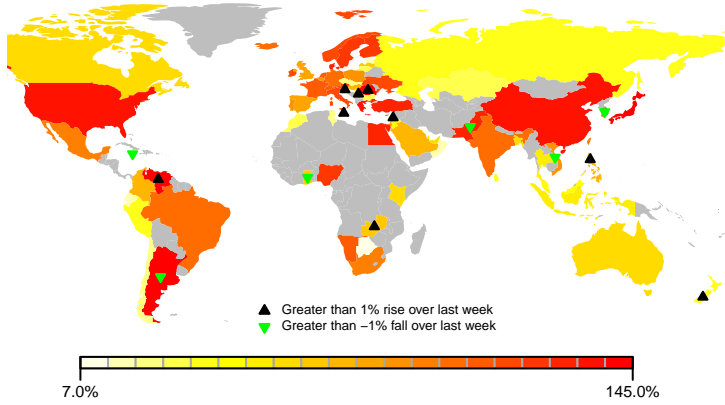
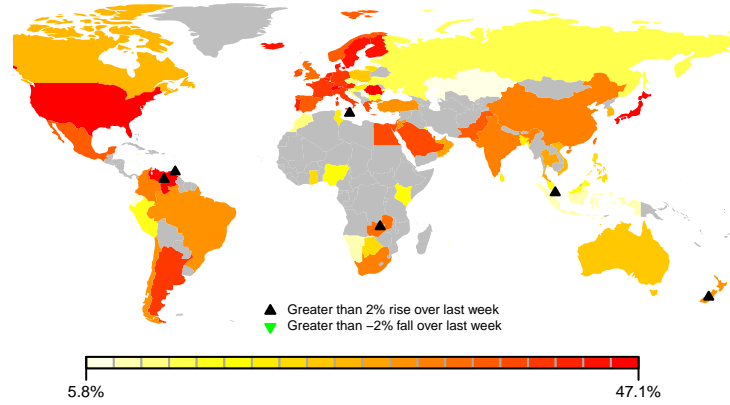


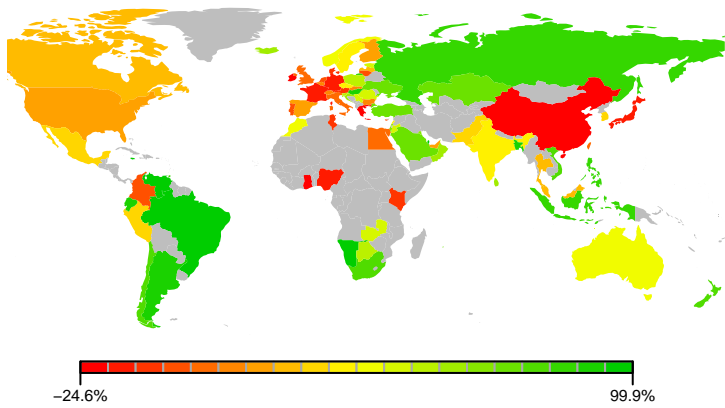
1. Global volatility hotspots



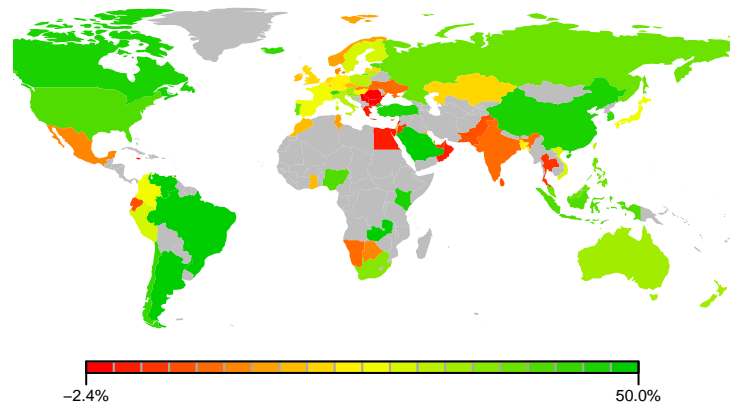
2. Global correlation hotspots



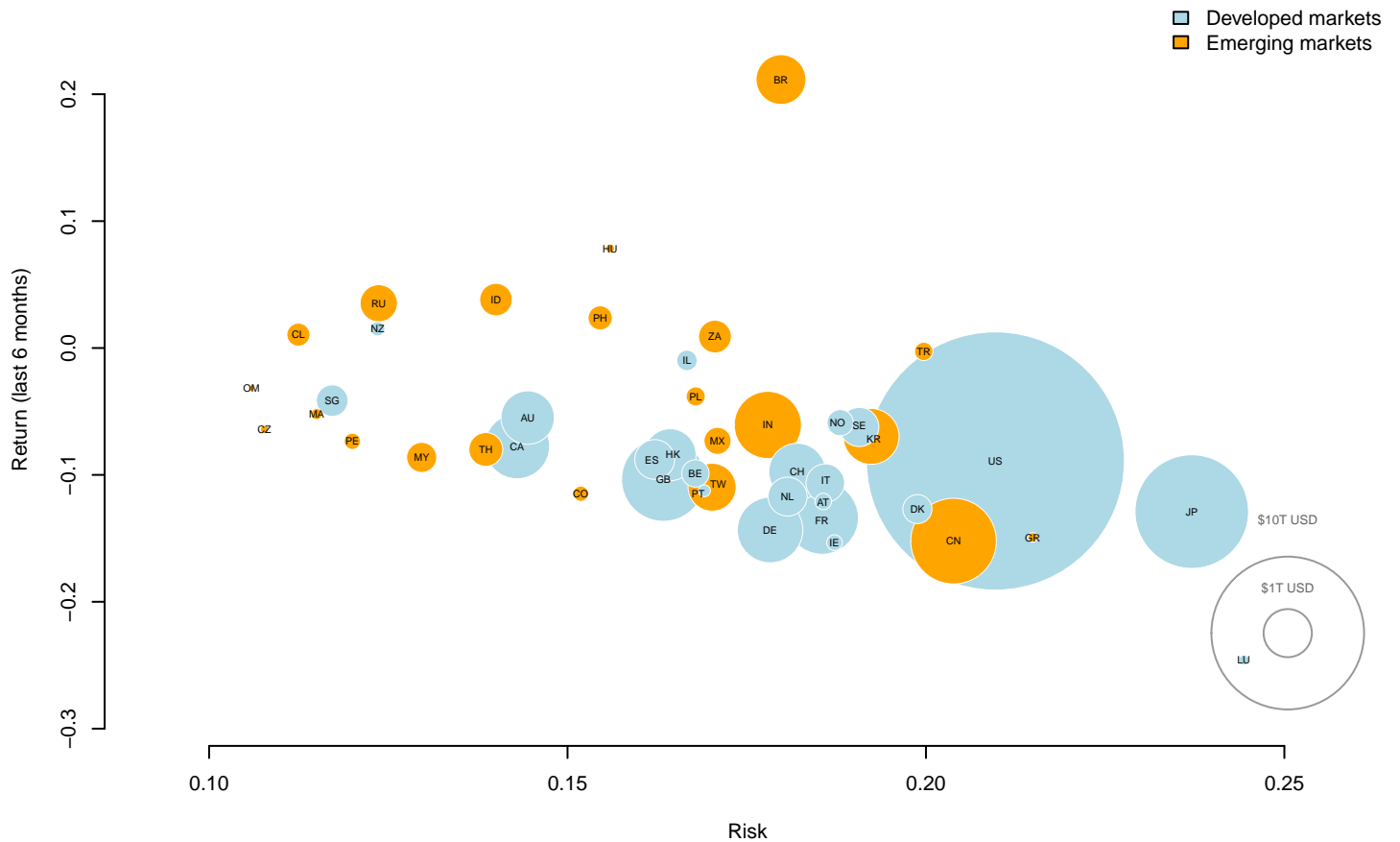
3. Global market returns (6 months)



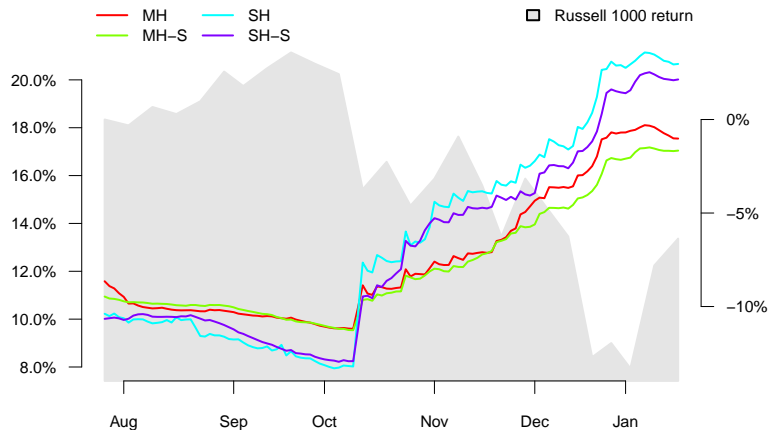
4. Global market returns (1 week)



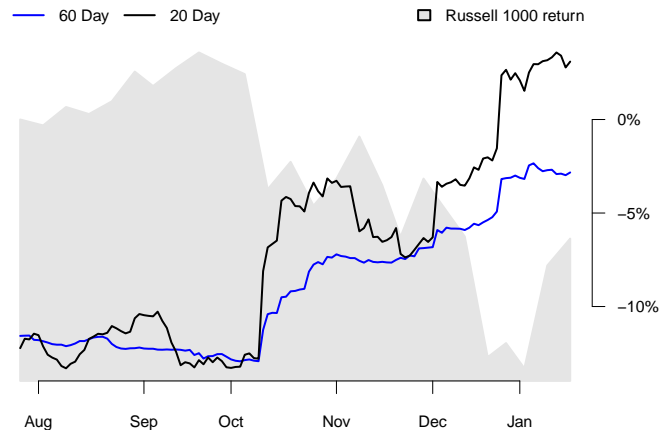
5. Global Market Risk and Return



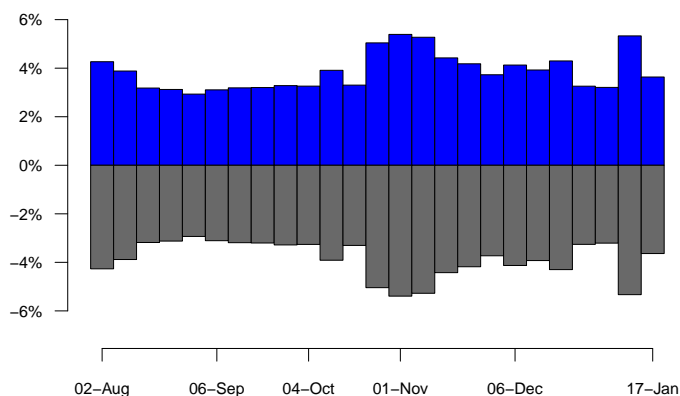
6. Russell 1000 predicted risk



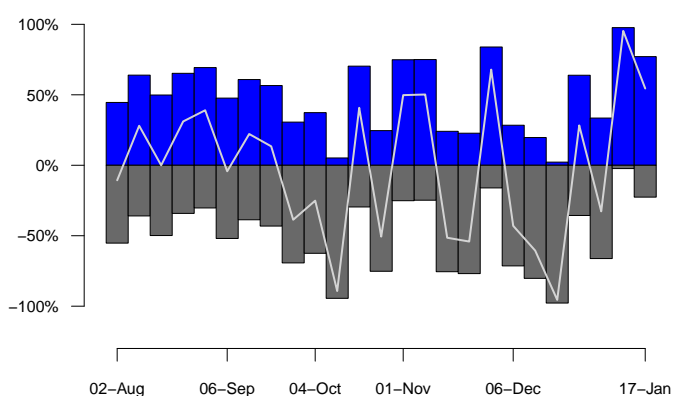
7. Rolling average asset correlations



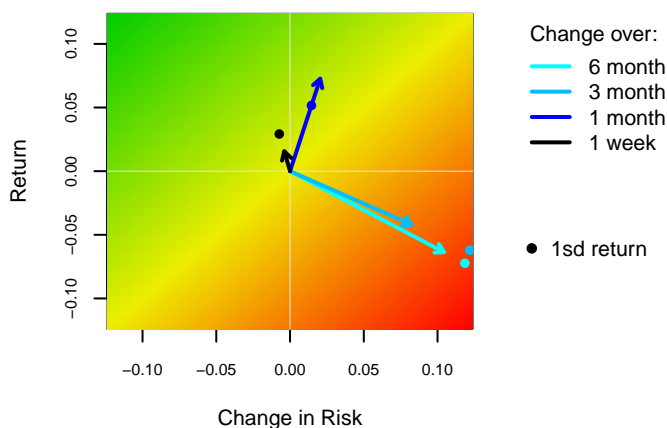
8. Weekly asset return dispersion



9. Weekly asset return proportion up/down



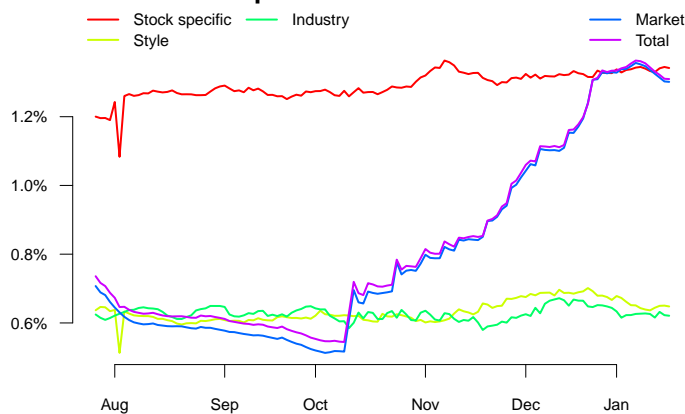
10. Risk Watch – Russell 1000



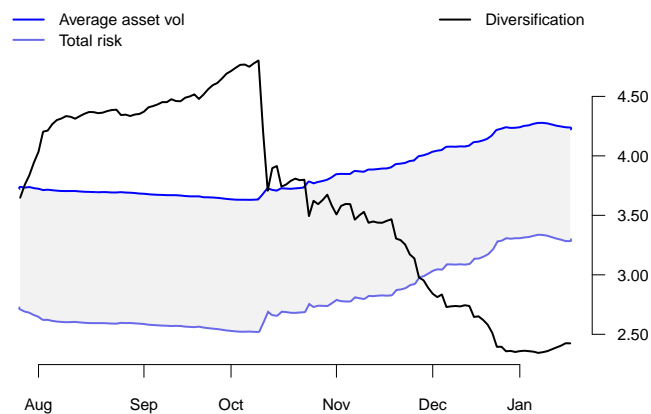
11. Risk change decomposition

	1 week	1 month	3 months	6 months
Factor level				
Initial risk	21.06	18.62	12.43	10.22
Portfolio composition	0.02	0.15	-0.04	-0.12
Stock characteristics	-0.03	-0.02	0.08	0.00
Stock specific volatility	0.00	0.00	0.02	0.02
Factor volatility	-0.37	1.95	8.22	10.66
Factor correlations	0.00	-0.03	-0.04	-0.12
Total change	-0.39	2.05	8.24	10.44
Final risk	20.67	20.67	20.67	20.67
Stock level				
Initial risk	21.06	18.62	12.43	10.22
Portfolio composition	0.02	0.15	-0.04	-0.12
Stock volatility	-0.33	0.69	4.98	5.93
Stock correlations	-0.08	1.20	3.29	4.63
Total change	-0.39	2.05	8.24	10.44
Final risk	20.67	20.67	20.67	20.67

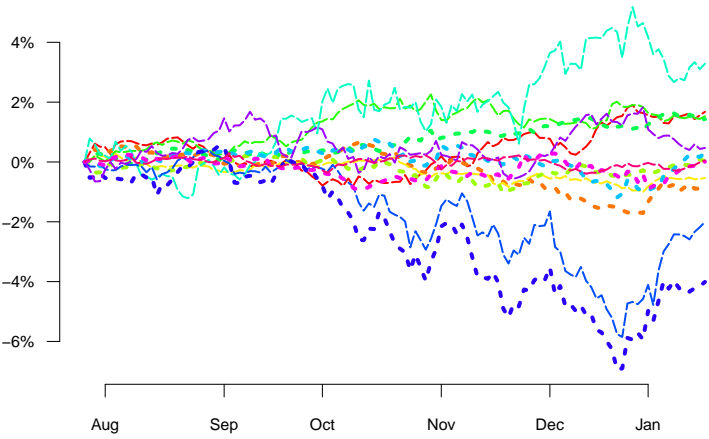
12. Components of Russell 1000 risk



13. Russell 1000 diversification

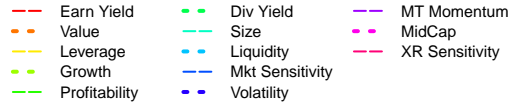


14. Style factor performance

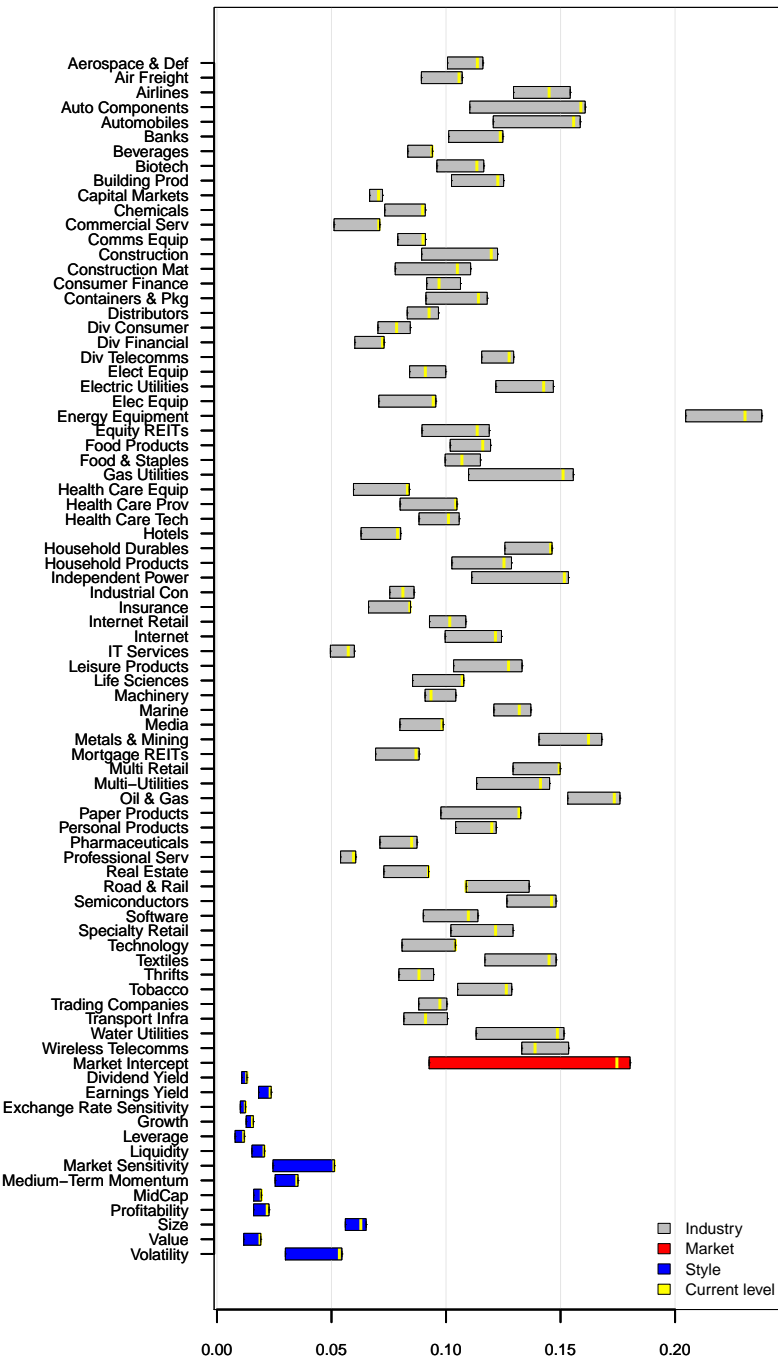


15. Style factor returns

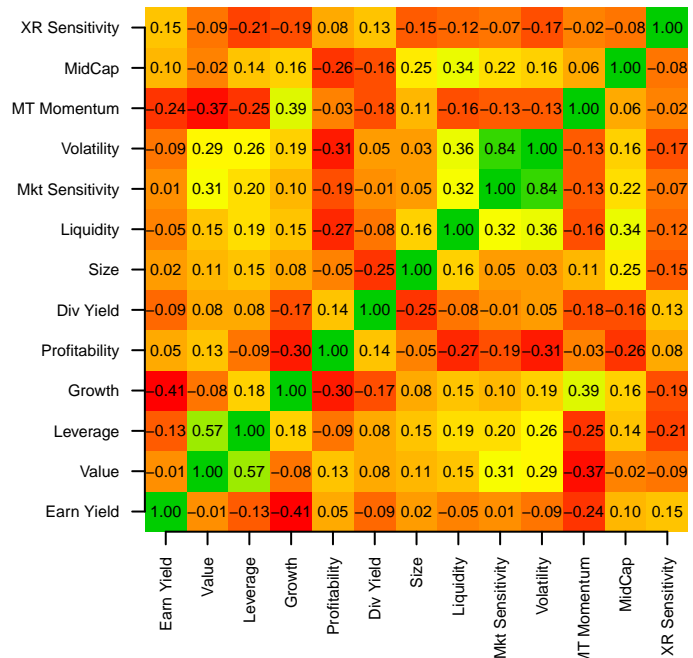
	1w	1m	3m	6m
Earn Yield	0.16	0.57	2.36	1.68
Value	-0.01	0.54	-1.28	-0.99
Leverage	0.03	0.18	-0.60	-0.54
Growth	0.13	0.38	0.01	0.03
Profitability	0.04	0.37	-0.24	1.53
Div Yield	-0.09	0.13	1.06	1.43
Size	0.47	-0.84	1.56	3.29
Liquidity	0.36	0.94	-0.37	0.30
Mkt Sensitivity	0.43	2.68	-0.92	-2.01
Volatility	0.22	1.70	-2.38	-4.01
MT Momentum	-0.12	-0.77	0.28	0.47
MidCap	0.29	0.40	0.70	0.01
XR Sensitivity	0.34	0.41	0.04	0.05



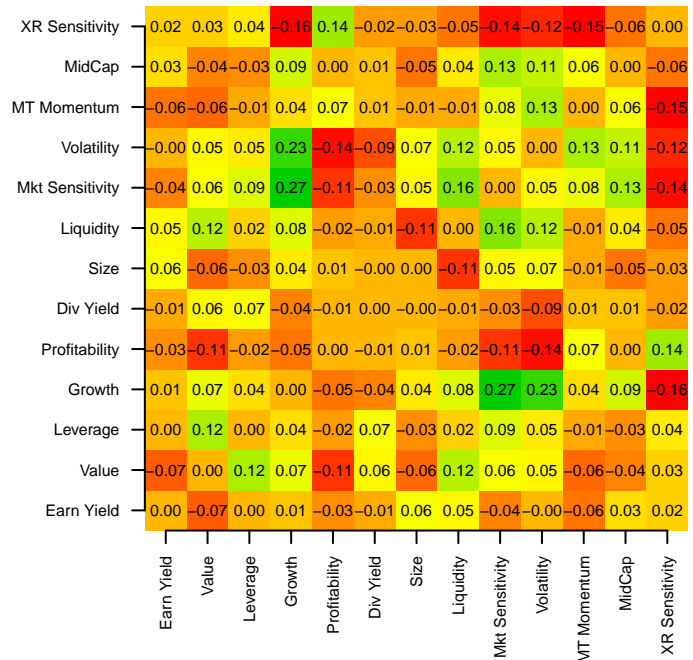
16. Factor volatility range (6 month)



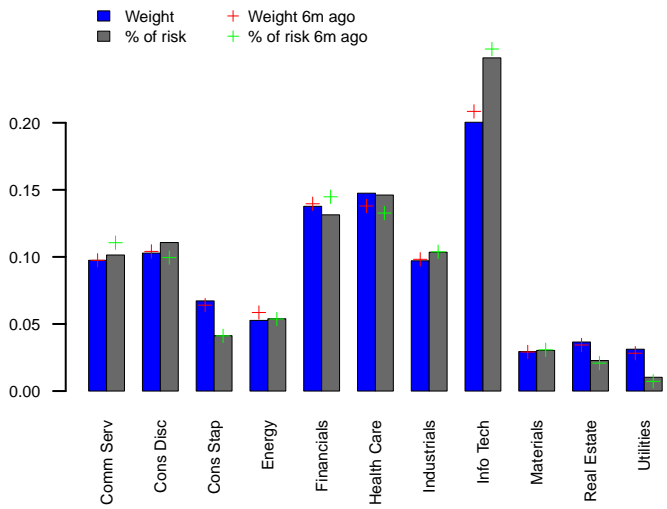
17. Style correlations



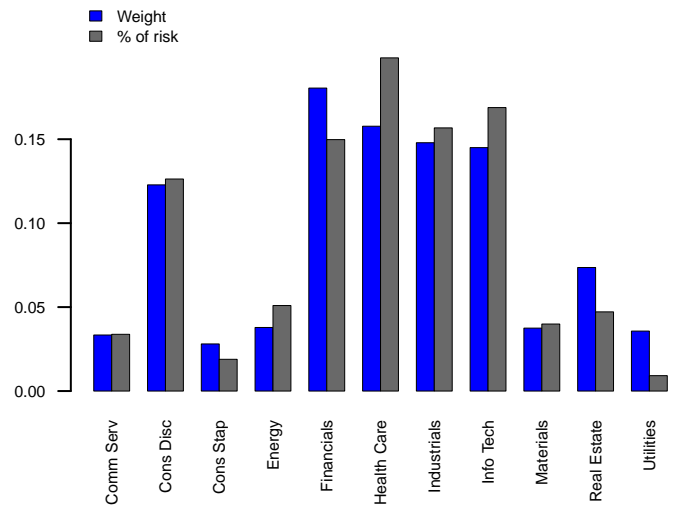
18. Change in style correlations (6 month)



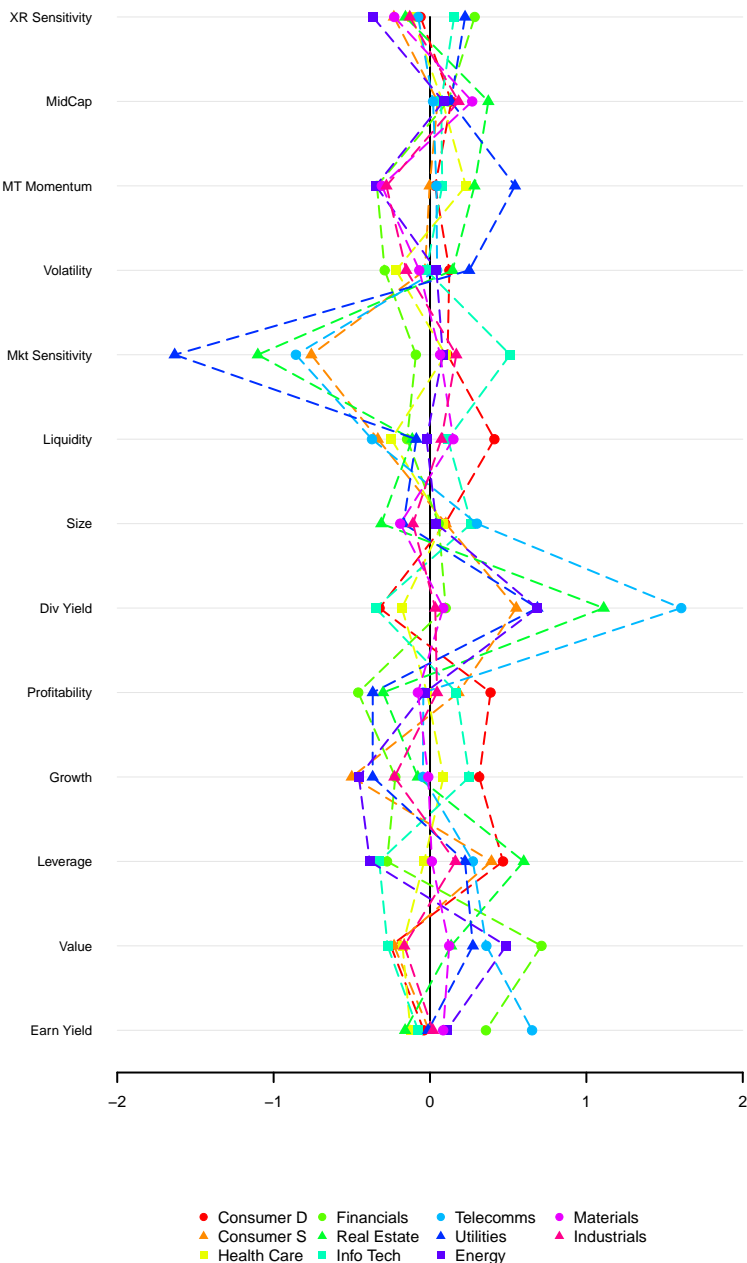
19. Russell 1000 GICS 2018 weights and % of risk



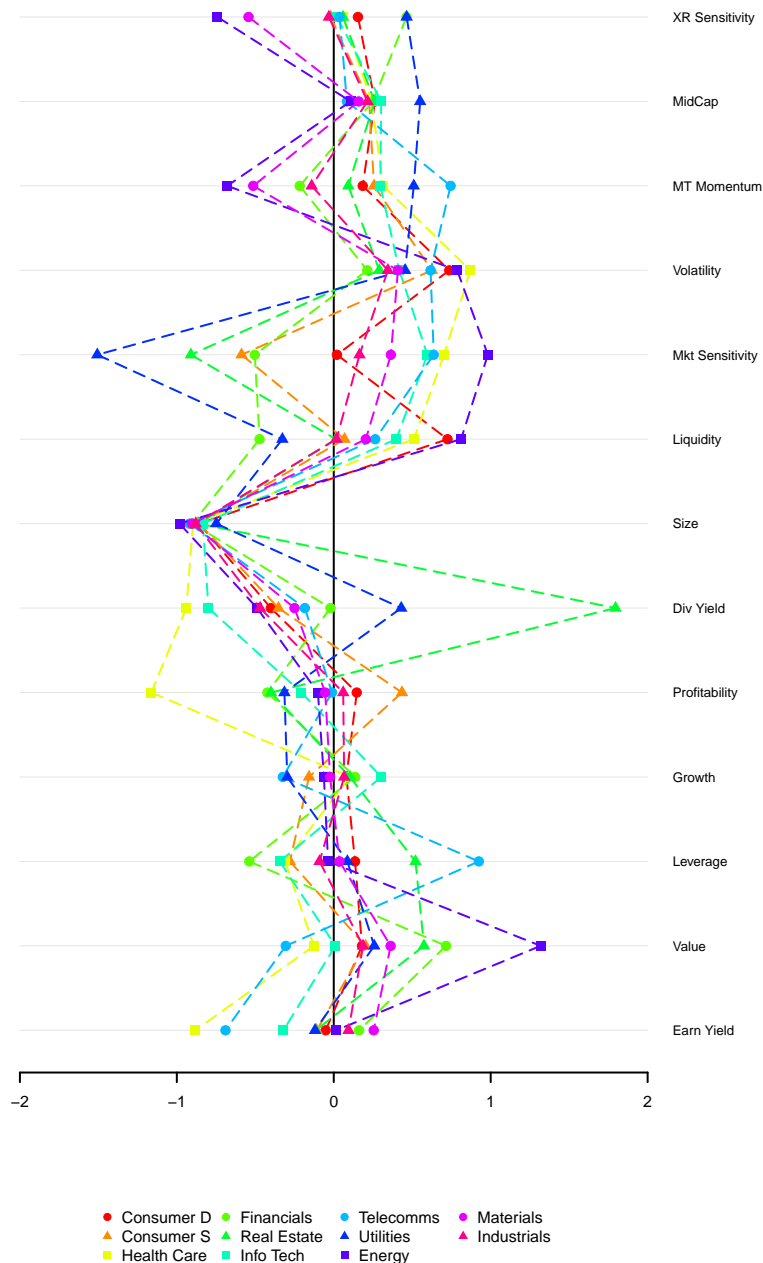
20. Russell 2000 GICS 2018 weights and % of risk



21. Russell 1000 sector style exposures



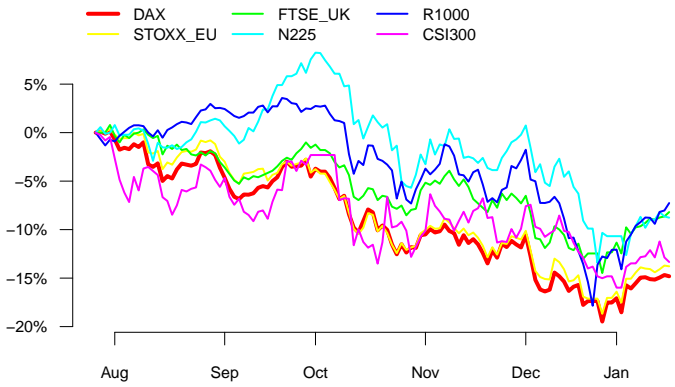
22. Russell 2000 sector style exposures



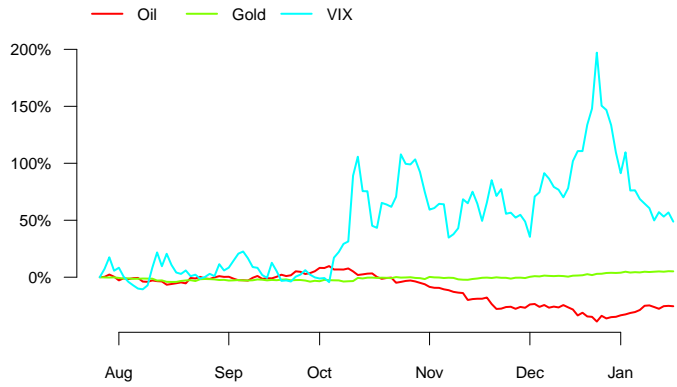
● Consumer D ● Financials ● Telecomms ● Materials
 ▲ Consumer S ▲ Real Estate ▲ Utilities ▲ Industrials
 ■ Health Care ■ Info Tech ■ Energy

● Consumer D ● Financials ● Telecomms ● Materials
 ▲ Consumer S ▲ Real Estate ▲ Utilities ▲ Industrials
 ■ Health Care ■ Info Tech ■ Energy

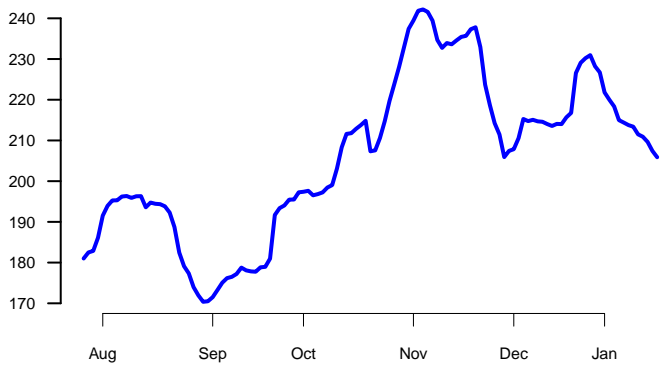
23. Returns for popular benchmarks



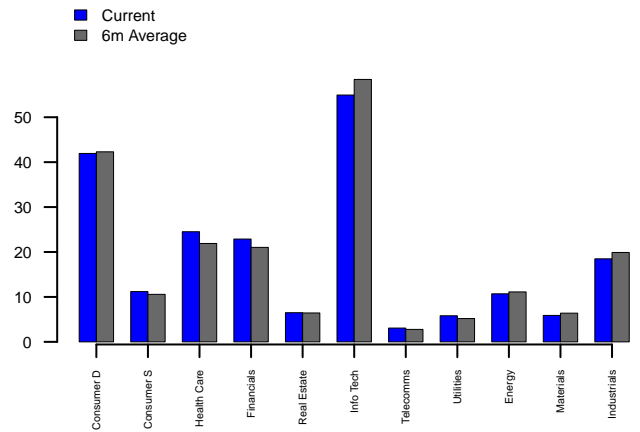
24. Returns for popular indicators



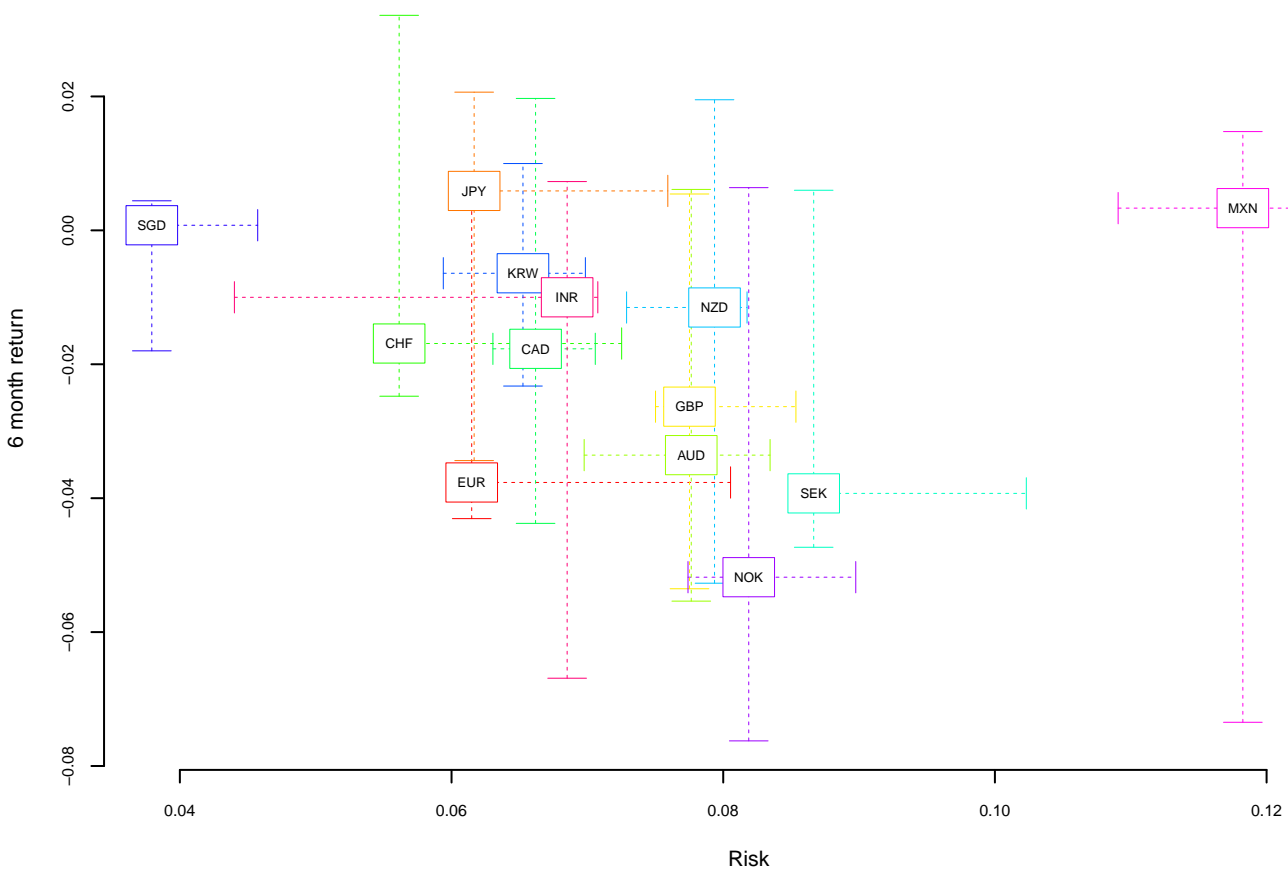
25. Russell 1000 rolling ADV (USD billions)



26. Russell 1000 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. Russell 1000 predicted risk

Forecast risk estimate for the Russell 1000 measured by the four Axioma US model variants. MH = medium horizon, SH = short, -S = statistical model. Right hand axis shows Russell 1000 return.

7. Rolling average asset correlations

Average correlation amongst Russell 1000 stocks over trailing 20 and 60 day window. Right hand axis shows Russell 1000 return.

8. Weekly asset return dispersion

Cross sectional volatility of weekly asset returns over Russell 1000 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 Russell 1000 stocks.

10. Risk watch – Russell 1000

Change in Russell 1000 risk vs total return over indicated period. Risk is measured by Axioma short horizon US 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 Russell 1000 risk over 1 week, 1 month, 3 months and 6 months. For more details contact your Axioma representative.

12. Components of Russell 1000 risk

Russell 1000 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. Russell 1000 diversification

Diversification is measured as the ratio of weighted average asset variance to total Russell 1000 variance, measured by the Axioma medium horizon US model.

14. Style factor performance

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

15. Style factor returns

Return of the Axioma US 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 US 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 US medium horizon fundamental model

18. Change in style correlations (6 month)

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

19. Russell 1000 sector weights and % of risk

The weight and contribution to risk of top level sectors in the Russell 1000 index. Risk is measured using the Axioma medium horizon fundamental model.

20. Russell 2000 sector weights and % of risk

The weight and contribution to risk of top level sectors in the Russell 2000 index. Risk is measured using the Axioma medium horizon fundamental model.

21. Russell 1000 sector style exposures

The weighted average exposure to Axioma US style factors for top level sectors in the Russell 1000 index.

22. Russell 2000 sector style exposures

The weighted average exposure to Axioma US style factors for top level sectors in the Russell 2000 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. Russell 1000 rolling ADV (USD billions)

Daily sum of 20-day average USD daily trading value for assets in Russell 1000.

26. Russell 1000 ADV by sector

Current and 6 month average 20-day average USD daily trading value for assets in Russell 1000, 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

Disclaimer

The information contained in this analysis is the proprietary property of Axioma Inc., is provided solely for informational purposes, and has been compiled or arrived at based upon information obtained from sources believed to be reliable and in good faith, but is not guaranteed as being accurate. Axioma Inc. is not, and does not represent itself to be, an investment advisor and the information provided by Axioma Inc. in this analysis does not constitute nor should be taken to constitute investment advice. The "[Axioma]" symbol and "Flexible is Better" are trademarks and service marks of Axioma Inc. Copyright 2012, All rights reserved.