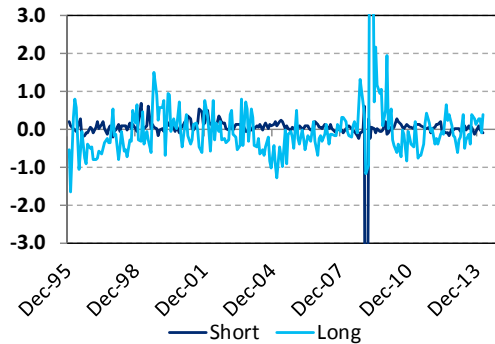


Figure 137. Growth

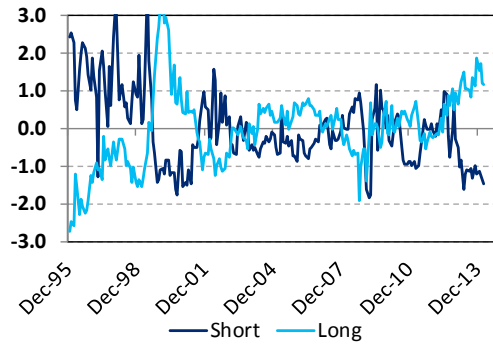


Figure 138. Value

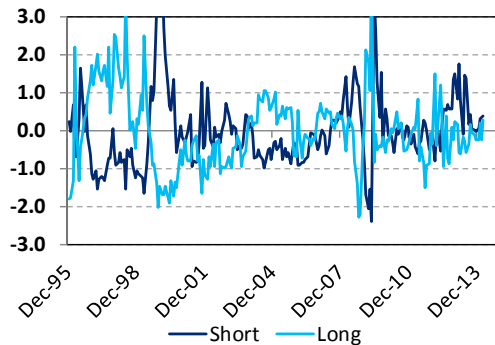


Figure 139. Low Risk

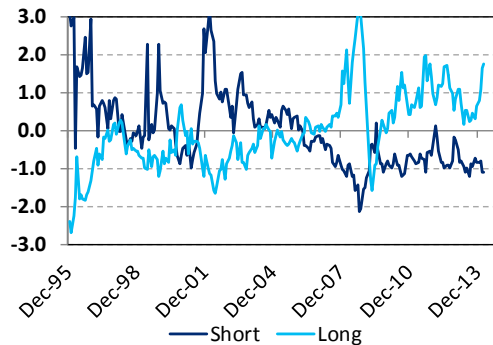


Figure 140. Size

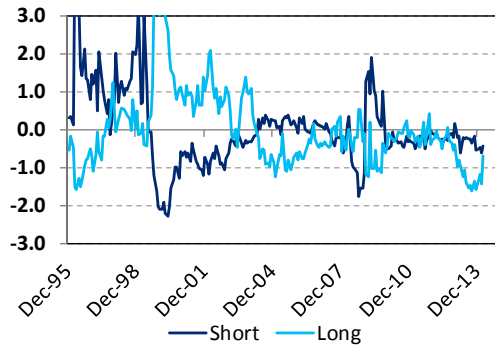


Figure 141. Price Momentum

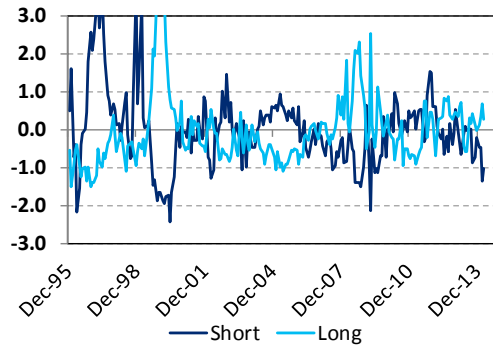
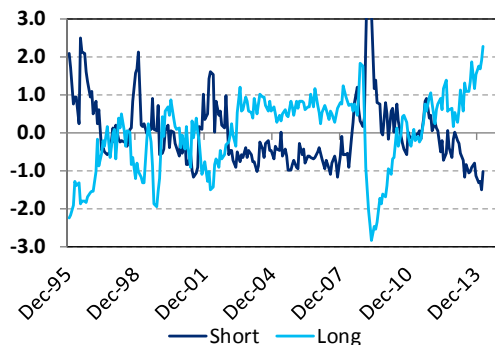


Figure 142. Quality



Relative style valuations calculated using median 12 month forward P/E of the respective long and short style quintiles relative to the benchmark median.

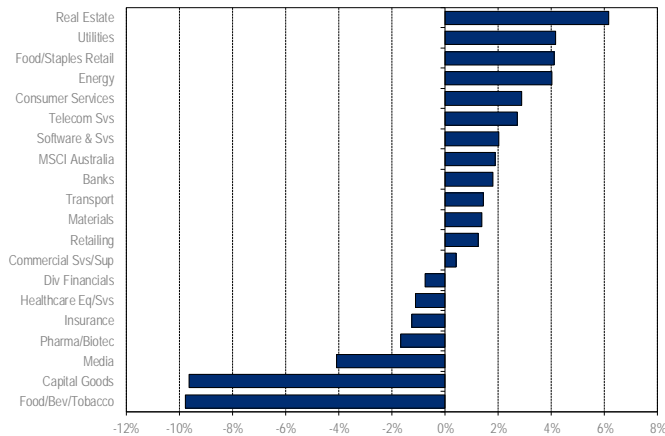
The charts show Z-scored time series for both the long and short relevant valuations. Axes are intentionally capped at +/- 3s.

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Australia

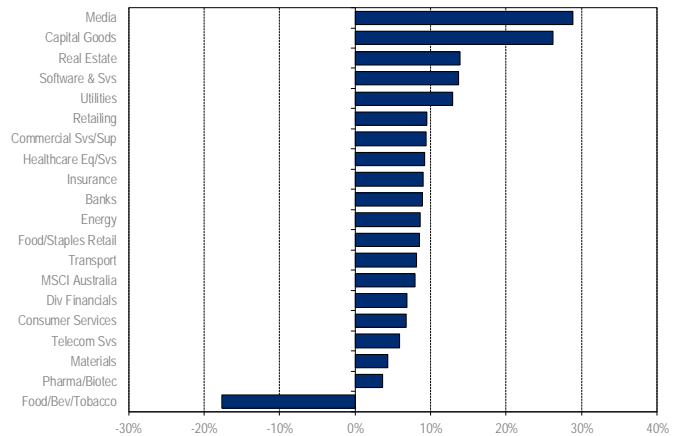
Australia: What Has the Market Done?

Figure 143. One-Month Total USD Returns (Percentage)



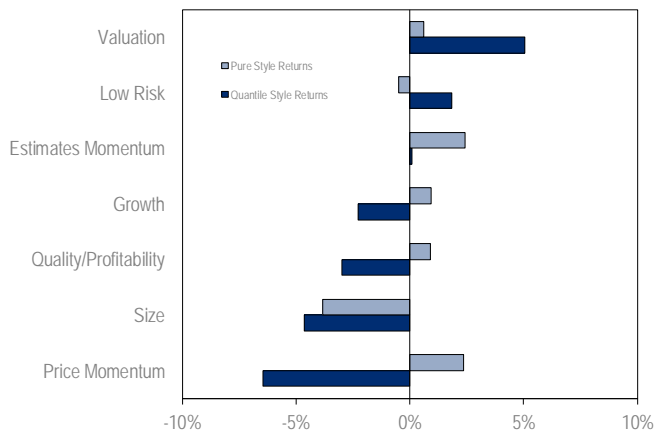
Source: Citi Research, IBES, Worldscope and MSCI

Figure 144. YTD Total USD Returns (Percentage)



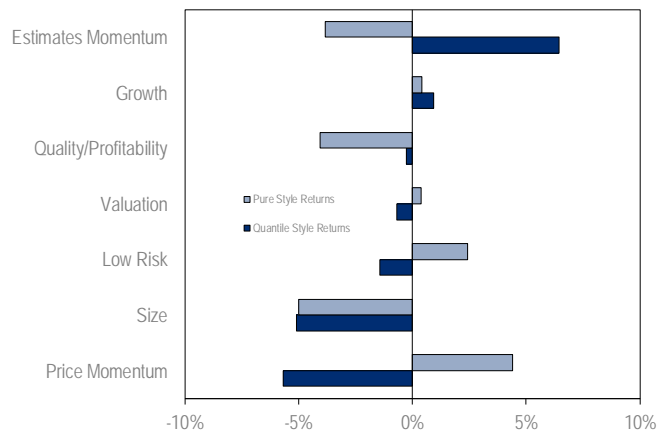
Source: Citi Research, IBES, Worldscope and MSCI

Figure 145. Style Performance Across Market, April 2014



Source: Citi Research, IBES, Worldscope and MSCI

Figure 146. Style Performance Across Market, YTD



Source: Citi Research, IBES, Worldscope and MSCI

Australia: Last Month's Style Leaders and Laggards

Figure 147. Performance Spread Between High (Top 20%) and Low (Bottom 20%), and Pure Factor Portfolios in April 2014

| | Quantile Perf. | Pure Perf. | Cons Disc | Cons Staples | Energy | Financials | Health Care | Industrials | Materials | Utils |
|--|----------------|--------------|---------------|--------------|--------------|--------------|-------------|--------------|---------------|-------|
| Valuation | 5.1% | 0.6% | 15.8% | 21.8% | -0.9% | 5.5% | | 2.4% | 6.3% | |
| Earnings Yield - 12 month forward | 1.7% | | 9.0% | 2.0% | 9.7% | -1.7% | | -9.1% | -6.4% | |
| Earnings Yield- 12 month historical | 2.2% | | 13.3% | 2.0% | 9.7% | 5.9% | | -9.1% | -3.3% | |
| Cash Flow To Price | 4.2% | | 15.8% | -2.1% | -2.7% | | | 2.4% | -6.4% | |
| Dividend Yield | 6.0% | | 10.3% | -2.1% | 10.6% | 4.0% | | -1.4% | -2.4% | |
| Book to Price Ratio | 8.5% | | 9.0% | 3.8% | 3.6% | 4.6% | | 8.4% | 7.8% | |
| Sales to Price Ratio | 3.0% | | 15.8% | 21.8% | -4.1% | | | 2.4% | 0.6% | |
| EBITDA / EV | 6.3% | | 15.8% | -4.2% | -3.6% | | | 0.0% | -4.9% | |
| Sales / EV | 2.5% | | 13.3% | 21.8% | -4.1% | | | 0.0% | -1.2% | |
| Growth | -2.3% | 0.9% | -7.4% | 2.1% | 4.1% | -1.3% | | -8.1% | 0.6% | |
| Earnings Growth (12 month forward) | -2.5% | | -10.3% | 2.1% | -9.7% | -5.2% | | 3.4% | 0.6% | |
| SB Growth-Value Score | -4.8% | | -7.4% | -21.8% | 4.1% | -0.8% | | -5.0% | -1.1% | |
| One Year Sales Growth | 2.7% | | -5.1% | 20.2% | 6.5% | | | -3.9% | 4.0% | |
| Long Term Earnings Growth | -5.2% | | -12.9% | -4.2% | -6.5% | -4.0% | | -8.3% | -3.3% | |
| One Year EPS Growth | -1.8% | | -7.4% | 20.2% | 6.5% | 2.1% | | -3.2% | 4.5% | |
| Low Risk | 1.8% | -0.5% | -1.5% | -3.8% | -9.7% | 3.3% | | 3.9% | -6.6% | |
| Debt to Equity (Inverted) | 4.6% | | -0.3% | 24.0% | 0.5% | | | 1.4% | 3.4% | |
| Earnings Stability | 0.1% | | -8.7% | 19.8% | -2.7% | 1.6% | | -4.0% | -6.6% | |
| Beta against MSCI AC World | 0.8% | | -2.0% | | -6.9% | 2.1% | | 7.2% | 2.7% | |
| Beta against MSCI Country Index | -0.3% | | -2.0% | | -6.9% | 1.0% | | 7.9% | 2.7% | |
| Size (Market Cap) | -4.6% | -3.8% | -15.8% | -3.8% | -6.5% | -0.5% | | -5.1% | -10.1% | |
| Quality | -3.0% | 0.9% | -3.5% | -3.8% | -0.9% | -0.3% | | -1.8% | -4.4% | |
| Earnings Certainty | -0.6% | | -4.9% | -3.8% | 2.7% | -0.3% | | -3.3% | -0.2% | |
| Return on Equity | -3.6% | | -9.0% | -3.8% | -3.6% | 1.3% | | -6.6% | -6.1% | |
| Net Profit Margin on Sales | 2.8% | | -15.8% | 0.4% | 4.1% | | | -6.9% | 1.1% | |
| Margin Growth | 4.8% | | -3.9% | 20.2% | -4.1% | 1.2% | | 6.7% | 9.8% | |
| Earnings Quality (Accruals) (Inverted) | -0.8% | | -3.5% | -24.0% | 3.2% | | | 2.3% | 6.4% | |
| Balance Sheet Quality (NOA) (Inverted) | -4.8% | | -1.2% | -24.0% | -0.9% | | | 0.5% | -4.4% | |
| Price Momentum | -6.5% | 2.4% | -13.3% | 20.2% | -6.9% | -3.4% | | -5.7% | -5.4% | |
| 3 months | -3.4% | | -7.4% | 20.2% | -10.6% | -0.5% | | -1.9% | -3.3% | |
| 12 months | -6.5% | | -13.3% | -2.0% | -6.9% | -2.6% | | -5.1% | -0.5% | |
| First 11 months | -5.9% | | -13.3% | -2.0% | -6.9% | -1.8% | | 1.0% | -0.0% | |
| Estimates Momentum | 0.1% | 2.4% | -4.0% | 1.6% | 6.9% | -4.5% | | -8.3% | 6.2% | |
| 1 Month Change in Earnings Forecast | -3.3% | | -9.0% | 2.1% | -3.6% | -2.2% | | 0.6% | -1.6% | |
| Earnings Revision | -2.8% | | 1.5% | -0.4% | 6.9% | -4.5% | | -4.0% | 6.2% | |
| Sales Revisions | -1.3% | | -4.0% | 4.2% | -2.7% | | | -5.2% | -0.5% | |
| Cash Revisions | 1.4% | | 4.3% | -0.4% | -3.6% | | | 1.5% | 3.5% | |

Source: Citi Research, IBES, Worldscope and MSCI

Note: That Quantile performance refers to the spread of returns between the top and bottom quintile of styles, while the Pure performance refers to style performance where others sources of risk exposure such as Country, Sector and other style exposure have been removed. Baskets with less than 5 stocks have been removed. See appendix for more information.

Australia: YTD Leaders and Laggards

Figure 148. Performance Spread Between High (Top 20%) and Low (Bottom 20%), and Pure Factor Portfolios, YTD

| | Quantile Perf. | Pure Perf. | Cons Disc | Cons Staples | Energy | Financials | Health Care | Industrials | Materials | Utils |
|--|----------------|--------------|---------------|--------------|--------------|--------------|-------------|--------------|---------------|-------|
| Valuation | -0.7% | 0.4% | -0.2% | 32.3% | -3.0% | 5.1% | | -3.3% | 22.0% | |
| Earnings Yield - 12 month forward | -2.5% | | -4.8% | -10.5% | 18.6% | 5.4% | | -2.4% | -20.5% | |
| Earnings Yield- 12 month historical | -7.8% | | 5.9% | -10.5% | 7.4% | 11.6% | | -3.7% | -19.4% | |
| Cash Flow To Price | -1.3% | | -0.2% | 4.0% | -8.9% | | | -3.3% | -11.7% | |
| Dividend Yield | 1.0% | | -8.5% | 4.0% | -9.8% | 0.9% | | -7.8% | -20.0% | |
| Book to Price Ratio | 6.9% | | -7.8% | -28.6% | -5.3% | 5.3% | | -14.9% | 24.1% | |
| Sales to Price Ratio | 1.2% | | -0.2% | 32.3% | 5.0% | | | 16.5% | 8.6% | |
| EBITDA / EV | 2.4% | | -0.2% | 15.3% | | | | 7.8% | -6.2% | |
| Sales / EV | -4.8% | | 4.1% | 8.7% | 5.0% | | | 7.5% | 0.1% | |
| Growth | 0.9% | 0.4% | 16.2% | 11.8% | 4.3% | -1.6% | | 14.6% | -28.1% | |
| Earnings Growth (12 month forward) | 4.6% | | 6.3% | -8.1% | -5.4% | 1.4% | | 11.7% | 19.6% | |
| SB Growth-Value Score | -0.8% | | 16.2% | -14.4% | -5.5% | 1.2% | | 2.7% | -17.9% | |
| One Year Sales Growth | 2.3% | | 6.2% | 62.7% | -3.3% | | | 3.5% | -0.8% | |
| Long Term Earnings Growth | -2.5% | | 6.3% | 15.3% | 1.9% | -5.8% | | 5.7% | 5.5% | |
| One Year EPS Growth | -1.6% | | 16.2% | 34.2% | -2.8% | 4.4% | | 3.7% | -21.7% | |
| Low Risk | -1.4% | 2.4% | -11.7% | 30.3% | -9.1% | 2.9% | | 25.8% | -16.6% | |
| Debt to Equity (Inverted) | 4.1% | | 10.7% | -0.1% | -0.4% | | | -12.1% | 20.5% | |
| Earnings Stability | 7.2% | | 1.9% | 32.1% | -7.2% | 4.1% | | 18.7% | -19.2% | |
| Beta against MSCI AC World | -4.3% | | -2.3% | | -6.1% | -2.6% | | 28.6% | -7.4% | |
| Beta against MSCI Country Index | -7.5% | | -15.1% | | -0.6% | -3.2% | | 3.7% | 0.5% | |
| Size (Market Cap) | -5.1% | -5.0% | -3.1% | 10.0% | 1.9% | -0.1% | | 6.5% | -31.7% | |
| Quality | -0.2% | -4.1% | 14.6% | 30.3% | 6.9% | -5.6% | | -9.4% | 7.6% | |
| Earnings Certainty | -0.2% | | -0.2% | 30.3% | 14.4% | -5.5% | | -10.1% | -28.6% | |
| Return on Equity | 1.4% | | 6.5% | 30.3% | -4.4% | 0.9% | | 29.5% | -16.4% | |
| Net Profit Margin on Sales | 7.7% | | -3.1% | -1.9% | -5.5% | | | 3.5% | -17.3% | |
| Margin Growth | 5.5% | | 1.9% | 56.2% | 4.2% | 0.2% | | 9.9% | -18.5% | |
| Earnings Quality (Accruals) (Inverted) | 6.7% | | 16.1% | -22.5% | 11.6% | | | -11.5% | 33.2% | |
| Balance Sheet Quality (NOA) (Inverted) | -1.5% | | 22.3% | -19.2% | 7.6% | | | 3.5% | 2.8% | |
| Price Momentum | -5.7% | 4.4% | -3.7% | 37.9% | -6.1% | -8.3% | | -5.5% | -23.8% | |
| 3 months | -8.5% | | -11.9% | 29.4% | -8.2% | -11.2% | | 7.7% | -21.6% | |
| 12 months | -5.1% | | -3.7% | 7.8% | -6.1% | -5.5% | | -14.6% | -20.1% | |
| First 11 months | -4.7% | | 2.8% | 7.8% | -6.4% | -3.4% | | -9.2% | -16.5% | |
| Estimates Momentum | 6.5% | -3.8% | 14.9% | 20.8% | 14.3% | -4.3% | | -9.6% | -11.4% | |
| 1 Month Change in Earnings Forecast | 4.7% | | 7.5% | -6.0% | -8.6% | 4.1% | | -5.4% | -2.4% | |
| Earnings Revision | 0.5% | | 0.9% | -9.1% | 19.7% | -5.6% | | -9.0% | -7.0% | |
| Sales Revisions | 3.7% | | 13.6% | 2.7% | -4.6% | | | -3.4% | -13.9% | |
| Cash Revisions | 7.9% | | 28.4% | 9.8% | -0.2% | | | -1.6% | -8.4% | |

Source: Citi Research, IBES, Worldscope and MSCI

Note: That Quantile performance refers to the spread of returns between the top and bottom quintile of styles, while the Pure performance refers to style performance where others sources of risk exposure such as Country, Sector and other style exposure have been removed. Baskets with less than 5 stocks have been removed. See appendix for more information.

Australia: Macro Factor Sensitivities⁷

Figure 149. GDP Weighted Global Bond Yield (G10)

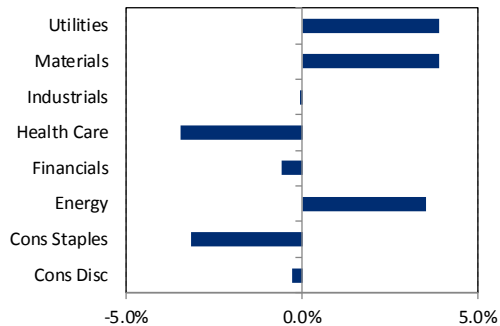


Figure 150. Oil

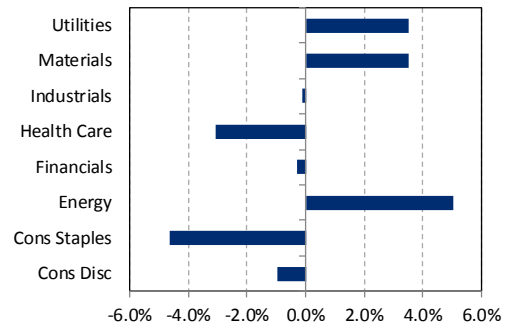


Figure 151. Commodities (GSCI)

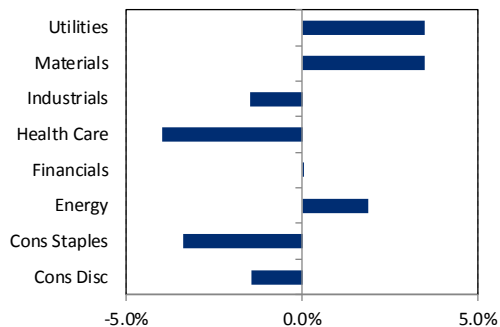


Figure 152. EUR per USD

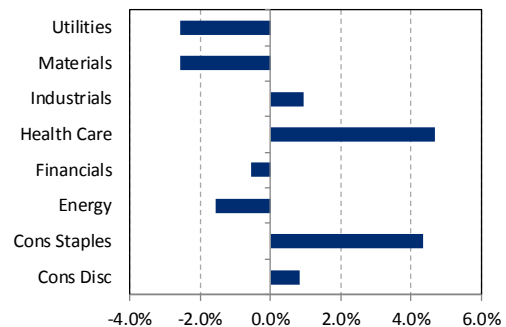


Figure 153. YEN per USD

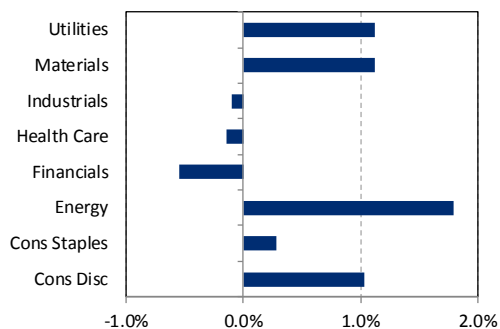


Figure 154. Emerging Market Sovereign Bond Yield

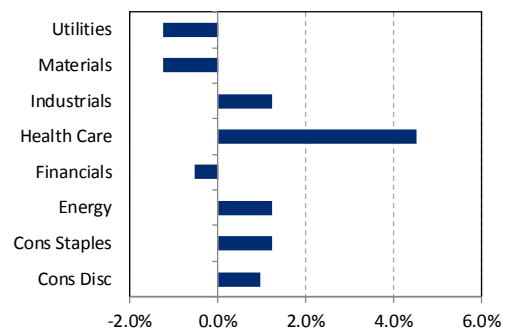


Figure 155. Credit Spreads

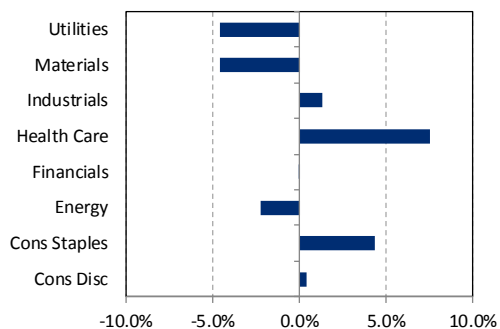
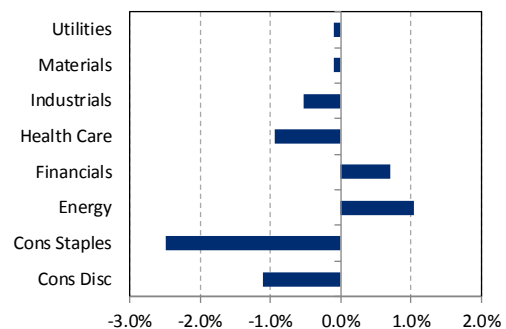


Figure 156. Market (MSCI AC World)



Source: Citi Research, MSCI

⁷ The above charts illustrate predicted *relative returns* from our proprietary risk model (Global RAM) for a one standard deviation change in the underlying macroeconomic factor. Sectors with < 2 stocks have been excluded.

Australia: Style Sector Composition

Figure 157. Estimates Momentum

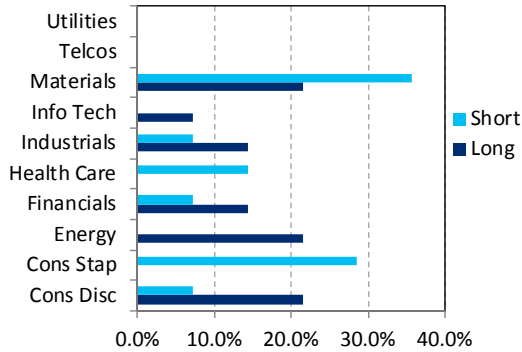


Figure 158. Growth

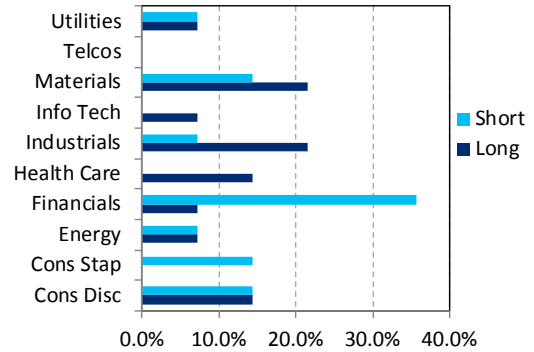


Figure 159. Value

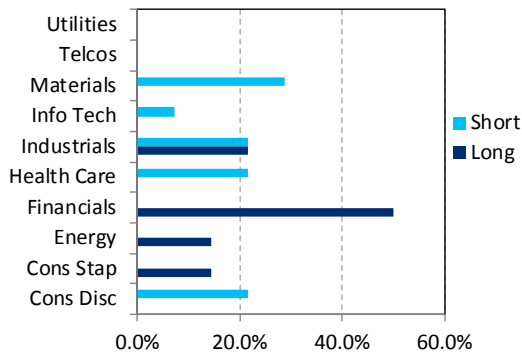


Figure 160. Low Risk

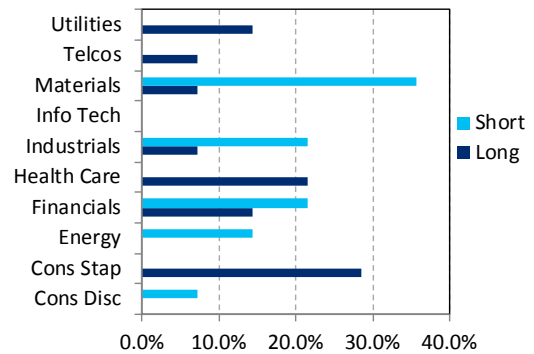


Figure 161. Size

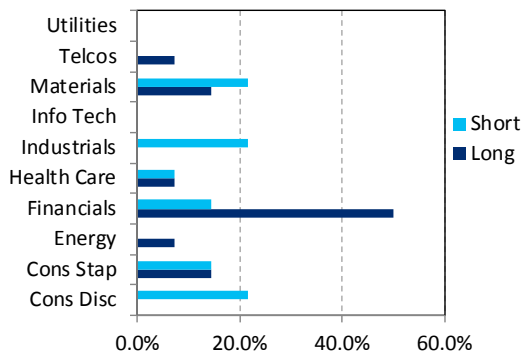


Figure 162. Price Momentum

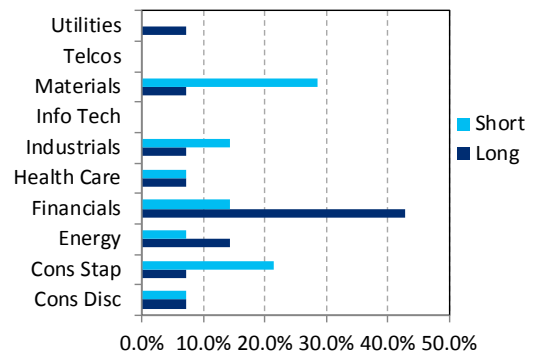
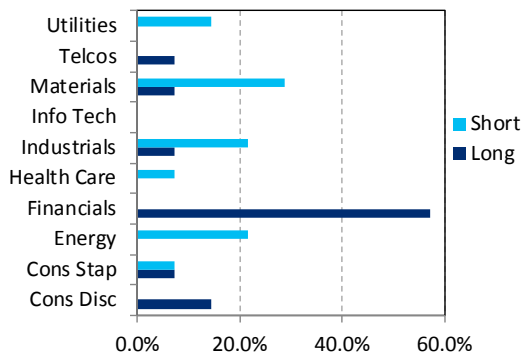


Figure 163. Quality



Style composition is defined as the proportion of each of the long and short style portfolios coming from the relevant regions, country or sector.

Source: Citi Research, MSCI, IBES, Worldscope, DataStream

Australia: Relative Style Valuations

Figure 164. Estimates Momentum

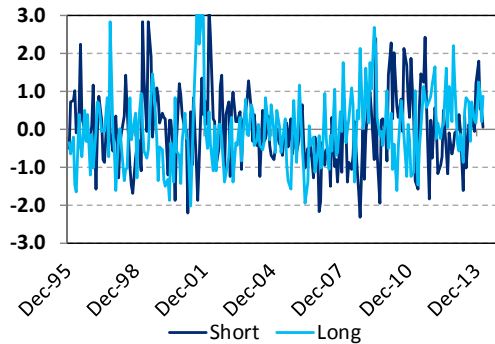


Figure 165. Growth

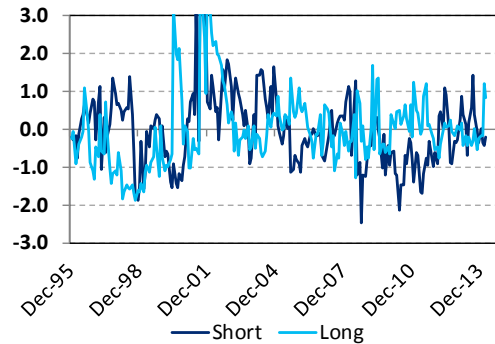


Figure 166. Value

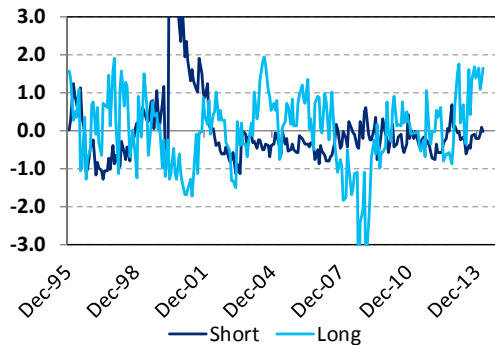


Figure 167. Low Risk

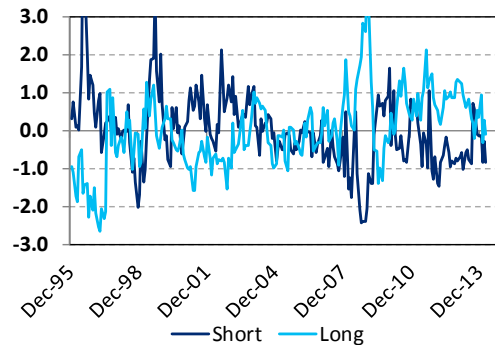


Figure 168. Size

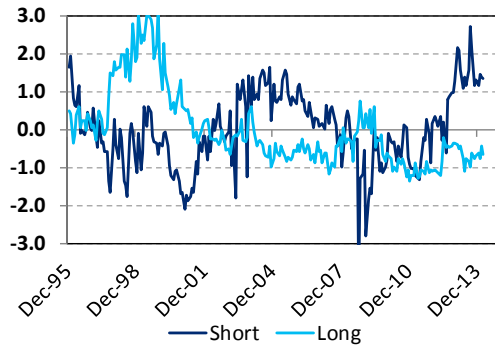


Figure 169. Price Momentum

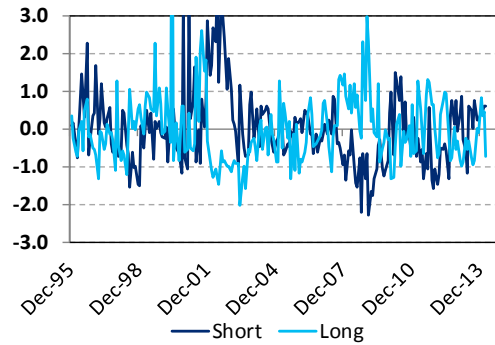
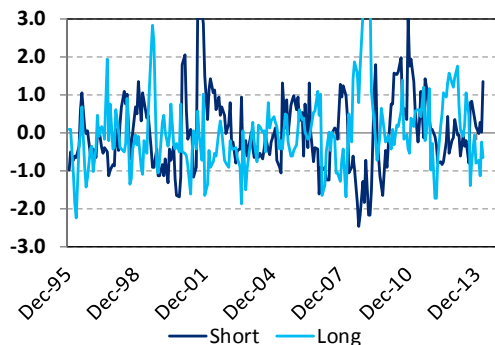


Figure 170. Quality



Relative style valuations calculated using median 12 month forward P/E of the respective long and short style quintiles relative to the benchmark median.

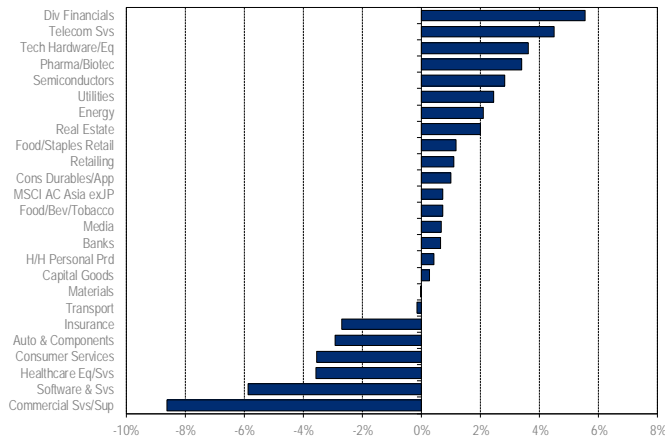
The charts show Z-scored time series for both the long and short relevant valuations. Axes are intentionally capped at $\pm 3\sigma$.

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Asia ex Japan

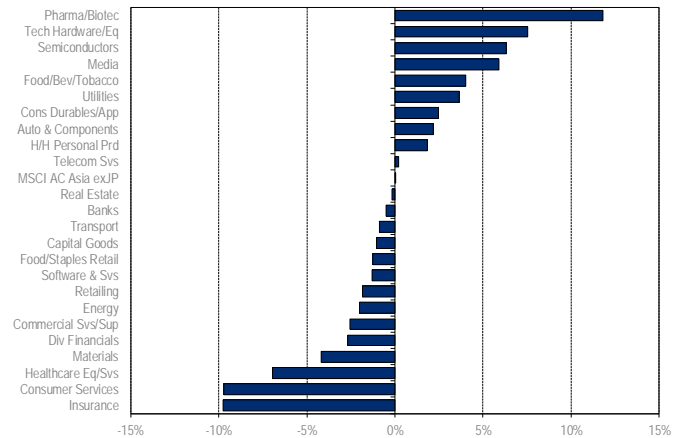
Asia ex Japan: What Has the Market Done?

Figure 171. One-Month Total USD Returns (Percentage)



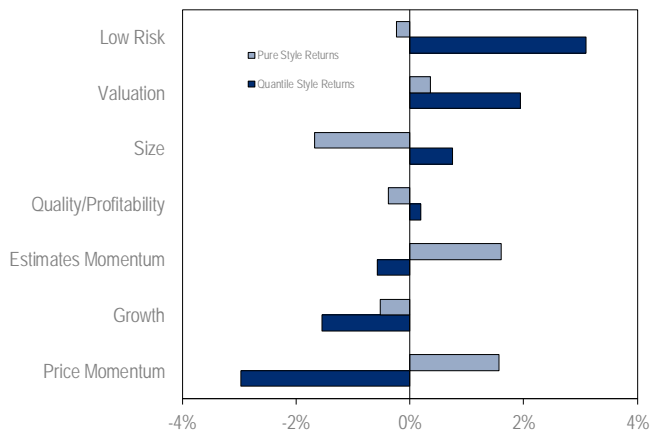
Source: Citi Research, IBES, Worldscope and MSCI

Figure 172. YTD Total USD Returns (Percentage)



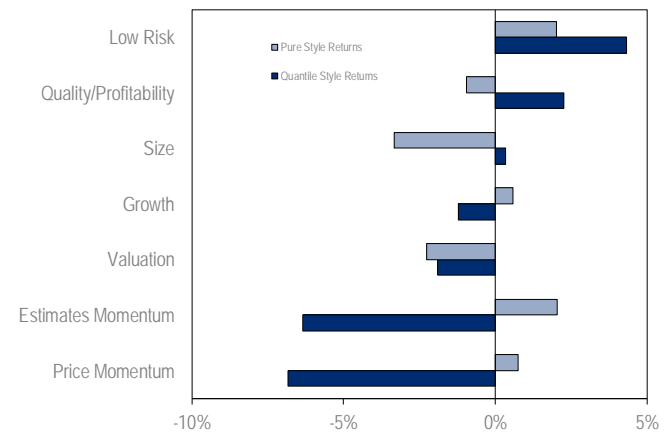
Source: Citi Research, IBES, Worldscope and MSCI

Figure 173. Style Performance Across Market, April 2014



Source: Citi Research, IBES, Worldscope and MSCI

Figure 174. Style Performance Across Market, YTD



Source: Citi Research, IBES, Worldscope and MSCI

Asia ex Japan: Last Month's Style Leaders and Laggards

Figure 175. Performance Spread Between High (Top 20%) and Low (Bottom 20%), and Pure Factor Portfolios in April 2014

| | Quantile Perf. | Pure Perf. | China | Taiwan | South Korea | India | Malaysia | Hong Kong | Singapore | Indonesia | Thailand | Philippines |
|--|----------------|------------|-------|--------|-------------|-------|----------|-----------|-----------|-----------|----------|-------------|
| Valuation | 1.9% | 0.4% | 6.1% | 1.3% | 0.1% | 0.2% | 2.2% | 2.8% | 1.9% | 4.3% | 4.2% | 4.1% |
| Earnings Yield - 12 month forward | 0.1% | | 0.3% | -0.6% | 0.0% | 6.1% | -2.0% | -0.1% | -3.9% | 0.8% | 3.2% | 2.3% |
| Earnings Yield- 12 month historical | 0.3% | | 0.6% | 2.5% | -1.7% | 3.7% | -2.3% | -0.2% | -2.0% | -0.2% | 4.7% | 2.4% |
| Cash Flow To Price | 2.9% | | 4.6% | 4.6% | 0.1% | 1.2% | 0.2% | 1.0% | 0.4% | 3.9% | 2.3% | 0.6% |
| Dividend Yield | 1.2% | | 3.0% | 2.2% | -0.7% | -0.3% | 2.5% | -1.1% | -0.6% | 10.5% | 6.5% | 0.8% |
| Book to Price Ratio | 1.3% | | 2.7% | -1.4% | -0.0% | 7.9% | -0.9% | 0.7% | 4.7% | 0.6% | 3.2% | 3.7% |
| Sales to Price Ratio | 2.1% | | 4.7% | 0.1% | -1.4% | -0.3% | 3.1% | 0.5% | 0.6% | 2.7% | -0.2% | 0.2% |
| EBITDA / EV | 3.7% | | 7.9% | 5.3% | 2.5% | -0.2% | 1.7% | -0.2% | 1.0% | 5.6% | 0.1% | 3.4% |
| Sales / EV | 1.6% | | 3.3% | 1.1% | -0.5% | 2.1% | -1.3% | -1.4% | -0.5% | 4.7% | -0.2% | 0.6% |
| Growth | -1.5% | -0.5% | -4.3% | 2.3% | -0.4% | 2.3% | 2.0% | -3.4% | 1.9% | -8.8% | 1.4% | 2.3% |
| Earnings Growth (12 month forward) | -0.8% | | -3.1% | -2.6% | -0.2% | -1.7% | -0.1% | 0.1% | 2.7% | 2.5% | 0.2% | -0.2% |
| SB Growth-Value Score | -1.6% | | -4.0% | 3.2% | -1.8% | 1.2% | 0.8% | -0.1% | 1.6% | -3.1% | -0.9% | -2.0% |
| One Year Sales Growth | -1.5% | | -2.3% | -1.1% | 1.6% | -0.8% | 1.2% | -4.8% | 1.0% | -12.3% | 1.7% | 1.5% |
| Long Term Earnings Growth | 0.2% | | -2.2% | 0.6% | 0.9% | 5.7% | 0.5% | -0.7% | -1.7% | -8.6% | 0.2% | 3.0% |
| One Year EPS Growth | -1.1% | | -1.1% | 0.3% | -0.2% | 2.6% | 1.9% | -3.4% | -1.1% | -15.2% | -0.7% | 3.7% |
| Low Risk | 3.1% | -0.2% | 6.8% | 1.8% | 4.4% | -1.0% | 2.3% | -1.8% | -2.0% | -3.1% | -2.3% | -3.4% |
| Debt to Equity (Inverted) | -0.6% | | 3.5% | 3.1% | -0.2% | -2.9% | 0.8% | -1.5% | 1.6% | -3.6% | 1.0% | 2.1% |
| Earnings Stability | -0.1% | | 0.7% | 3.9% | 2.4% | 2.1% | 0.9% | -4.3% | 0.8% | -7.1% | 2.8% | 2.9% |
| Beta against MSCI AC World | 3.0% | | 7.0% | 1.8% | 3.1% | -2.2% | 3.4% | -1.2% | -0.9% | -0.6% | -1.4% | -4.5% |
| Beta against MSCI Country Index | 3.2% | | 8.3% | 0.7% | 3.2% | -2.5% | 2.9% | 0.5% | -2.8% | 4.8% | 1.0% | -4.4% |
| Size (Market Cap) | 0.7% | -1.7% | 0.6% | 1.4% | -1.8% | -3.6% | 2.0% | -2.6% | -2.6% | -3.4% | 0.9% | 1.8% |
| Quality | 0.2% | -0.4% | 2.8% | 1.9% | -0.6% | -4.1% | 3.5% | -3.0% | -0.9% | -1.2% | 0.5% | 2.0% |
| Earnings Certainty | 0.1% | | -0.3% | -1.3% | -1.0% | -3.2% | 1.7% | -1.3% | -4.2% | -2.8% | 2.0% | 4.0% |
| Return on Equity | -0.1% | | -0.8% | 3.6% | -1.5% | -7.5% | 1.4% | -7.4% | -4.0% | 1.1% | 0.9% | -2.9% |
| Net Profit Margin on Sales | -0.1% | | -4.2% | 2.3% | -0.1% | -1.0% | -0.2% | -1.2% | -0.1% | -7.2% | 1.6% | -0.2% |
| Margin Growth | 0.0% | | 2.1% | -1.5% | 2.3% | -0.9% | 2.0% | -1.3% | -4.1% | 3.1% | -3.4% | 5.2% |
| Earnings Quality (Accruals) (Inverted) | -0.3% | | 2.2% | -5.6% | 0.0% | -0.8% | 1.1% | 1.7% | 2.5% | 0.2% | -0.2% | -2.4% |
| Balance Sheet Quality (NOA) (Inverted) | 0.9% | | 3.8% | 3.2% | -3.5% | -1.9% | 3.6% | -5.6% | -0.5% | -5.3% | 2.3% | 5.9% |
| Price Momentum | -3.0% | 1.6% | -2.9% | -1.4% | -1.4% | 3.3% | -1.1% | -7.5% | -2.1% | 1.1% | -4.4% | -3.1% |
| 3 months | 1.3% | | -3.2% | 4.5% | 0.3% | -1.4% | -0.7% | -3.1% | 0.3% | -7.9% | 2.6% | -0.8% |
| 12 months | -3.8% | | -3.5% | -1.9% | -4.1% | 3.5% | 0.2% | -7.1% | -3.5% | 7.6% | -5.5% | -4.4% |
| First 11 months | -4.4% | | -2.3% | -2.0% | -4.2% | 2.6% | 0.2% | -5.8% | -4.4% | 8.2% | -6.2% | -2.7% |
| Estimates Momentum | -0.6% | 1.6% | -2.4% | 1.6% | 0.3% | 2.5% | 3.2% | -4.6% | -2.3% | 1.4% | -1.8% | 0.7% |
| 1 Month Change in Earnings Forecast | -1.7% | | -4.3% | -2.2% | 1.4% | 3.9% | 1.3% | -3.0% | -1.7% | -2.5% | -3.4% | -5.4% |
| Earnings Revision | -1.0% | | -2.6% | 1.0% | 0.8% | 1.4% | 2.7% | -4.6% | -2.7% | 1.5% | -1.3% | 0.7% |
| Sales Revisions | -1.1% | | -1.9% | -3.2% | 3.9% | 1.8% | 2.4% | -3.7% | 3.1% | -10.2% | -1.9% | 3.3% |
| Cash Revisions | 1.3% | | -3.1% | 1.0% | 0.9% | 0.1% | 2.2% | -0.0% | -3.3% | 0.3% | -1.7% | -1.2% |

Source: Citi Research, IBES, Worldscope and MSCI

Note: That Quantile performance refers to the spread of returns between the top and bottom quintile of styles, while the Pure performance refers to style performance where others sources of risk exposure such as Country, Sector and other style exposure have been removed. Baskets with less than 5 stocks have been removed. See appendix for more information.

Asia ex Japan: YTD Leaders and Laggards

Figure 176. Performance Spread Between High (Top 20%) and Low (Bottom 20%), and Pure Factor Portfolios, YTD

| | Quantile Perf. | Pure Perf. | China | Taiwan | South Korea | India | Malaysia | Hong Kong | Singapore | Indonesia | Thailand | Philippines |
|--|----------------|--------------|--------------|--------------|---------------|---------------|--------------|---------------|---------------|--------------|---------------|--------------|
| Valuation | -1.9% | -2.3% | -5.7% | 6.9% | 0.3% | 8.6% | 3.4% | 7.2% | 18.8% | -7.5% | -5.9% | 3.7% |
| Earnings Yield - 12 month forward | -3.0% | | -6.6% | 0.9% | 2.1% | 10.9% | -0.4% | -1.2% | 13.1% | 2.4% | 5.8% | 2.7% |
| Earnings Yield- 12 month historical | -3.0% | | -5.5% | 7.0% | -5.0% | 4.9% | -0.7% | -0.0% | 14.2% | 7.1% | 14.3% | 3.5% |
| Cash Flow To Price | -0.6% | | -7.4% | 5.9% | 5.3% | 7.9% | 2.4% | 1.9% | 19.9% | -13.0% | 2.9% | -3.1% |
| Dividend Yield | 0.1% | | -1.5% | 6.3% | -1.9% | 12.2% | 7.2% | 7.4% | 3.5% | -3.4% | 3.9% | -9.4% |
| Book to Price Ratio | -3.3% | | -2.0% | -5.1% | -4.2% | 7.7% | 2.8% | 5.5% | 9.3% | -0.9% | -1.5% | 11.8% |
| Sales to Price Ratio | -3.2% | | -4.4% | -3.9% | -3.4% | 11.1% | -4.2% | 0.4% | 24.2% | -9.8% | -4.3% | 6.3% |
| EBITDA / EV | 1.0% | | -5.0% | 6.7% | 3.4% | 4.6% | 6.1% | 9.9% | 9.7% | -19.2% | -5.5% | -2.2% |
| Sales / EV | -2.8% | | -4.6% | 3.2% | -2.6% | 8.4% | -3.7% | -8.1% | 16.2% | -9.4% | -8.8% | 11.5% |
| Growth | -1.2% | 0.6% | -3.0% | 5.6% | 2.3% | -3.2% | 0.0% | -10.5% | -5.4% | -1.0% | 7.7% | 9.6% |
| Earnings Growth (12 month forward) | 0.3% | | -4.5% | 0.1% | 4.0% | -3.0% | -0.5% | 2.7% | 2.3% | 4.7% | 1.0% | 0.6% |
| SB Growth-Value Score | -3.2% | | -1.5% | 8.8% | -0.1% | -5.4% | -4.8% | -0.9% | -8.6% | -3.4% | 7.9% | -1.7% |
| One Year Sales Growth | 0.8% | | -10.5% | 3.6% | 5.8% | -5.6% | -2.5% | -13.4% | 23.1% | -2.9% | 3.2% | -3.0% |
| Long Term Earnings Growth | 6.5% | | -1.1% | 4.7% | 3.8% | -1.9% | -2.7% | -3.8% | -3.7% | 14.0% | 8.1% | -5.5% |
| One Year EPS Growth | 1.4% | | -3.8% | -0.1% | 0.8% | 1.4% | 2.5% | -5.5% | -2.4% | -2.1% | 4.5% | -3.7% |
| Low Risk | 4.3% | 2.0% | 4.4% | 0.0% | 8.0% | -9.6% | 1.4% | 4.9% | -4.3% | 2.1% | -4.0% | -8.7% |
| Debt to Equity (Inverted) | -2.3% | | -3.2% | 4.3% | 0.4% | -7.5% | -1.7% | -0.2% | -15.1% | -7.9% | 6.1% | 17.0% |
| Earnings Stability | 2.8% | | 0.4% | 2.4% | 2.9% | -7.6% | -1.3% | -6.6% | -5.8% | 10.7% | 10.9% | -2.7% |
| Beta against MSCI AC World | 3.3% | | 1.9% | 4.8% | 6.0% | -6.3% | 1.2% | 8.4% | -7.0% | -10.4% | 3.6% | -14.6% |
| Beta against MSCI Country Index | 4.4% | | 8.9% | -0.4% | 11.8% | -12.3% | 1.7% | 12.4% | -3.5% | -15.9% | -2.6% | -13.8% |
| Size (Market Cap) | 0.3% | -3.3% | 7.7% | 0.8% | -11.0% | -5.0% | -1.8% | -6.8% | -10.4% | 1.1% | -0.9% | -1.7% |
| Quality | 2.3% | -0.9% | -0.9% | 11.4% | 5.9% | -6.9% | 7.3% | -10.6% | -7.7% | 1.6% | 6.3% | 5.0% |
| Earnings Certainty | 1.0% | | -6.8% | 1.4% | -2.0% | -8.8% | -1.2% | -6.5% | 0.1% | 11.9% | 7.3% | -3.4% |
| Return on Equity | 4.2% | | -4.9% | 12.3% | -6.7% | -6.0% | 2.7% | -11.8% | -6.5% | 6.1% | 3.6% | -3.1% |
| Net Profit Margin on Sales | 3.4% | | -2.5% | 7.6% | -5.5% | -1.9% | 3.0% | -6.4% | -18.6% | 3.8% | 7.3% | 4.1% |
| Margin Growth | 0.2% | | 6.5% | 0.8% | 2.1% | -8.6% | 1.8% | -5.1% | -15.4% | 23.5% | 2.6% | 6.6% |
| Earnings Quality (Accruals) (Inverted) | -0.1% | | 2.1% | -4.5% | -0.4% | 4.9% | 6.1% | 0.3% | -4.0% | 0.1% | 4.2% | -8.8% |
| Balance Sheet Quality (NOA) (Inverted) | 2.9% | | 0.9% | 10.0% | 4.9% | 3.5% | 9.2% | -15.1% | -14.1% | -11.8% | 5.6% | 13.7% |
| Price Momentum | -6.8% | 0.8% | 7.2% | -3.8% | -3.1% | -20.7% | -7.0% | -15.7% | -8.1% | 0.7% | -11.3% | -5.7% |
| 3 months | -4.1% | | 0.0% | 3.9% | -3.2% | -27.4% | -0.4% | 1.6% | 8.3% | -15.1% | -9.3% | -2.3% |
| 12 months | -6.4% | | 9.0% | -4.6% | -2.5% | -13.8% | -6.3% | -16.0% | -12.3% | 8.9% | -7.1% | -12.3% |
| First 11 months | -6.1% | | 11.2% | -5.2% | -4.6% | -16.0% | -6.4% | -16.2% | -12.4% | 11.1% | 4.9% | -7.4% |
| Estimates Momentum | -6.1% | 2.0% | 1.6% | 0.5% | -5.1% | -9.5% | 4.3% | -14.5% | -2.2% | -6.6% | -9.8% | 4.2% |
| 1 Month Change in Earnings Forecast | -5.8% | | -2.0% | -1.6% | 9.5% | -19.0% | 4.2% | -9.5% | -1.1% | 3.8% | -9.3% | 2.6% |
| Earnings Revision | -6.4% | | 1.1% | 0.9% | -2.9% | -11.3% | 3.5% | -14.0% | -4.2% | -1.3% | -10.5% | -5.4% |
| Sales Revisions | -5.5% | | 3.9% | 0.8% | -5.7% | -16.9% | -5.7% | -24.5% | -5.1% | -15.3% | -10.1% | 16.4% |
| Cash Revisions | -1.1% | | 5.5% | -0.4% | -10.8% | -10.7% | -2.7% | -11.8% | -2.6% | 8.1% | -4.3% | 9.6% |

Source: Citi Research, IBES, Worldscope and MSCI

Note: That Quantile performance refers to the spread of returns between the top and bottom quintile of styles, while the Pure performance refers to style performance where others sources of risk exposure such as Country, Sector and other style exposure have been removed. Baskets with less than 5 stocks have been removed. See appendix for more information.

Asia ex Japan: Macro Factor Sensitivities⁸

Figure 177. GDP Weighted Global Bond Yield (G10)

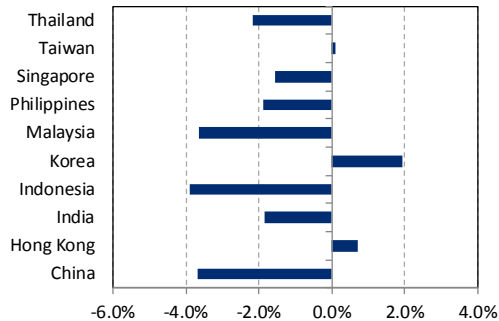


Figure 178. Oil

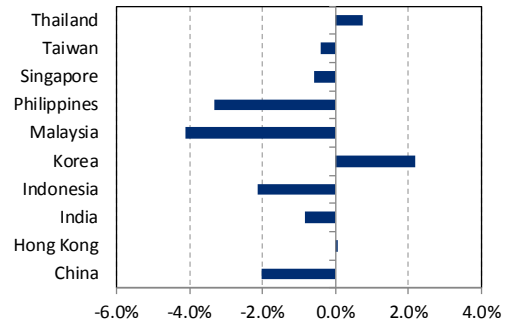


Figure 179. Commodities (GSCI)

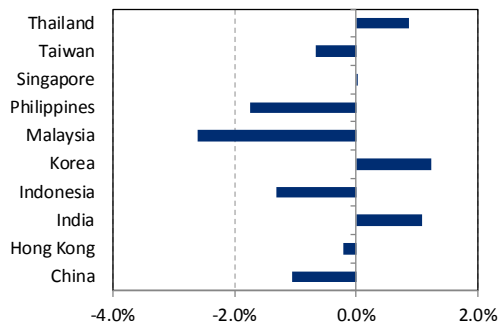


Figure 180. EUR per USD

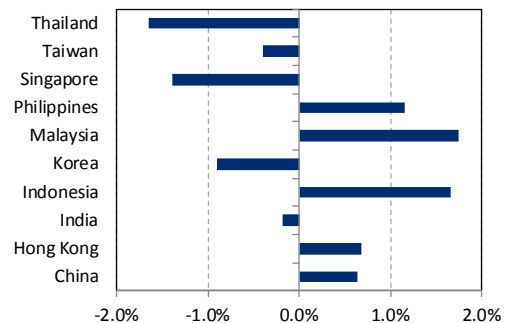


Figure 181. YEN per USD

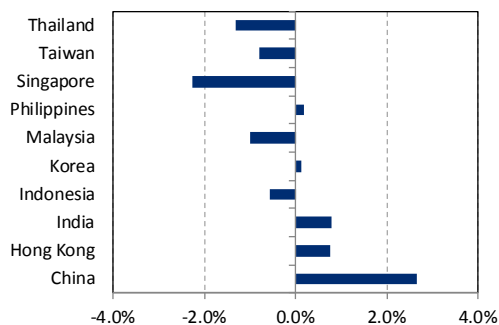


Figure 182. Emerging Market Sovereign Bond Yield

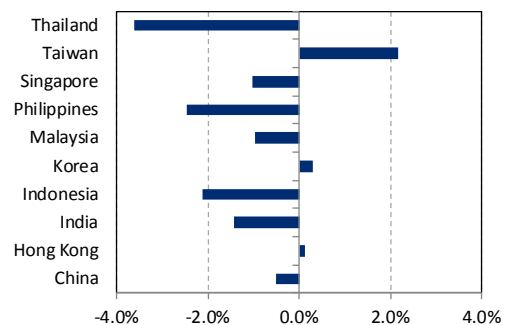


Figure 183. Credit Spreads

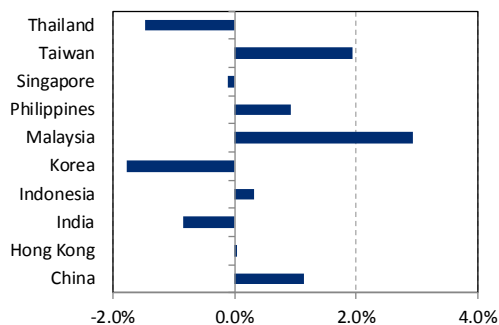
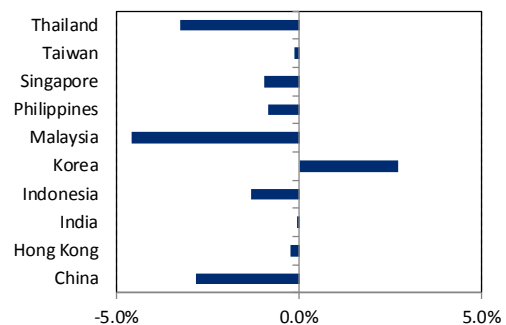


Figure 184. Market (MSCI AC World)



Source: Citi Research, MSCI

⁸ The above charts illustrate predicted *relative returns* from our proprietary risk model (Global RAM) for a one standard deviation change in the underlying macroeconomic factor.

Asia ex Japan: Style Country Composition

Figure 185. Estimates Momentum

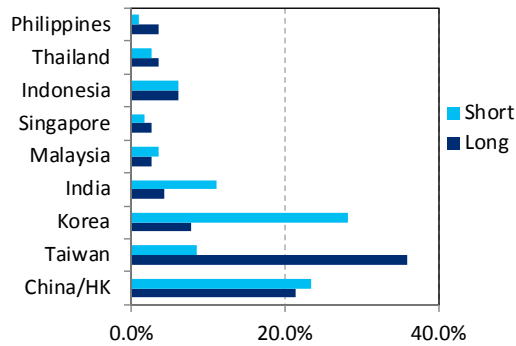


Figure 186. Growth

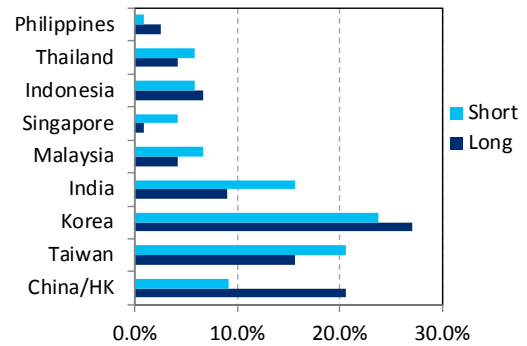


Figure 187. Value

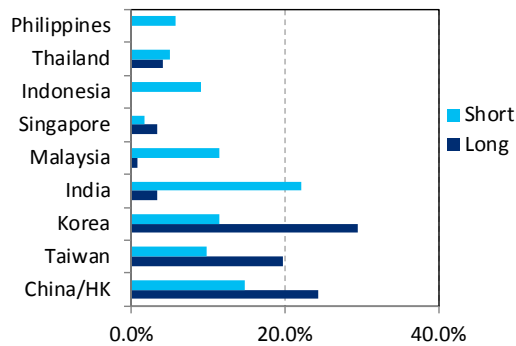


Figure 188. Low Risk

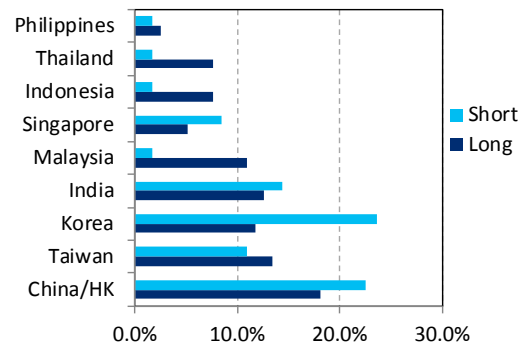


Figure 189. Size

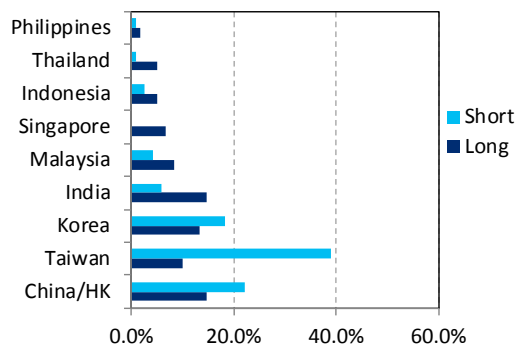


Figure 190. Price Momentum

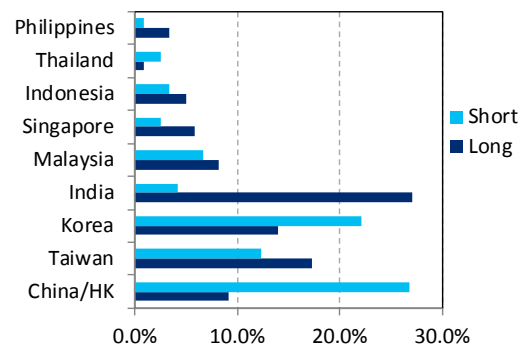
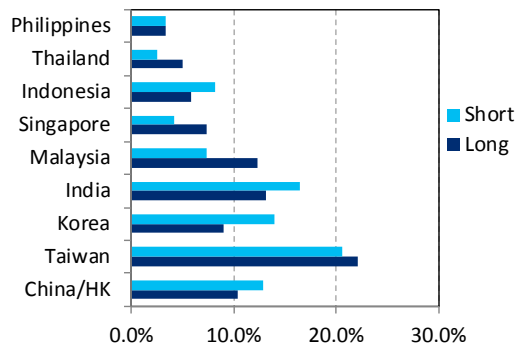


Figure 191. Quality



Style composition is defined as the proportion of each of the long and short style portfolios coming from the relevant regions, country or sector.

Source: Citi Research, MSCI, IBES, Worldscope, DataStream

Asia ex Japan: Relative Style Valuations

Figure 192. Estimates Momentum

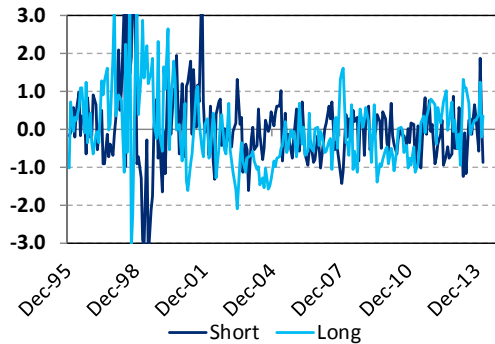


Figure 193. Growth

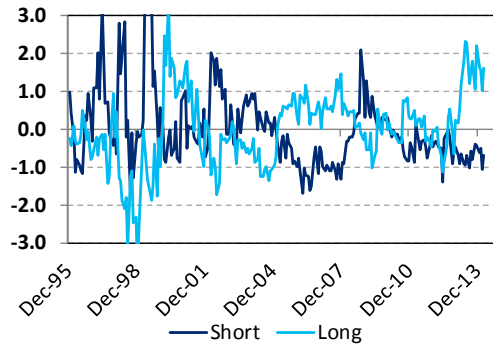


Figure 194. Value

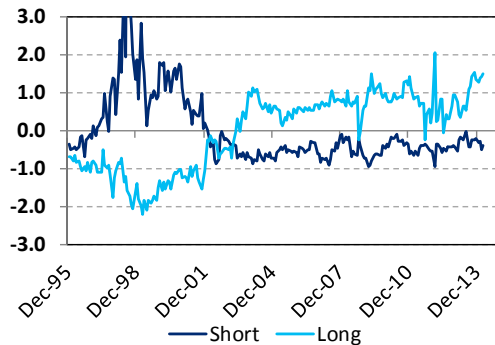


Figure 195. Low Risk

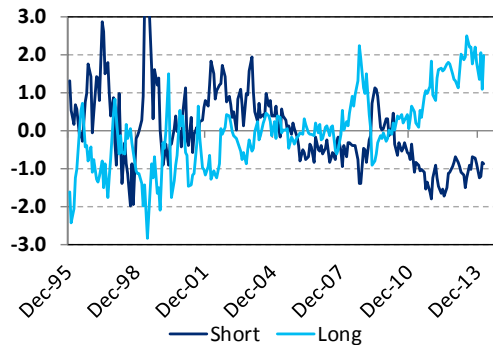


Figure 196. Size

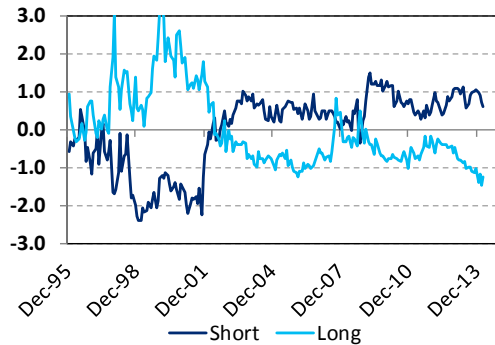


Figure 197. Price Momentum

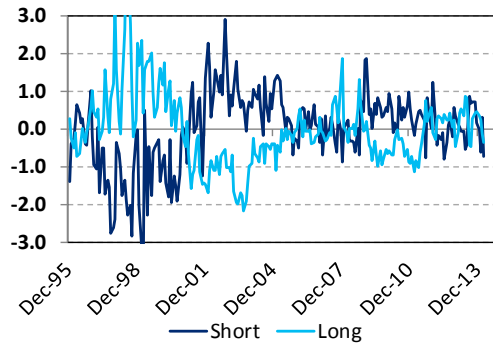
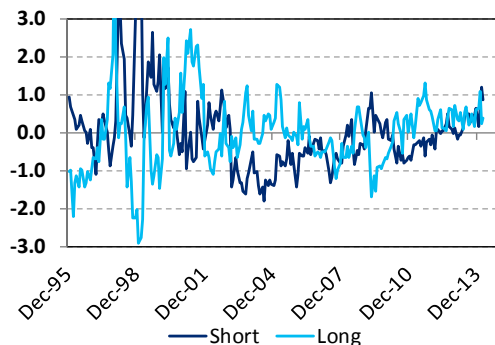


Figure 198. Quality



Relative style valuations calculated using median 12 month forward P/E of the respective long and short style quintiles relative to the benchmark median.

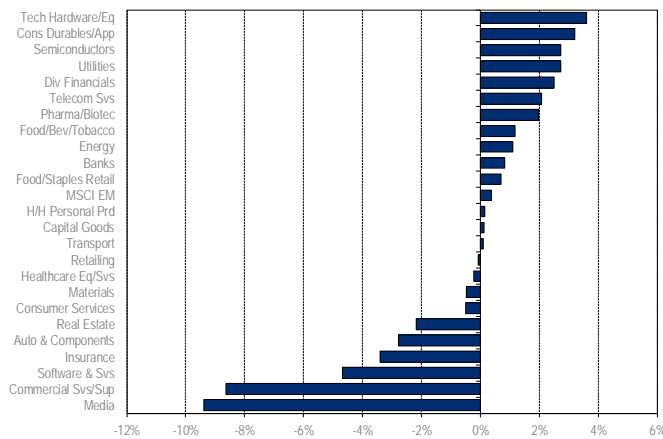
The charts show Z-scored time series for both the long and short relevant valuations. Axes are intentionally capped at $\pm 3\sigma$.

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Emerging Markets

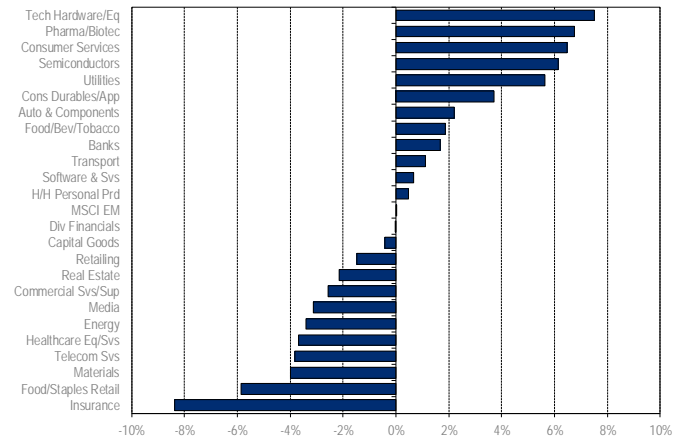
Emerging Markets: What Has the Market Done?

Figure 199. One-Month Total USD Returns (Percentage)



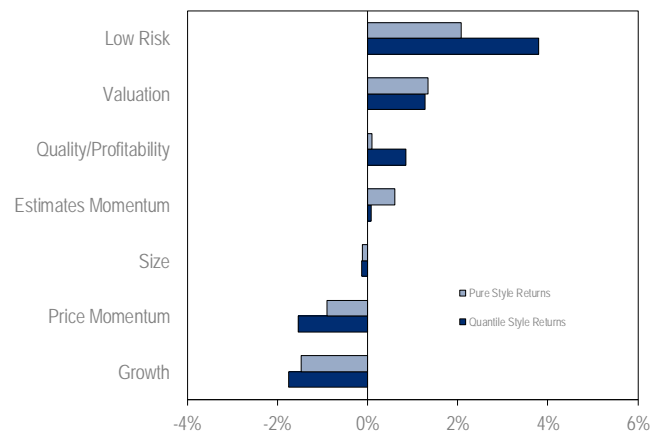
Source: Citi Research, IBES, Worldscope and MSCI

Figure 200. YTD Total USD Returns (Percentage)



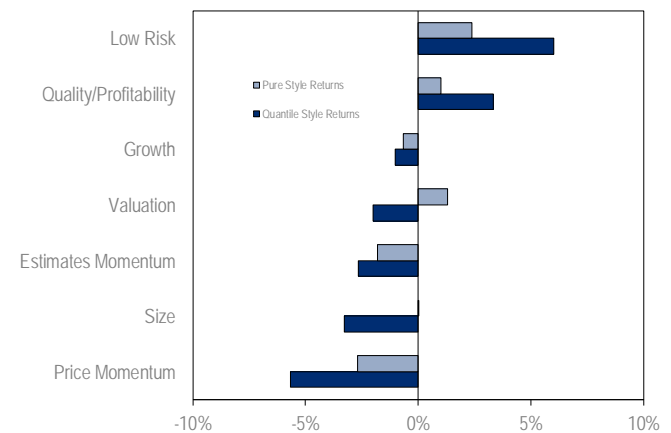
Source: Citi Research, IBES, Worldscope and MSCI

Figure 201. Style Performance Across Market, April 2014



Source: Citi Research, IBES, Worldscope and MSCI

Figure 202. Style Performance Across Market, YTD



Source: Citi Research, IBES, Worldscope and MSCI

Emerging Markets: Last Month's Style Leaders and Laggards

Figure 203. Performance Spread Between High (Top 20%) and Low (Bottom 20%), and Pure Factor Portfolios in April 2014

| | Quantile Perf. | Pure Perf. | Brazil | Russia | India | China | South Africa | Latin America | Emerging Europe | Emerging Asia |
|--|----------------|--------------|--------------|--------------|--------------|--------------|--------------|---------------|-----------------|---------------|
| Valuation | 1.3% | 1.3% | 1.5% | -5.2% | 0.2% | 6.1% | 3.5% | 0.3% | 1.0% | 1.6% |
| Earnings Yield - 12 month forward | 1.4% | | 4.2% | -3.9% | 6.1% | 0.3% | 0.2% | 2.4% | 0.9% | 0.7% |
| Earnings Yield- 12 month historical | 0.8% | | -0.4% | -8.0% | 3.7% | 0.6% | 0.5% | 0.8% | -0.3% | 0.4% |
| Cash Flow To Price | 2.1% | | 1.2% | -9.9% | 1.2% | 4.6% | -2.0% | 0.9% | -1.1% | 3.0% |
| Dividend Yield | 2.2% | | 0.8% | -1.2% | -0.3% | 3.0% | 3.1% | 0.5% | 4.3% | 1.1% |
| Book to Price Ratio | -0.5% | | -1.1% | -5.5% | 7.9% | 2.7% | 4.0% | -1.6% | -2.3% | 0.6% |
| Sales to Price Ratio | 1.4% | | -1.0% | -6.0% | 3.1% | 4.7% | 1.5% | -0.4% | -0.1% | 2.0% |
| EBITDA / EV | 2.7% | | -4.1% | 3.9% | -0.2% | 7.9% | 1.9% | -2.9% | 0.2% | 3.9% |
| Sales / EV | 1.5% | | 1.2% | -6.7% | 2.1% | 3.3% | 1.7% | -1.9% | 0.9% | 1.6% |
| Growth | -1.8% | -1.5% | -1.0% | -4.8% | 2.3% | -4.3% | -3.9% | 0.0% | -6.2% | -1.2% |
| Earnings Growth (12 month forward) | -0.3% | | -2.2% | 2.7% | -1.7% | -3.1% | -0.4% | -0.1% | 2.9% | -1.3% |
| SB Growth-Value Score | -1.9% | | -3.7% | -12.9% | 1.2% | -4.0% | 0.1% | -1.2% | -3.0% | -1.8% |
| One Year Sales Growth | -1.1% | | 3.7% | -11.6% | -0.8% | -2.3% | -3.1% | 2.0% | -1.4% | -1.8% |
| Long Term Earnings Growth | 0.6% | | 1.3% | -3.8% | 5.7% | -2.2% | -5.4% | 2.6% | -1.7% | 0.3% |
| One Year EPS Growth | -0.5% | | -5.6% | -3.3% | 2.6% | -1.1% | -3.0% | -1.1% | 2.9% | -0.9% |
| Low Risk | 3.8% | 2.1% | 1.6% | 10.4% | -1.0% | 6.8% | -0.2% | 2.0% | 6.9% | 3.8% |
| Debt to Equity (Inverted) | -0.0% | | 2.1% | -2.4% | -2.9% | 3.5% | -1.5% | 1.1% | -2.2% | -0.5% |
| Earnings Stability | 1.2% | | -0.0% | 14.0% | 2.1% | 0.7% | 0.6% | -0.3% | 5.3% | 0.5% |
| Beta against MSCI AC World | 4.5% | | 5.9% | 10.6% | -2.2% | 7.0% | 3.0% | 4.9% | 10.0% | 3.5% |
| Beta against MSCI Country Index | 3.3% | | 4.2% | 11.5% | -2.5% | 8.3% | -0.7% | 4.7% | -1.5% | 3.4% |
| Size (Market Cap) | -0.1% | -0.1% | 7.3% | 8.9% | -3.6% | 0.6% | -4.8% | 4.6% | -5.8% | 0.1% |
| Quality | 0.9% | 0.1% | 0.3% | 4.7% | -4.1% | 2.8% | 3.2% | 1.3% | 2.5% | 0.2% |
| Earnings Certainty | -0.0% | | 2.3% | -0.9% | -3.2% | -0.3% | -2.5% | 1.9% | 2.4% | -0.1% |
| Return on Equity | 0.6% | | 1.4% | 7.3% | -7.5% | -0.8% | -0.2% | 1.2% | 0.6% | 0.3% |
| Net Profit Margin on Sales | 0.5% | | 2.3% | 11.5% | -1.0% | -4.2% | 0.3% | 0.5% | 2.5% | -0.1% |
| Margin Growth | -0.2% | | -4.6% | 10.0% | -0.9% | 2.1% | -0.0% | -4.0% | 1.4% | 0.6% |
| Earnings Quality (Accruals) (Inverted) | 0.6% | | -1.1% | -9.6% | -0.8% | 2.2% | 0.1% | -0.4% | 1.2% | -0.4% |
| Balance Sheet Quality (NOA) (Inverted) | 1.3% | | 1.5% | -9.6% | -1.9% | 3.8% | 5.0% | 1.7% | 5.7% | 1.0% |
| Price Momentum | -1.5% | -0.9% | 1.9% | 9.3% | 3.3% | -2.9% | -5.5% | 1.5% | -4.6% | -1.9% |
| 3 months | 2.3% | | 9.7% | 2.0% | -1.4% | -3.2% | -2.4% | 5.0% | 1.9% | 2.0% |
| 12 months | -2.9% | | -3.1% | 12.1% | 3.5% | -3.5% | -6.5% | -1.4% | -5.4% | -3.1% |
| First 11 months | -3.5% | | -4.1% | 9.4% | 2.6% | -2.3% | -6.4% | -1.7% | -5.3% | -3.1% |
| Estimates Momentum | 0.1% | 0.6% | 4.2% | 3.2% | 2.5% | -2.4% | -3.4% | 3.8% | 0.0% | 0.0% |
| 1 Month Change in Earnings Forecast | -1.1% | | 2.8% | -1.3% | 3.9% | -4.3% | -6.8% | 0.9% | -5.7% | -1.3% |
| Earnings Revision | -0.1% | | 4.3% | 8.7% | 1.4% | -2.6% | -4.6% | 2.7% | -3.0% | -0.5% |
| Sales Revisions | -0.4% | | 1.0% | -10.7% | 1.8% | -1.9% | -4.5% | 2.8% | -0.9% | -0.9% |
| Cash Revisions | 1.5% | | 1.4% | -4.8% | 0.1% | -3.1% | -0.9% | 2.9% | 1.5% | 1.1% |

Source: Citi Research, IBES, Worldscope and MSCI

Note: That Quantile performance refers to the spread of returns between the top and bottom quintile of styles, while the Pure performance refers to style performance where others sources of risk exposure such as Country, Sector and other style exposure have been removed. Baskets with less than 5 stocks have been removed. See appendix for more information.

Emerging Markets: YTD Leaders and Laggards

Figure 204. Performance Spread Between High (Top 20%) and Low (Bottom 20%), and Pure Factor Portfolios, YTD

| | Quantile Perf. | Pure Perf. | Brazil | Russia | India | China | South Africa | Latin America | Emerging Europe | Emerging Asia |
|--|----------------|--------------|--------------|---------------|---------------|--------------|---------------|---------------|-----------------|---------------|
| Valuation | -1.9% | 1.3% | -3.5% | -0.9% | 8.6% | -5.7% | 22.7% | -0.4% | 2.6% | -3.9% |
| Earnings Yield - 12 month forward | -1.5% | | 4.4% | -5.8% | 10.9% | -6.6% | 13.8% | 6.9% | -5.7% | -2.9% |
| Earnings Yield- 12 month historical | -2.1% | | -4.3% | -3.7% | 4.9% | -5.5% | 10.5% | 3.5% | -7.5% | -3.6% |
| Cash Flow To Price | -1.2% | | -4.9% | -9.4% | 7.9% | -7.4% | 11.4% | -3.0% | 2.1% | -1.9% |
| Dividend Yield | 1.0% | | 0.5% | 8.3% | 12.2% | -1.5% | 8.2% | 1.7% | -0.1% | -0.6% |
| Book to Price Ratio | -3.2% | | -3.5% | 4.6% | 7.7% | -2.0% | 17.2% | -0.4% | -0.8% | -4.9% |
| Sales to Price Ratio | -3.4% | | -11.0% | -5.5% | 11.1% | -4.4% | 15.8% | -5.5% | 3.5% | -4.2% |
| EBITDA / EV | -0.3% | | -2.4% | 5.6% | 4.6% | -5.0% | 7.8% | -1.1% | 0.8% | 0.5% |
| Sales / EV | -2.4% | | 1.3% | -6.2% | 8.4% | -4.6% | 7.3% | -5.8% | 4.6% | -5.3% |
| Growth | -1.1% | -0.7% | 6.7% | -9.2% | -3.2% | -3.0% | -6.0% | 5.4% | -10.4% | -0.4% |
| Earnings Growth (12 month forward) | -0.9% | | -1.8% | -1.0% | -3.0% | -4.5% | 1.6% | -2.2% | 2.4% | -0.3% |
| SB Growth-Value Score | -3.0% | | -1.5% | -16.4% | -5.4% | -1.5% | -4.3% | -0.5% | -7.0% | -2.6% |
| One Year Sales Growth | 1.3% | | 21.0% | -14.2% | -5.6% | -10.5% | -4.5% | 7.7% | -1.3% | 0.3% |
| Long Term Earnings Growth | 4.8% | | 13.4% | -11.2% | -1.9% | -1.1% | -8.0% | 3.7% | -5.3% | 5.2% |
| One Year EPS Growth | 3.4% | | 3.8% | -13.1% | 1.4% | -3.8% | -9.0% | 7.1% | 2.9% | 2.2% |
| Low Risk | 5.9% | 2.4% | 9.4% | 12.9% | -9.6% | 4.4% | 5.3% | 6.2% | 13.2% | 4.8% |
| Debt to Equity (Inverted) | 0.5% | | 12.3% | 9.1% | -7.5% | -3.2% | 0.2% | 6.9% | -0.9% | -1.3% |
| Earnings Stability | 2.8% | | -1.7% | 0.2% | -7.6% | 0.4% | -2.8% | 0.7% | 2.3% | 4.3% |
| Beta against MSCI AC World | 6.1% | | 15.8% | 20.9% | -6.3% | 1.9% | 9.0% | 6.7% | 11.7% | 3.2% |
| Beta against MSCI Country Index | 5.1% | | 13.6% | 21.6% | -12.3% | 8.9% | 2.0% | 10.0% | 1.8% | 3.3% |
| Size (Market Cap) | -3.3% | 0.0% | 0.9% | 2.0% | -5.0% | 7.7% | -7.4% | 0.2% | -15.2% | -0.5% |
| Quality | 3.5% | 1.0% | 7.4% | 6.9% | -6.9% | -0.9% | -4.4% | 5.4% | 4.4% | 2.8% |
| Earnings Certainty | 1.7% | | 13.6% | -2.8% | -8.8% | -6.8% | -12.0% | 3.7% | 0.2% | 1.7% |
| Return on Equity | 4.8% | | 7.7% | 6.6% | -6.0% | -4.9% | -8.0% | 6.6% | -5.4% | 5.8% |
| Net Profit Margin on Sales | 3.2% | | 3.6% | 6.8% | -1.9% | -2.5% | -14.1% | 6.1% | -3.2% | 4.7% |
| Margin Growth | 0.1% | | -18.0% | 2.1% | -8.6% | 6.5% | -5.5% | -10.1% | 4.9% | 1.8% |
| Earnings Quality (Accruals) (Inverted) | 2.3% | | -1.5% | -8.4% | 4.9% | 2.1% | 2.0% | 1.5% | -0.5% | 0.3% |
| Balance Sheet Quality (NOA) (Inverted) | 4.4% | | 2.8% | -5.5% | 3.5% | 0.9% | 2.9% | 1.4% | 8.8% | 5.0% |
| Price Momentum | -5.7% | -2.7% | -6.4% | 4.8% | -20.7% | 7.2% | -18.0% | -5.1% | -9.3% | -6.0% |
| 3 months | -6.2% | | -2.1% | 2.4% | -27.4% | 0.0% | -18.1% | -6.6% | -12.1% | -4.2% |
| 12 months | -4.8% | | -4.5% | 4.9% | -13.8% | 9.0% | -16.5% | -4.2% | -8.5% | -4.1% |
| First 11 months | -3.8% | | -8.6% | -1.3% | -16.0% | 11.2% | -13.6% | -3.0% | -6.5% | -3.9% |
| Estimates Momentum | -2.7% | -1.8% | 0.9% | -14.3% | -9.5% | 1.6% | -11.6% | 6.3% | -5.6% | -5.1% |
| 1 Month Change in Earnings Forecast | -4.1% | | 0.5% | -9.2% | -19.0% | -2.0% | -24.0% | 2.6% | -13.4% | -5.3% |
| Earnings Revision | -2.1% | | 0.9% | -2.3% | -11.3% | 1.1% | -16.3% | 6.9% | -5.4% | -6.3% |
| Sales Revisions | -1.6% | | 5.7% | -11.3% | -16.9% | 3.9% | -8.6% | 3.7% | 3.2% | -4.2% |
| Cash Revisions | -1.4% | | -6.6% | -10.5% | -10.7% | 5.5% | -14.4% | -4.4% | -3.3% | -1.3% |

Source: Citi Research, IBES, Worldscope and MSCI

Note: That Quantile performance refers to the spread of returns between the top and bottom quintile of styles, while the Pure performance refers to style performance where others sources of risk exposure such as Country, Sector and other style exposure have been removed. Baskets with less than 5 stocks have been removed. See appendix for more information.

Emerging Markets: Macro Factor Sensitivities⁹

Figure 205. GDP Weighted Global Bond Yield (G10)

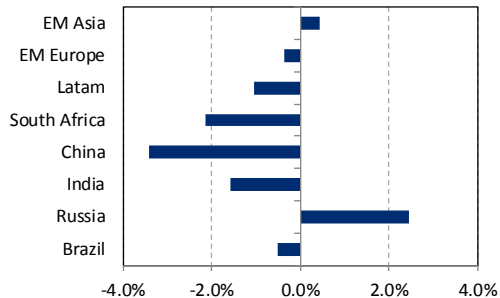


Figure 206. Oil

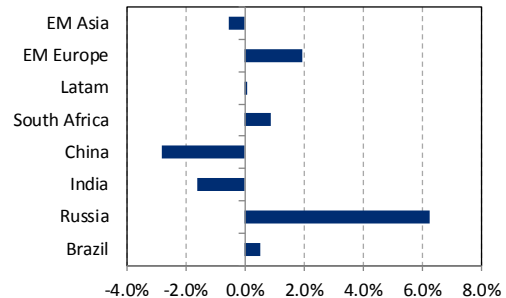


Figure 207. Commodities (GSCI)

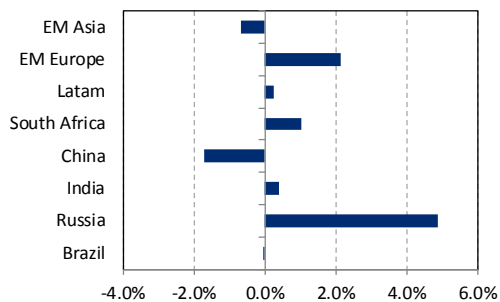


Figure 208. EUR per USD

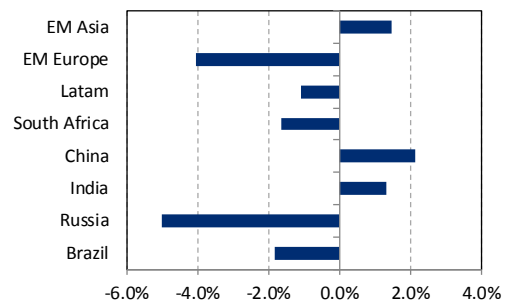


Figure 209. YEN per USD

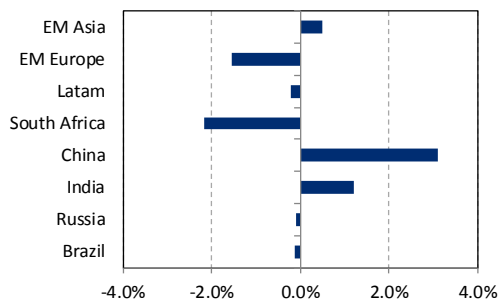


Figure 210. Emerging Market Sovereign Bond Yield

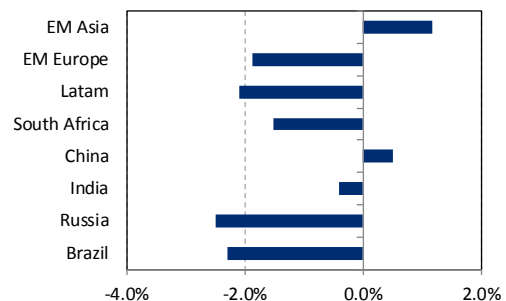


Figure 211. Credit Spreads

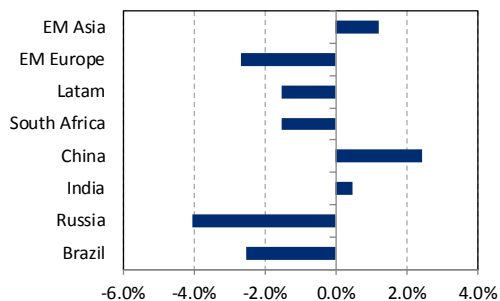
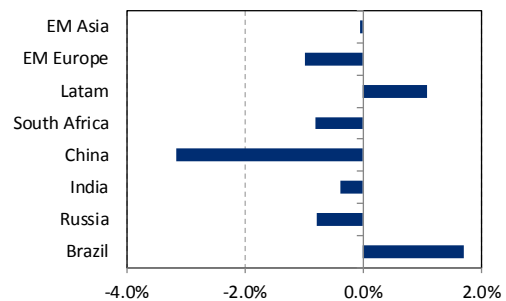


Figure 212. Market (MSCI AC World)



Source: Citi Research, MSCI

⁹ The above charts illustrate predicted *relative returns* from our proprietary risk model (Global RAM) for a one standard deviation change in the underlying macroeconomic factor.

Emerging Markets: Style Country Composition

Figure 213. Estimates Momentum

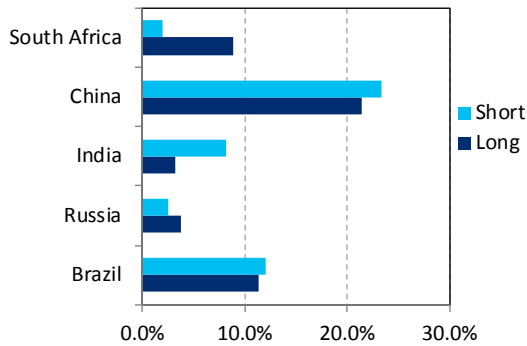


Figure 214. Growth

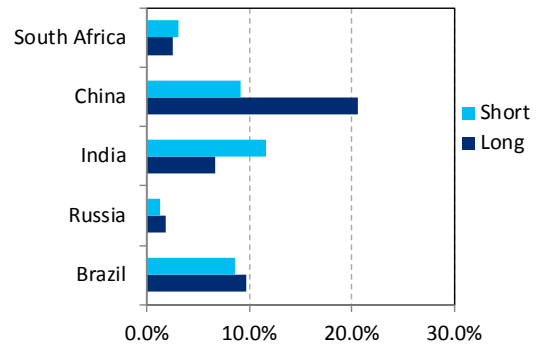


Figure 215. Value

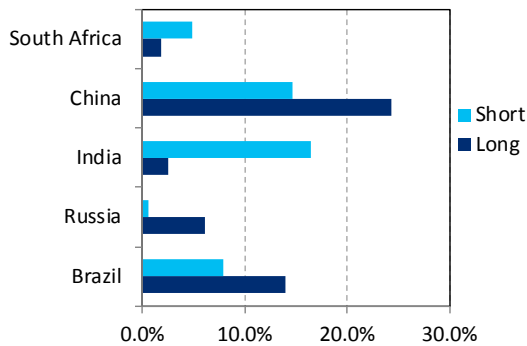


Figure 216. Low Risk

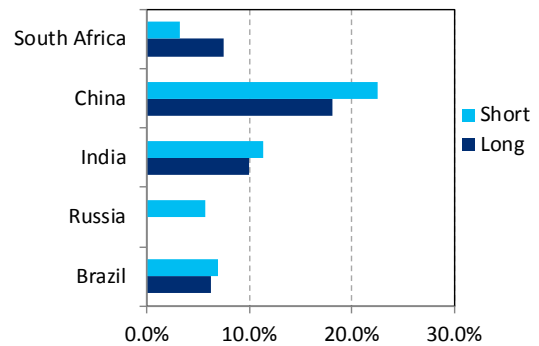


Figure 217. Size

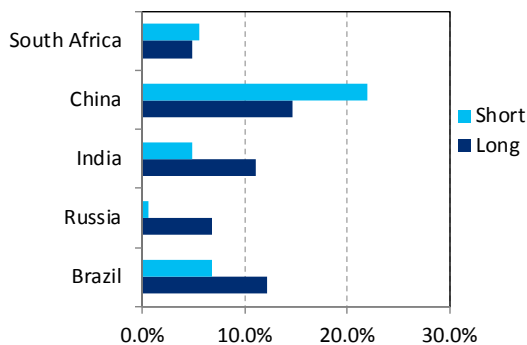


Figure 218. Price Momentum

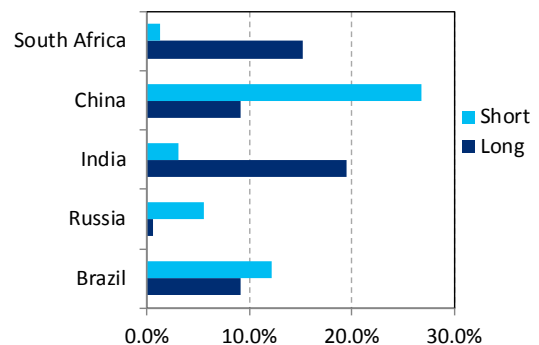
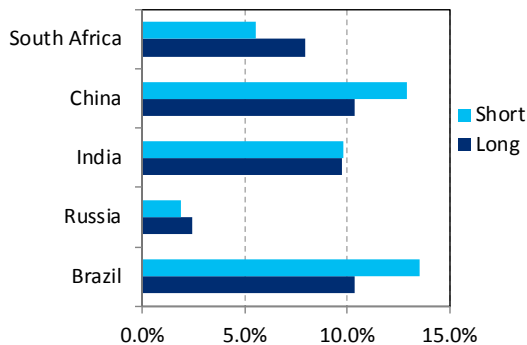


Figure 219. Quality



Style composition is defined as the proportion of each of the long and short style portfolios coming from the relevant regions, country or sector.

Source: Citi Research, MSCI, IBES, Worldscope, DataStream

Emerging Markets: Relative Style Valuations

Figure 220. Estimates Momentum

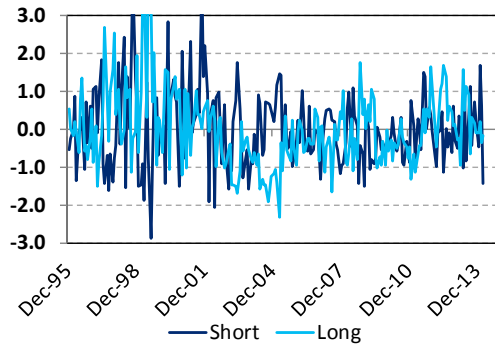


Figure 221. Growth

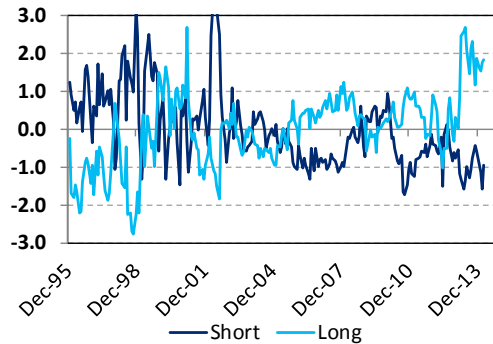


Figure 222. Value

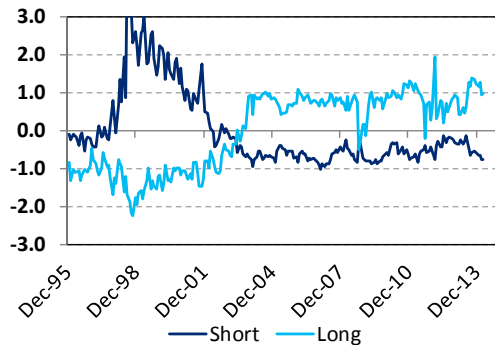


Figure 223. Low Risk

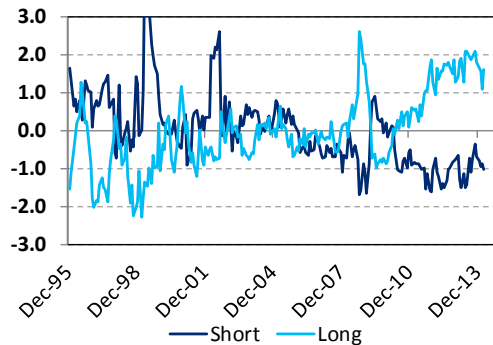


Figure 224. Size

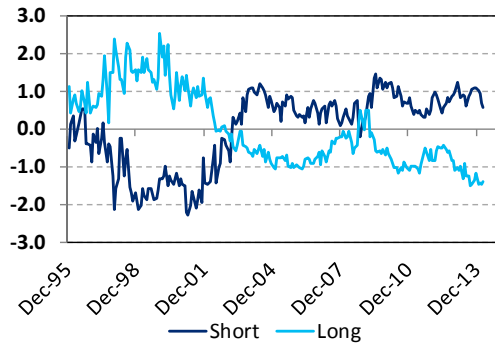


Figure 225. Price Momentum

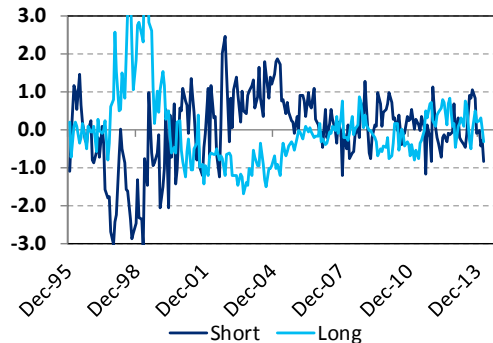
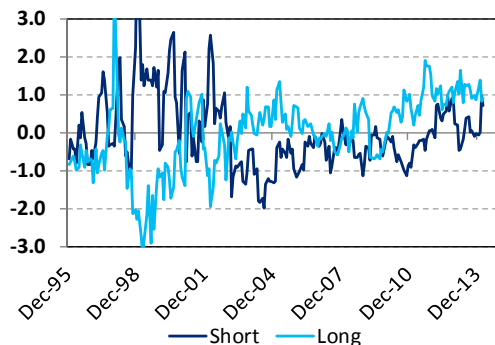


Figure 226. Quality



Relative style valuations calculated using median 12 month forward P/E of the respective long and short style quintiles relative to the benchmark median.

The charts show Z-scored time series for both the long and short relevant valuations. Axes are intentionally capped at $\pm 3\sigma$.

Appendix: Interactive Tool

In response to client needs, we have developed an interactive style backtesting product to complement this publication. The tool comes in the form of an excel add-in that clients can easily install on their desktop. The tool offers:

- Access to over 10,000 univariate backtests covering 50 factors and 16 broad investing universes.
- Flexibility in deciding which time period to use to calculate style returns (earliest start date is January 1995).
- Returns are total return based and are available in various currencies.
- Ability to look at the analysis in a number of methods — Simple Returns, Annualised Returns, Information Ratios, Hit Rates and Factor Correlations.
- Individual factor in depth analysis.
- Downloadable factor return series in a user-defined manner.
- Analysis down to sector level.

Please contact the European Quantitative Research team (gqrlondon@citi.com) if you wish to receive this tool.

Figure 227. Citi Quant Style Add-in

| | MSCI World | MSCI Europe | MSCI North America | MSCI United States | MSCI Europe ex UK | MSCI United Kingdom | MSCI Nordie | MSCI Japan | MSCI Pacific | MSCI ex Japan |
|--|------------|-------------|--------------------|--------------------|-------------------|---------------------|-------------|------------|--------------|---------------|
| Valuation | | | | | | | | | | |
| Earnings Yield - 12 month forward | 11.84 | 5.06 | 16.91 | 5.46 | 4.28 | -1.52 | 4.53 | -10.95 | -1.51 | 9.22 |
| Earnings Yield - 12 month historical | 13.07 | 8.04 | 17.62 | 7.00 | 6.55 | 2.06 | 8.86 | -8.32 | 6.07 | 7.32 |
| Cash Flow To Price | 9.16 | 6.39 | 8.12 | 9.92 | 9.25 | 4.13 | 5.37 | 4.27 | 4.90 | 17.46 |
| Dividend Yield | 16.63 | 11.76 | 20.20 | 7.75 | 10.80 | 8.24 | 5.77 | 6.08 | 11.78 | 15.32 |
| Book to Price Ratio | 4.94 | 8.53 | 1.95 | 8.74 | 9.09 | 6.16 | 7.24 | 6.25 | 8.86 | 16.39 |
| Sales to Price Ratio | 9.22 | 16.89 | 6.22 | 11.95 | 12.47 | 15.15 | 15.79 | 12.51 | 20.63 | 2.64 |
| EBITDA / EV | 16.56 | 14.74 | 17.36 | 9.39 | 10.82 | 10.20 | 9.44 | 13.35 | 18.24 | 20.47 |
| Sales / EV | 9.10 | 14.36 | 3.08 | 10.67 | 12.28 | 10.86 | 11.56 | 10.89 | 12.53 | 4.79 |
| Growth | | | | | | | | | | |
| Earnings Growth (12 month forward) | -7.60 | -8.73 | -7.76 | -5.11 | -5.86 | -8.72 | -3.58 | -7.39 | -10.45 | -4.87 |
| SB Growth-Value Score | -6.71 | -5.67 | -4.61 | -10.30 | -10.55 | -4.83 | -1.93 | -14.36 | -3.89 | -10.28 |
| One Year Sales Growth | -7.82 | -12.36 | -4.40 | -10.73 | -14.40 | -9.32 | -7.37 | -16.53 | -4.62 | -8.62 |
| Long Term Earnings Growth | -13.76 | -5.06 | -18.97 | -6.27 | -5.26 | 1.57 | 1.85 | -4.52 | -3.70 | -5.16 |
| One Year EPS Growth | -1.92 | -1.63 | -1.04 | -6.98 | -7.80 | -3.55 | -0.02 | -14.57 | 2.49 | 6.80 |
| One Year DPS Growth | -1.71 | -1.81 | -2.31 | -2.52 | -3.44 | -0.34 | -0.75 | -7.01 | -3.59 | 0.87 |
| GARP | | | | | | | | | | |
| Growth Composite | -7.87 | -7.87 | -7.37 | -9.84 | -12.82 | -8.13 | -5.22 | -18.91 | -10.21 | -3.25 |
| Deviation from Fair P/E | 2.37 | 1.77 | 1.96 | 3.18 | 5.03 | 0.97 | 2.97 | -7.23 | -2.06 | 7.14 |
| Deviation from Fair P/B | 4.86 | 3.42 | 4.96 | 6.56 | 6.21 | 0.45 | 2.58 | -7.82 | -0.62 | 12.78 |
| Deviation from Fair P/S | 6.96 | 8.12 | 5.98 | 8.01 | 9.67 | 8.81 | 8.86 | 11.95 | 3.37 | 3.24 |
| Deviation from Fair P/CF | 6.51 | 4.84 | 6.01 | 7.68 | 7.44 | 6.50 | 6.28 | 5.97 | -0.89 | 15.64 |
| PES (Inverted) | -2.10 | -4.54 | -2.93 | -1.01 | -2.57 | -5.47 | -4.15 | -14.92 | -8.21 | 0.12 |
| Low Risk | | | | | | | | | | |
| GARP Composite | 3.40 | 1.67 | 2.39 | 4.75 | 4.52 | -1.03 | 1.25 | -7.69 | -2.69 | 10.42 |
| Debt to Equity (Inverted) | -7.20 | -7.54 | -6.82 | -7.45 | -7.49 | -6.46 | -6.43 | -9.41 | -6.20 | 3.90 |
| Earnings Stability | -4.34 | -8.58 | 0.39 | -5.51 | -5.69 | -3.65 | -5.01 | -3.06 | -11.46 | -0.42 |
| Beta against MSCI AC World (Low-High) | -2.71 | 1.48 | -5.99 | 2.47 | 3.54 | 9.71 | 10.20 | 6.98 | 13.56 | 8.91 |
| Beta against MSCI Country Index (Low-High) | 6.75 | 5.81 | 9.85 | 3.42 | 4.78 | 11.89 | 11.80 | 5.58 | 13.77 | 6.90 |

Source: Citi Research

Appendix – European Style Rotation Model

Figure 228. Citi Tactical European Style View

| | April | March | February |
|-------------------------------|-------|-------|----------|
| Book Yield | + | - | - |
| Forward Earnings Yield | + | + | + |
| Earnings Growth | - | - | - |
| Earnings Revisions | + | + | + |
| ROE (Quality) | - | + | - |
| Price Momentum | + | + | + |
| Earnings Stability (Low Risk) | + | - | - |

Source: Citi Research

Appendix: Construction Style Indices and Calculation of Style Performance

The first step involves the identification of the most important systematic drivers of risk and return across global markets over the long term. Using results from the extensive style performance research published by the Citi Global Quantitative Research team together with empirics documented within the Academic literature we arrive at the following styles: Size, Value, Growth, Low Risk, Quality, Price Momentum and Estimates Momentum.

For each style factor, we then select a list of descriptors that best represent that specific attribute. For example we use a range of defensive and cyclical price based ratios to describe the Value attribute. These descriptors are then combined to arrive at a style factor loading for each stock in a given MSCI universe.

Style Descriptors

The basis for our style classification and choice of style descriptors comes from the Citi Style Addin Software¹⁰. Stock universes are based on MSCI indices and we have a complete history of styles/factors back to 1995. Figure 2 lists the styles that we cover together with the descriptors used in the construction of each index. One notable absence from our style classification is GARP. We chose not to include this style because as a distinct style, this could be constructed from combining Value and Growth.

Figure 229. Style Factors and Descriptors

| Style Index | Descriptors | |
|----------------|--|--|
| Size | Market Capitalisation (log) | |
| Value | Earnings Yield (12 month forward) | Earnings Yield (12 month historical) |
| | Cash Flow To Price | Dividend Yield |
| | Book to Price Ratio | Sales to Price Ratio |
| | EBITDA / EV | Sales / EV |
| Growth | Earnings Growth (12 month forward) | S&P Growth-Value Score |
| | One Year Sales Growth | Long Term Earnings Growth |
| | One Year EPS Growth | One Year DPS Growth |
| Low Risk | Debt to Equity (Inverted) | Earnings Stability |
| | Beta against MSCI AC World (Low-High) | Beta against MSCI Country Index (Low-High) |
| Quality | Earnings Certainty | Return on Equity |
| | Net Profit Margin on Sales | Margin Growth |
| | Earnings Quality (Accruals) (Inverted) | Balance Sheet Quality (NOA) (Inverted) |
| Price Momentum | 3 Month Volatility Adjusted Price Trend | 12 Month Volatility Adjusted Price Trend |
| | First 11 Month Volatility Adjusted Price Trend | |
| Estimates | 1 Month Change in Earnings Forecast | Earnings Revision |
| | Sales Revisions | Cash Revisions |

Source: Citi Research

When we building our style factor loading we start by winzorising the descriptor data to eliminate outliers. After this we normalise this data and combine together on an equal weighted basis to form the style composite factor.

¹⁰ For more information on the Citi Style Addin please see Appendix of the this document. Or alternatively to down the addin go to the [Citi Velocity](#) web page.

Calculation of Raw Style Performance

We calculate raw style performance using the standard factor mimicking approach. In each universe stock are ranked using each composite

Construction of Pure Style Indices

Using the same style data that

For a point in time, given the style factor loadings, country/sector membership dummies and our desired orthogonal style exposures, we then employ a simple matrix inversion to compute a set of orthogonal style factor portfolios. The last step involves a simple linear combination of the monthly style factor portfolios with the next-period returns of each constituent stock measured over a monthly or daily periodicity to generate an index of style returns. The result is that each index has a unit exposure to any one style and zero exposure to all other styles, at the time of the monthly rebalance.

Calculating the Style Betas

In order to calculate the betas we are effectively constructing the style portfolios. Following this, the style portfolio exposures are function of the style loadings and their corresponding betas. In matrix notation (simplified version):

$$Y = B'F$$

Where (the equation above is contemporaneous, hence ignoring the time subscript):

Y = matrix (m,m) factor portfolio exposures;

B = matrix (n,m) of style portfolio weights (betas);

F = matrix (n,m) stock exposures to style/country/sectors;

n = number of stocks;

m = number of styles, country and sectors.

Given our desire for set of linearly independent style portfolios, Y can take the form of an identity matrix, F is our style factor loadings so we are therefore solving for B .

$$B = \left((F'F)^{-1} F' \right) Y$$

The result of B is a set of stock level weights (or betas) for each style that multiplied with the style factor loadings produces orthogonal style exposures¹¹. Or in other words, each style portfolio has a unit exposure to itself and zero exposure to all other styles.

¹¹ We also constrain the weighted sum of the sectors to be zero.

Construction of Style Return Indices

As part of the construction of the style portfolio exposures, at a point in time, we are left with a set of style portfolios and their corresponding long-short stock weights. Bringing this part of the style index construction to return space (i.e. the B matrix), we assume that cross-sectional stock returns over any period can be expressed with the following equation:

$$P_t = R_t' B_{t-1}$$

Where:

P_t = a row vector $(1, m)$ of pure style portfolio returns from time $t-1$ to time t

R_t = a column vector $(n, 1)$ of stock returns from time $t-1$ to t

B_{t-1} = matrix (n, m) of style portfolio weights formed at time $t-1$

Given we know R_t and we have calculated B_{t-1} , the product of these two matrices is P_t , the return of each pure systematic factor (in total, m) at time t .

Appendix: Style Definitions

Most of the style descriptors we use are self-explanatory. Data is primarily sourced from either Worldscope or Thomson IBES. However there are some style descriptors that warrant further explanation:

- **S&P Global BMI Growth-Value Score** — this is a score between 0 (pure value) and 1 (pure growth) is assigned to each stock and is calculated by S&P. For more information on the methodology that is employed to calculate the score, please see the S&P [website](#) and click on the “Methodology” section.
- **Earnings Stability** — calculated as the R-squared from a regression of five annual EPS values (three historical and two forecast) against a time trend. (For more details, see our report *Searching for Alpha: Focus on Earnings Stability*, Citi Research, February 2003.
- **Price Momentum** — for each respective daily time period, price momentum is calculated as the t-statistic of the slope coefficient, derived from a regression of the log of daily prices (in local currency) on a time trend.
- **Earnings, Sales, Cash Revisions** — this is the time-weighted average of analyst upgrades less downgrades scaled by the total number of estimates for fiscal years 1 and 2.
- **Earnings Certainty** — measured as the inverse of the coefficient of variation in the next 12-month EPS estimates (stocks are excluded if there are less than five estimates or EPS is less than one cent). This is the same as the inverse of our EPS dispersion measure and more detail can be found in *Searching for Alpha: Sell When Analysts Disagree*, Citi Research, December 2003.
- **Earnings Quality** — calculated as the year-on-year change in net operating assets or the difference between accounting and cash earnings (accruals). For more details, see our reports. [Searching for Alpha - Accruals Volatility – A New Approach to Quality Investing](#), *Searching for Alpha: Quantifying Earnings Quality*, Citi Research, October 2004.
- **Balance Sheet Quality** — this is the level of net operating assets. NOA incorporates all the changes in NOA and can be used as proxy for cumulated accruals. Since accumulation of earnings without cash flow is unsustainable in the long term, having high net operating assets is a sign of balance sheet bloat. For more details, *Searching for Alpha: Quantifying Earnings Quality*, European Quantitative Strategy, October 2004.

Global Quantitative Teams

Figure 230. Citi Quantitative Teams

For Informational Purposes Only

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Appendix A-1

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Rahul Jalan owns positions in exchange traded commodities.

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