1. Global volatility hotspots

- Greater than 1% rise over last week
- Greater than -1% fall over last week

2. Global correlation hotspots

- Greater than 2% rise over last week
- Greater than -2% fall over last week

3. Global market returns (6 months)

4. Global market returns (1 week)

5. Global Market Risk and Return

- Developed markets
- Emerging markets

Risk vs Return chart showing developed and emerging markets.
6. FTSE Japan predicted risk

MH
mh-s
SH
sh-s
FTSE Japan return

Dec Jan Feb Mar Apr

7. Rolling average asset correlations

60 Day 20 Day FTSE Japan return

Dec Jan Feb Mar Apr

8. Weekly asset return dispersion

05-Dec 09-Jan 06-Feb 05-Mar 02-Apr 30-Apr

9. Weekly asset return proportion up/down

05-Dec 09-Jan 06-Feb 05-Mar 02-Apr 30-Apr

10. Risk Watch – FTSE Japan

Return

-0.2 -0.1 0.0 0.1 0.2

-0.2 -0.1 0.0 0.1 0.2

-0.2 -0.1 0.0 0.1 0.2

-0.2 -0.1 0.0 0.1 0.2

11. Risk change decomposition

Factor level Initial risk 31.97 31.61 31.61 31.61 31.61
Portfolio composition 0.06 0.22 0.18 0.06 0.06
Stock characteristics -0.15 0.00 0.04 0.06 0.06
Stock specific volatility 0.00 0.00 0.10 0.06 0.06
Factor volatility -0.29 -0.80 20.99 19.57
Factor correlations 0.11 -0.39 -0.46 19.57
Total change -0.36 -0.68 20.44 18.94
Final risk 31.61 31.61 31.61 31.61
Stock level Initial risk 31.97 31.61 31.61 31.61 31.61
Portfolio composition 0.06 0.22 -0.18 0.06 0.06
Stock volatility -0.04 -0.47 15.82 13.98
Stock correlations -0.39 -0.43 4.80 5.23
Total change -0.36 -0.68 20.44 18.94
Final risk 31.61 31.61 31.61 31.61

12. Components of FTSE Japan risk

Stock specific Industry Market Total

Dec Jan Feb Mar Apr

13. FTSE Japan diversification

Average asset vol Diversification

Dec Jan Feb Mar Apr
### 14. Style factor performance

![Graph showing style factor performance]

### 15. Style factor returns

<table>
<thead>
<tr>
<th>Factor</th>
<th>1w</th>
<th>1m</th>
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<td>-0.74</td>
<td>-1.59</td>
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<td>1.77</td>
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<td>Mkt Sensitivity</td>
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<td>-0.18</td>
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<td>MT Momentum</td>
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<td>-1.71</td>
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<tr>
<td>Profitability</td>
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<td>Value</td>
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<td>Volatility</td>
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<td>XR Sensitivity</td>
<td>0.46</td>
<td>0.90</td>
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<td>3.63</td>
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### 16. Factor volatility range (6 month)

![Graph showing factor volatility range]

### 17. Style correlations

<table>
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<tr>
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<th>Dividend Yield</th>
<th>Earnings Yield</th>
<th>Growth</th>
<th>MT Momentum</th>
<th>Profitability</th>
<th>Value</th>
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<th>Current level</th>
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### 18. Change in style correlations (6 month)

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<th>Growth</th>
<th>MT Momentum</th>
<th>Profitability</th>
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</tbody>
</table>

### Additional Information

- **Dividend Yield**: 0.29
- **Earnings Yield**: 0.37
- **Growth**: -0.05
- **Leverage**: 0.57
- **Liquidity**: 0.34
- **Mkt Sensitivity**: -0.03
- **MT Momentum**: -1.64
- **Profitability**: -0.12
- **Value**: -0.33
- **Volatility**: 0.80
- **XR Sensitivity**: 0.46

**Contact Information**

- **Europe**: +44 (0)20-7856-2424
- **www.axioma.com**
- **Asia**: +852 8203-2790

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- Commercial Serv
- Comm Equip
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- Construction Mat
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- Containers & Pkg
- Distributors
- Consumer Serv
- REITs
- Elec Equip
- Electronic Equip
- Energy
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- Food Beverage
- Food & Staples
- Health Equip
- Health Prov
- Hotels and Rest
- Household Durables
- Household Prod
- Indust Congl
- Insurance
- Internet
- Internet Soft
- IT Services
- Leisure Products
- Life Sciences
- Machinery
- Marine
- Media
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- Pharmaceuticals
- Professional Serv
- Real Estate Gymn
- Road & Rail
- Semiconductors
- Software
- Specialty Retail
- IT Hardware
- Telecom Serv
- Textiles
- Trading Comp
- Transp Infratr
- Utilities
- Market Interct
- Dividend Yield
- Earnings Yield
- Exchange Rate Sensitivity
- Growth
- Leverage
- Liquidity
- Market Sensitivity
- Medium-Term Momentum
- Mkt Sensitivity
- Profitability
- Size
- Value
- Volatility
Explanatory notes

1. Global volatility hotspots
Volatility for global markets measured by the Axioma World short horizon fundamental model based on Axioma model estimation universe (USD perspective).

2. Global correlation hotspots
Average asset correlation for global markets measured using the Axioma World short horizon fundamental model based on Axioma model estimation universe (USD perspective).

3. Global market returns (6 months)
Total market return in local currency over the 6 months based on the Axioma estimation universe.

4. Global market returns (1 week)
Total market return in local currency over the last week based on the Axioma estimation universe.

5. Global market risk and return
Total return over the last 6 months vs current market volatility estimated by Axioma short horizon model, based on the Axioma estimation universe. Circle size represents market cap.

6. FTSE Japan predicted risk
Forecast risk estimate for FTSE Japan measured by the four Axioma Japan model variants. MH = medium horizon, SH = short, -S = statistical model. Right hand axis shows FTSE Japan return.

7. Rolling average asset correlations
Average correlation amongst FTSE Japan stocks over rolling 20 and 60 day window. Right hand axis shows FTSE Japan return.

8. Weekly asset return dispersion
Cross sectional volatility of weekly asset returns over FTSE Japan stocks.

9. Weekly asset return proportion up/down
Weekly count of number of stocks with positive returns vs number of stocks with negative returns for FTSE Japan stocks.

10. Risk watch – FTSE Japan
Change in FTSE Japan risk vs total return over indicated period. Risk is measured by Axioma short horizon Japan model. A one standard deviation move based on risk forecast at the time is indicated by the colored dot.

11. Risk change decomposition
Breakdown of the causes of change in FTSE Japan risk over 1 week, 1 month, 3 months and 6 months. For more details contact your Axioma representative.

12. Components of FTSE Japan risk
FTSE Japan stock specific risk and risk from style and industry, measured daily over the last 6 months using Axioma medium horizon model. Does not include covariance between industry and style.

13. FTSE Japan diversification
Diversification is measured as the ratio of weighted average asset variance to total FTSE Japan variance, measured by the Axioma medium horizon Japan model.

14. Style factor performance
Cumulative performance of the Axioma Japan fundamental model style factors over the last 6 months.

15. Style factor returns
Return of the Axioma Japan fundamental model style factors over the last 1 week, 1 month, 3 months and 6 months.

16. Factor volatility range
The range in volatility for style and industry factors in the Japan medium horizon fundamental model over the last 6 months. Current volatility is indicated by the yellow line.

17. Style correlations
Correlations between style factors from the Japan medium horizon fundamental model

18. Change in style correlations (6 month)
The change in correlation between style factors from the Japan medium horizon fundamental model over the last 6 months.

19. FTSE Japan sector weights and % of risk
The weight and contribution to risk of top level sectors in the FTSE Japan index. Risk is measured using the Axioma medium horizon fundamental model.

20. FTSE Developed sector weights and % of risk
The weight and contribution to risk of top level sectors in the FTSE Developed index. Risk is measured using the Axioma medium horizon fundamental model.

21. FTSE Japan sector style exposures
The weighted average exposure to Axioma Japan style factors for top level sectors in the FTSE Japan index.

22. FTSE Developed sector style exposures
The weighted average exposure to Axioma Japan style factors for top level sectors in the FTSE Developed index.

23. Returns for popular benchmarks
Cumulative returns in local currency over the last 6 months for popular global equity benchmarks as measured by a corresponding ETF. Each of these benchmarks are registered trademarks of their respective providers.

24. Returns for popular indicators
Cumulative returns over the last 6 months for WTI, spot gold and VIX. VIX is a registered trademark of the Chicago Board Options Exchange.

25. FTSE Japan rolling ADV (USD billions)
Daily sum of 20−day average USD daily trading value for assets in FTSE Japan.

26. FTSE Japan ADV by sector
Current and 6 month average 20−day average USD daily trading value for assets in FTSE Japan, split by top level sector.

27. Currency risk and return vs USD
Currency volatility and 6−month return vs USD. Dotted lines show range in return and volatility over the last 6 months.

Country legend
AT=Austria, AU=Australia, BE=Belgium, BR=Brazil, CA=Canada, CH=Switzerland, CL=Chile, CN=China, CO=Colombia, CZ=Czech Republic, DE=Germany, DK=Denmark, ES=Spain, FR=France, GB=United Kingdom, GR=Greece, HK=Hong Kong, HU=Hungary, ID=Indonesia, IE=Ireland, IL=Israel, IN=India, IT=Italy, JP=Japan, KR=Korea, LU=Luxembourg, MA=Morocco, MX=Mexico, MY=Malaysia, NL=Netherlands, NO=Norway, NZ=New Zealand, OM=Oman, PE=Peru, PH=Philippines, PL=Poland, PT=Portugal, RU=Russian Federation, SE=Sweden, SG=Singapore, TH=Thailand, TR=Turkey, TW=Taiwan, US=United States, ZA=South Africa

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