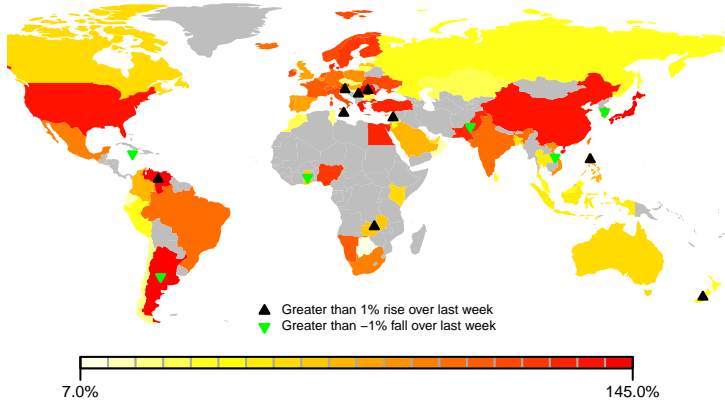
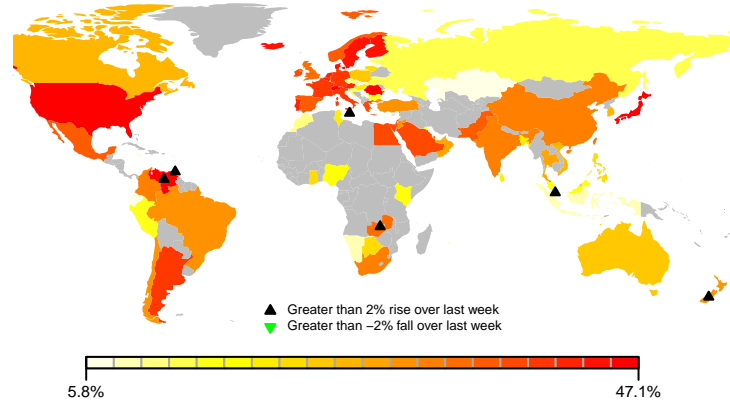


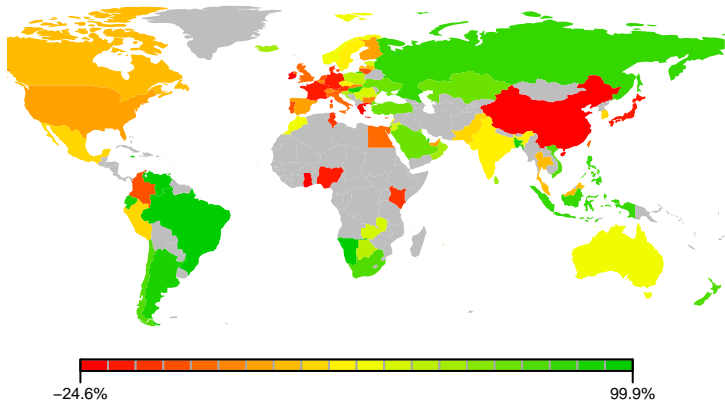
1. Global volatility hotspots



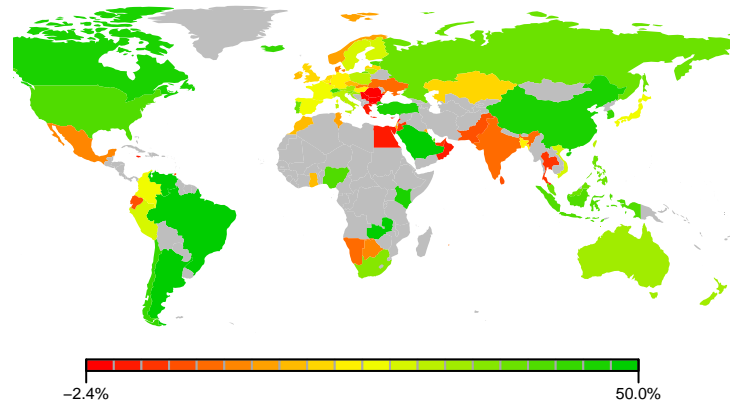
2. Global correlation hotspots



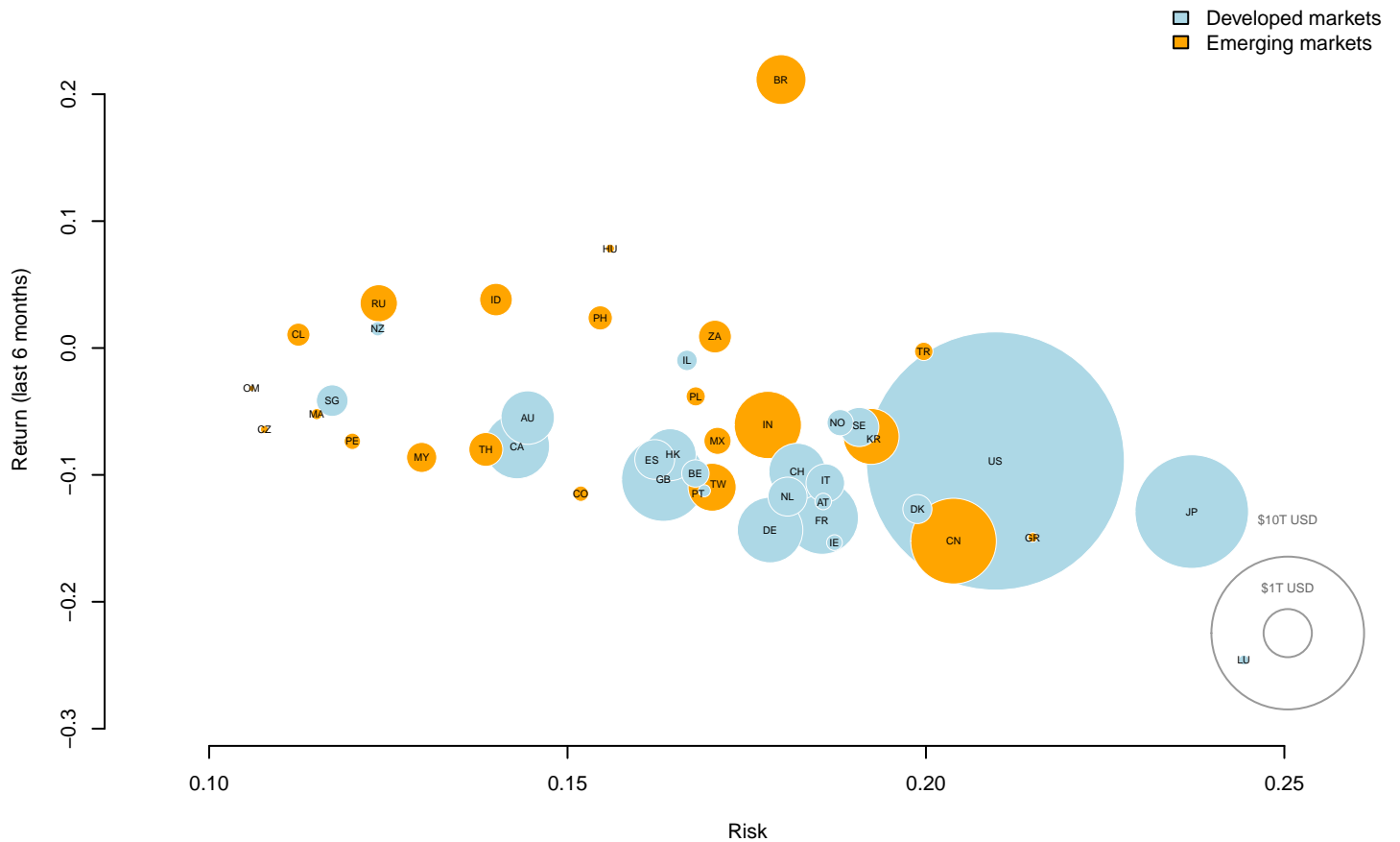
3. Global market returns (6 months)



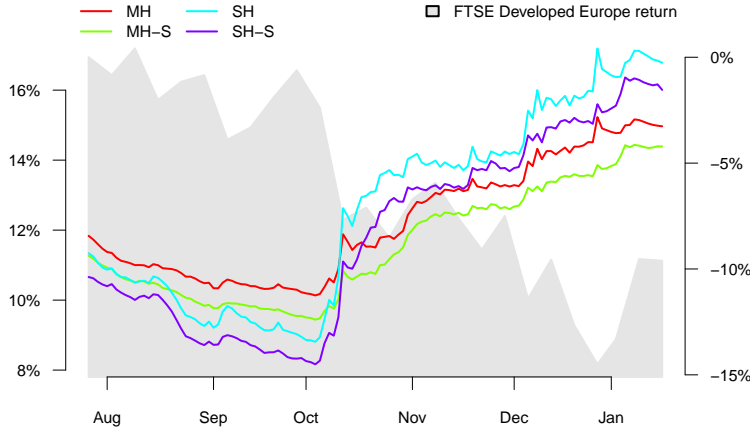
4. Global market returns (1 week)



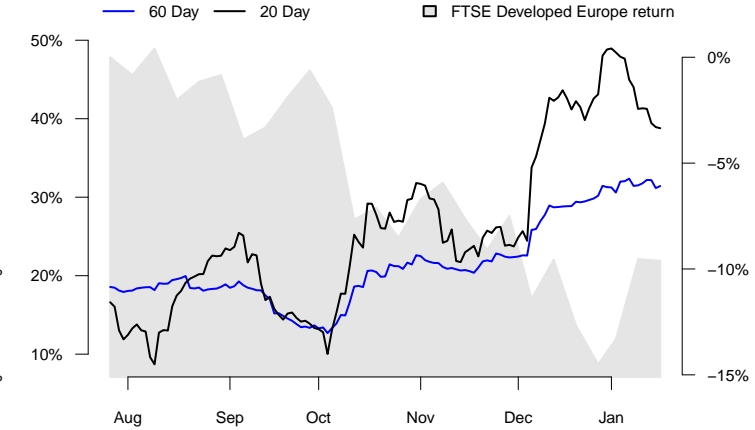
5. Global Market Risk and Return



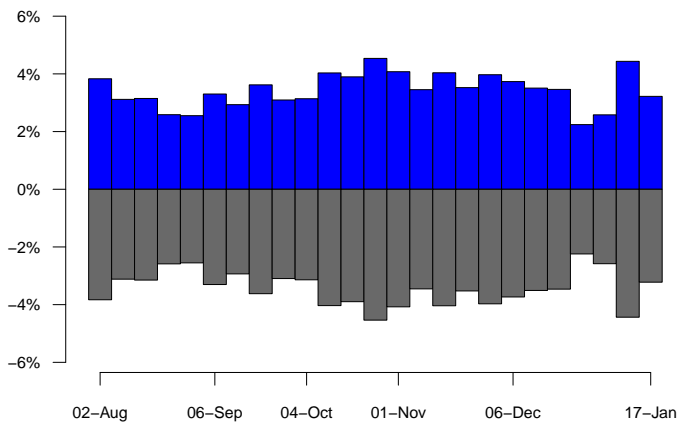
6. FTSE Developed Europe predicted risk



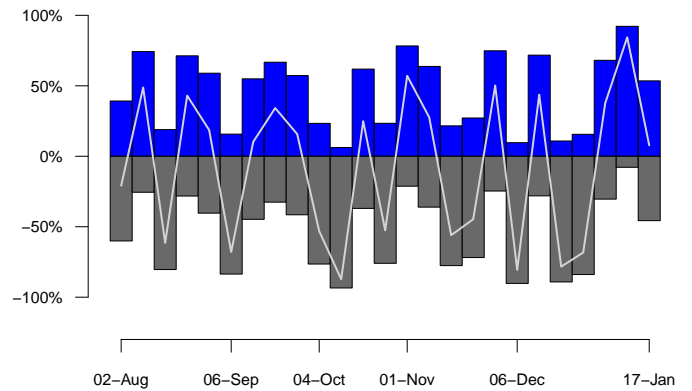
7. Rolling average asset correlations



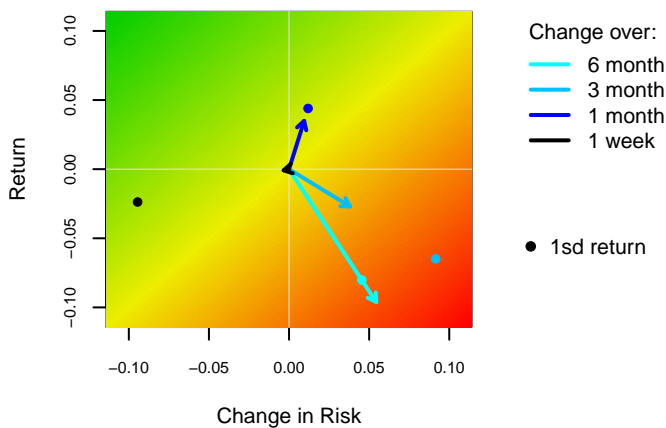
8. Weekly asset return dispersion



9. Weekly asset return proportion up/down



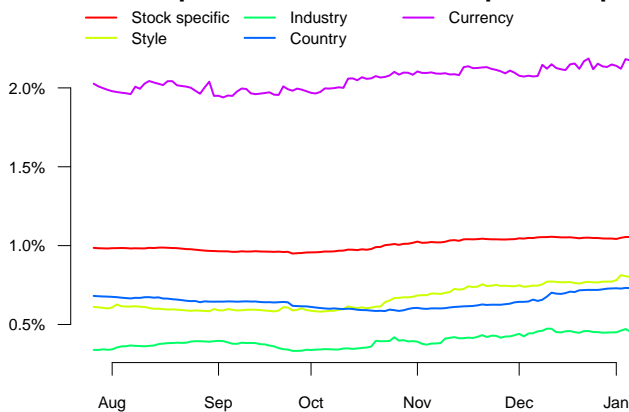
10. Risk Watch – FTSE Developed Europe



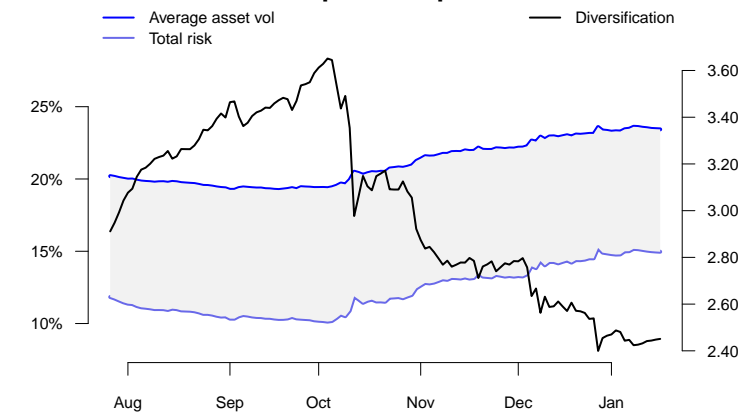
11. Risk change decomposition

	1 week	1 month	3 months	6 months
Factor level				
Initial risk	17.11	15.81	12.99	11.28
Portfolio composition	-0.01	0.07	-0.10	-0.10
Stock characteristics	-0.03	0.03	0.19	0.06
Stock specific volatility	0.00	0.00	0.01	0.01
Factor volatility	-0.31	0.91	3.43	6.02
Factor correlations	0.02	-0.03	0.27	-0.48
Total change	-0.33	0.97	3.80	5.50
Final risk	16.78	16.78	16.78	16.78
Stock level				
Initial risk	17.11	15.81	12.99	11.28
Portfolio composition	-0.01	0.07	-0.10	-0.10
Stock volatility	-0.25	0.15	2.33	3.34
Stock correlations	-0.07	0.76	1.56	2.26
Total change	-0.33	0.97	3.80	5.50
Final risk	16.78	16.78	16.78	16.78

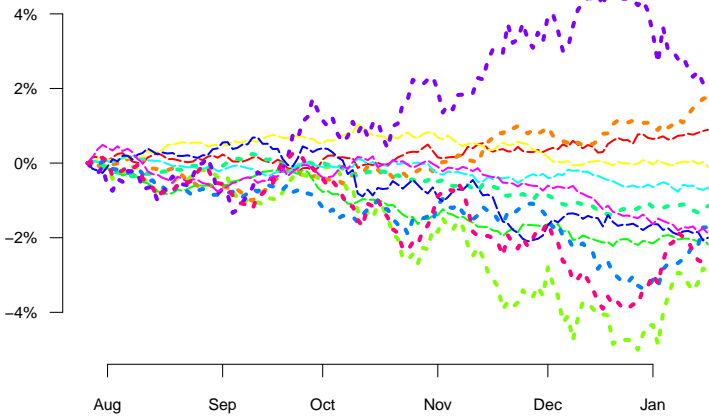
12. Components of FTSE Developed Europe risk



13. FTSE Developed Europe diversification

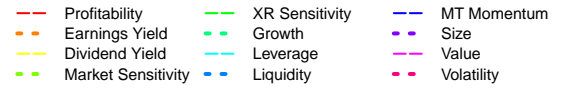


14. Style factor performance

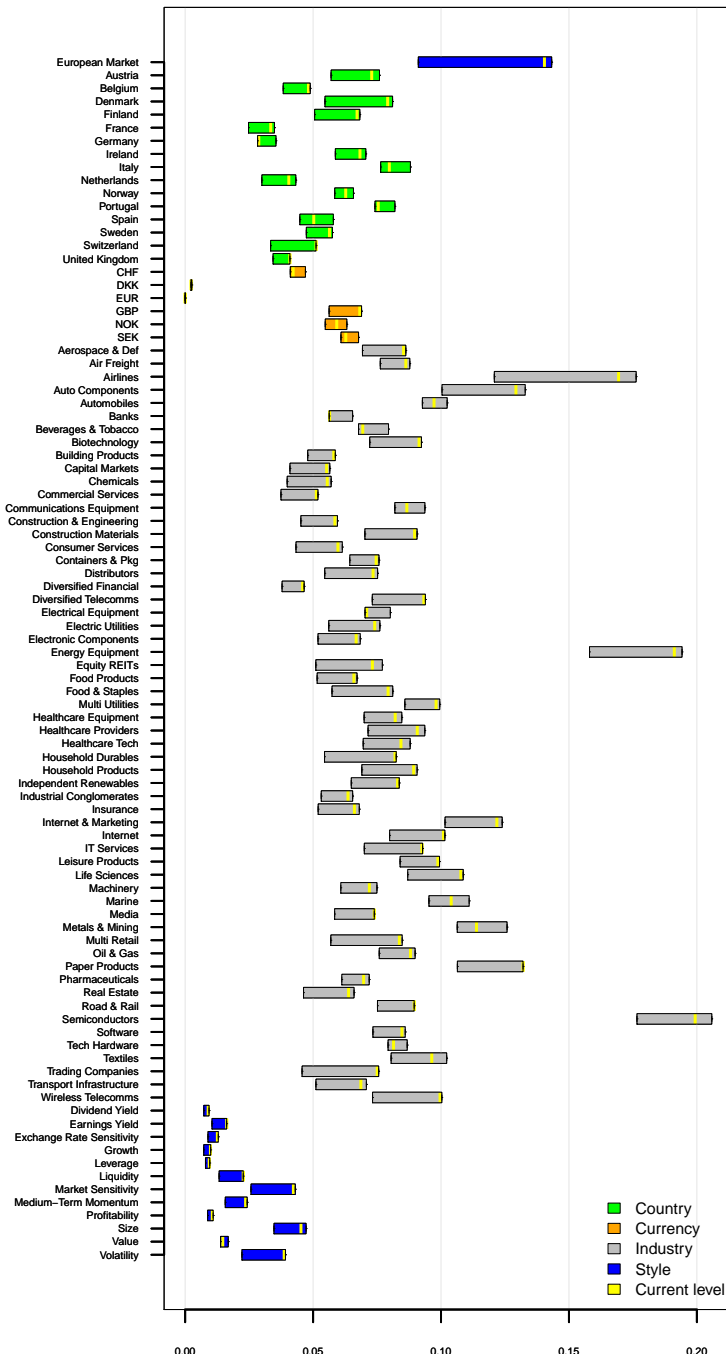


15. Style factor returns

	1w	1m	3m	6m
Profitability	0.15	0.59	0.85	0.89
Earnings Yield	0.66	0.96	2.15	1.76
Dividend Yield	-0.15	-0.15	-0.80	-0.11
Market Sensitivity	0.07	1.18	-1.05	-2.92
XR Sensitivity	-0.16	-0.05	-1.07	-2.18
Growth	-0.04	0.21	-0.79	-1.15
Leverage	-0.08	-0.26	-0.71	-0.66
Liquidity	0.88	0.93	-0.23	-1.72
MT Momentum	-0.17	-0.31	-1.52	-2.00
Size	-0.53	-1.82	1.31	2.32
Value	-0.18	-0.66	-1.97	-1.89
Volatility	-0.55	1.44	-0.76	-2.52



16. Factor volatility range (6 month)



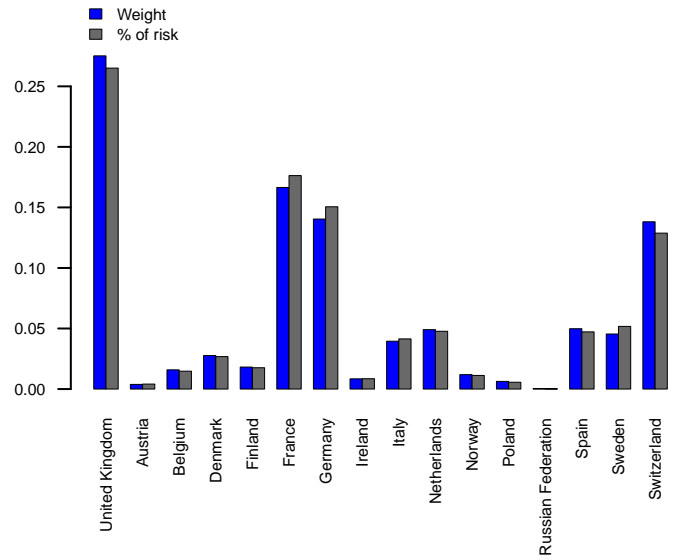
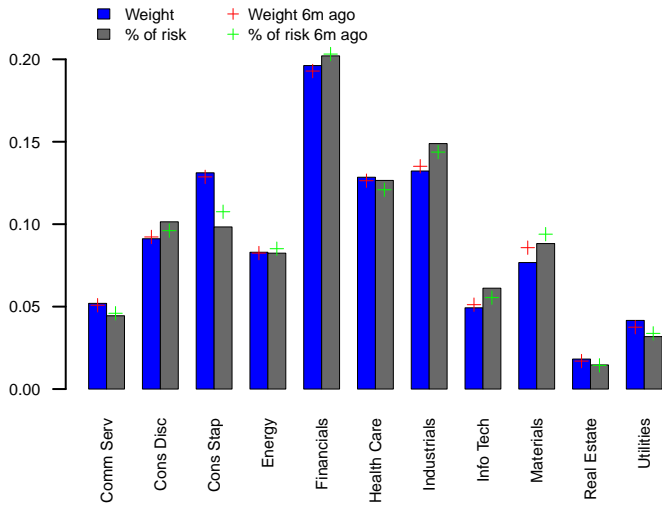
17. Style correlations

Volatility	-0.19	0.00	0.12	0.76	0.54	0.21	0.03	0.47	-0.21	0.14	0.21	1.00
Value	-0.18	-0.07	0.30	0.26	0.27	0.11	0.41	0.07	-0.17	0.08	1.00	0.21
Size	-0.05	0.08	0.03	0.16	-0.06	-0.02	0.06	0.15	0.02	1.00	0.08	0.14
MT Momentum	0.12	-0.29	-0.41	0.04	-0.12	-0.01	-0.02	-0.18	1.00	0.02	-0.17	-0.21
Liquidity	-0.08	0.17	-0.04	0.33	0.31	0.16	-0.04	1.00	-0.18	0.15	0.07	0.47
Leverage	-0.16	-0.06	0.13	0.07	-0.01	-0.09	1.00	-0.04	-0.02	0.06	0.41	0.03
Growth	0.04	-0.09	0.05	0.22	0.21	1.00	-0.09	0.16	-0.01	-0.02	0.11	0.21
XR Sensitivity	-0.22	-0.05	0.19	0.44	1.00	0.21	-0.01	0.31	-0.12	-0.06	0.27	0.54
Market Sensitivity	-0.11	-0.08	0.08	1.00	0.44	0.22	0.07	0.33	0.04	0.16	0.26	0.76
Dividend Yield	-0.18	-0.09	1.00	0.08	0.19	0.05	0.13	-0.04	-0.41	0.03	0.30	0.12
Earnings Yield	-0.23	1.00	-0.09	-0.08	-0.05	-0.09	-0.06	0.17	-0.29	0.08	-0.07	0.00
Profitability	1.00	-0.23	-0.18	-0.11	-0.22	0.04	-0.16	-0.08	0.12	-0.05	-0.18	-0.19

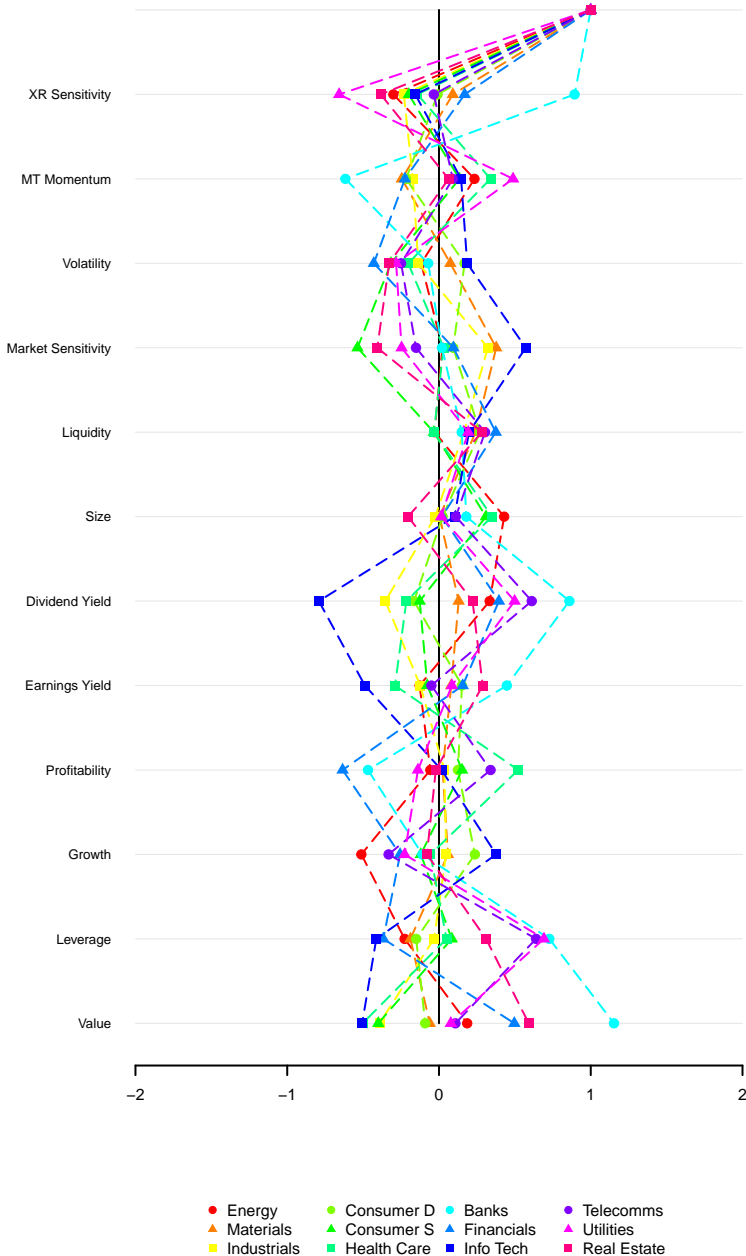
18. Change in style correlations (6 month)

Volatility	-0.10	0.05	-0.15	0.05	0.09	0.08	-0.11	0.07	0.06	-0.14	-0.09	0.00
Value	-0.07	-0.03	0.00	-0.13	0.02	-0.08	0.04	0.02	0.08	-0.04	0.00	-0.09
Size	0.01	0.04	-0.04	-0.06	-0.07	-0.03	0.00	-0.15	-0.06	0.00	-0.04	-0.14
MT Momentum	0.10	-0.18	-0.01	0.05	0.05	0.13	0.02	-0.06	0.00	-0.06	0.08	0.06
Liquidity	-0.14	0.14	-0.00	0.10	0.11	0.01	-0.02	0.00	-0.06	-0.15	0.02	0.07
Leverage	-0.06	-0.08	-0.06	-0.14	-0.01	-0.08	0.00	-0.02	0.02	0.00	0.04	-0.11
Growth	0.01	-0.13	-0.09	0.06	0.11	0.00	-0.08	0.01	0.13	-0.03	-0.08	0.08
XR Sensitivity	-0.18	-0.02	-0.05	0.03	0.00	0.11	-0.01	0.11	0.05	-0.07	0.02	0.09
Market Sensitivity	-0.07	-0.01	-0.12	0.00	0.03	0.06	-0.14	0.10	0.05	-0.06	-0.13	0.05
Dividend Yield	-0.01	0.06	0.00	-0.12	-0.05	-0.09	-0.06	-0.00	-0.01	-0.04	0.00	-0.15
Earnings Yield	0.08	0.00	0.06	-0.01	-0.02	-0.13	-0.08	0.14	-0.18	0.04	-0.03	0.05
Profitability	0.00	0.08	-0.01	-0.07	-0.18	0.01	-0.06	-0.14	0.10	0.01	-0.07	-0.10

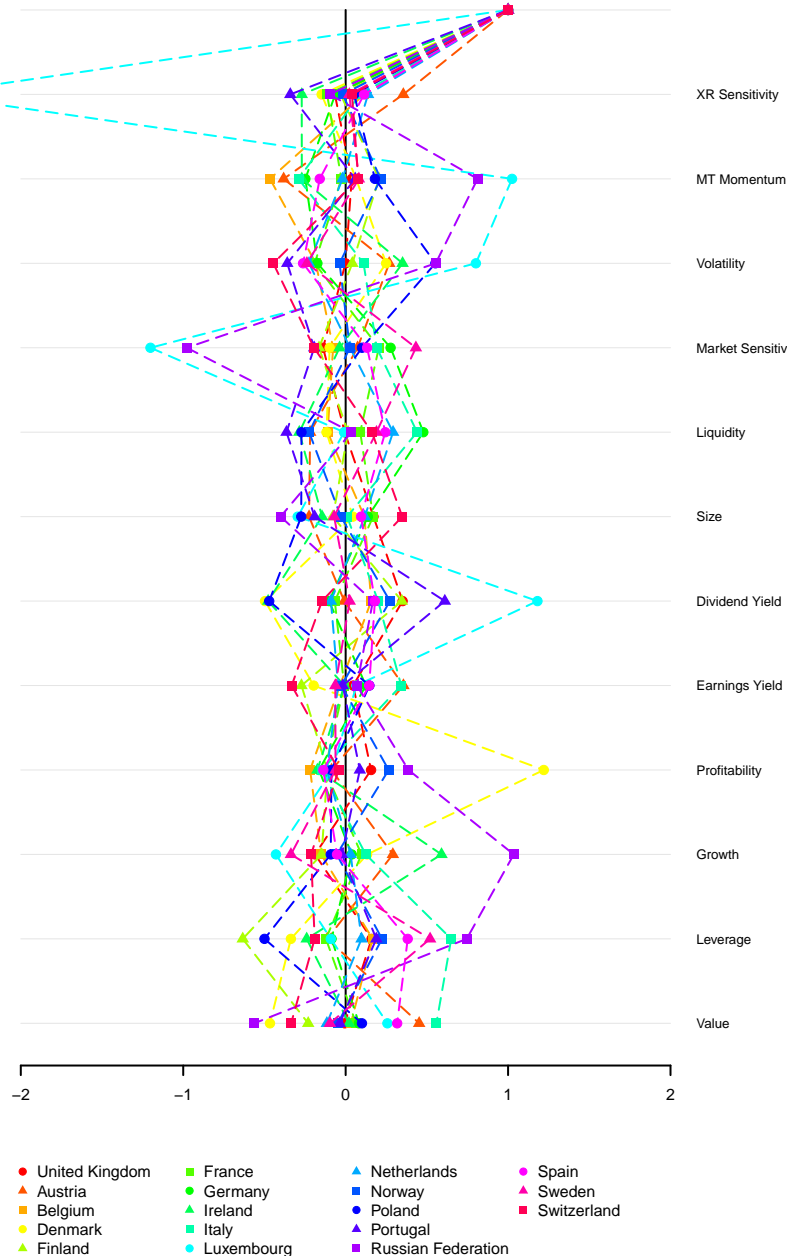
19. FTSE Developed Europe GICS 2018 weights and % of risk **20. FTSE Developed Europe country weights and % of risk**



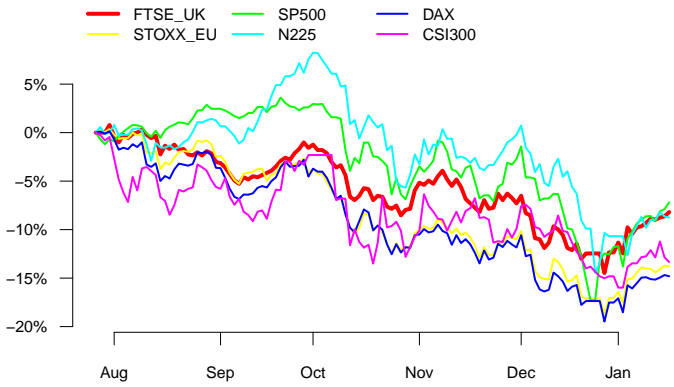
21. FTSE Developed Europe sector style exposures



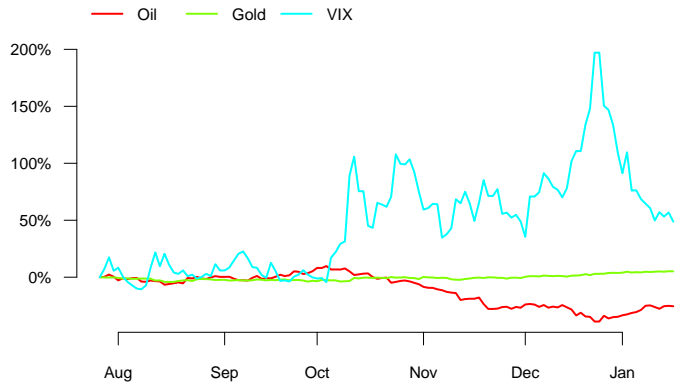
22. FTSE Developed Europe country style exposures



23. Returns for popular benchmarks



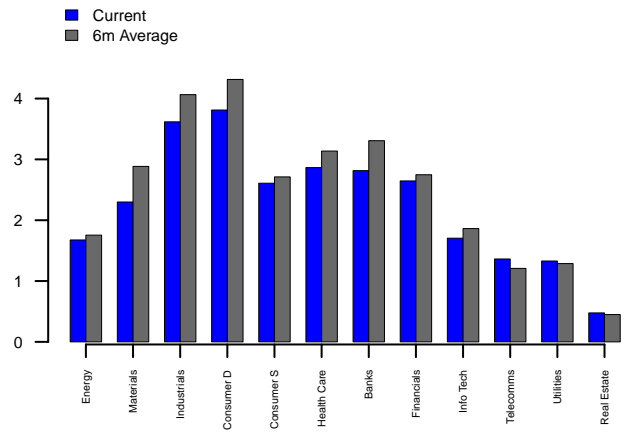
24. Returns for popular indicators



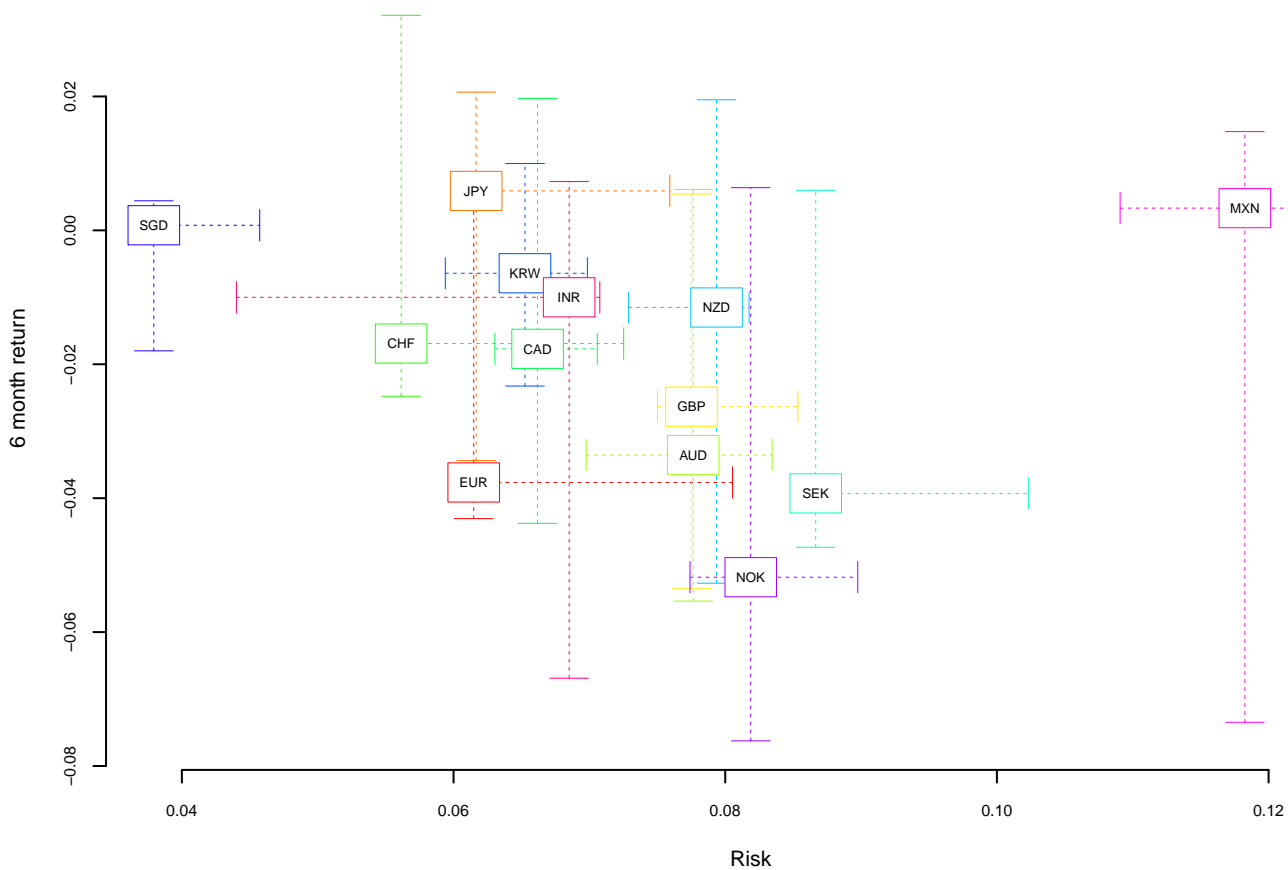
25. FTSE Developed Europe rolling ADV (USD billions)



26. FTSE Developed Europe ADV by sector



27. Currency risk and return vs USD



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 last 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 world model, based on the Axioma estimation universe. Circle size represents market cap.

6. FTSE Developed Europe predicted risk

Forecast risk estimate for the FTSE Developed Europe measured by the four Axioma Europe model variants. MH = medium horizon, SH = short, -S = statistical model.

Right hand axis shows FTSE Developed Europe return.

7. Rolling average asset correlations

Average correlation amongst FTSE Developed Europe stocks over trailing 20 and 60 day window. Right hand axis shows FTSE Developed Europe return.

8. Weekly asset return dispersion

Cross sectional volatility of weekly asset returns over FTSE Developed Europe 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 Developed Europe stocks.

10. Risk watch – FTSE Developed Europe

Change in FTSE Developed Europe risk vs total return over indicated period. Risk is measured by Axioma short horizon Europe 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 Developed Europe risk over 1 week, 1 month, 3 months and 6 months. For more details contact your Axioma representative.

12. Components of FTSE Developed Europe risk

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

13. FTSE Developed Europe diversification

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

14. Style factor performance

Cumulative performance of the Axioma Europe fundamental model style factors over the last 6 months

15. Style factor returns

Return of the Axioma Europe 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 Europe 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 Europe medium horizon fundamental model

18. Change in style correlations (6 month)

The change in correlation between style factors from the Europe medium horizon fundamental model over the last 6 months.

19. FTSE Developed Europe sector weights and % of risk

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

20. FTSE Developed Europe country weights and % of risk

The weight and contribution to risk of countries in the FTSE Developed Europe index. Risk is measured using the Axioma medium horizon fundamental model.

21. FTSE Developed Europe country style exposures

The weighted average exposure to Axioma Europe style factors for top level sectors in the FTSE Developed Europe index.

22. FTSE Developed Europe country style exposures

The weighted average exposure to Axioma Europe country factors for top level sectors in the FTSE Developed Europe 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 owners.

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 Developed Europe rolling ADV (USD billions)

Daily sum of 20-day average USD daily trading value for assets in FTSE Developed Europe.

26. FTSE Developed Europe ADV by sector

Current and 6 month average 20-day average USD daily trading value for assets in FTSE Developed Europe, 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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