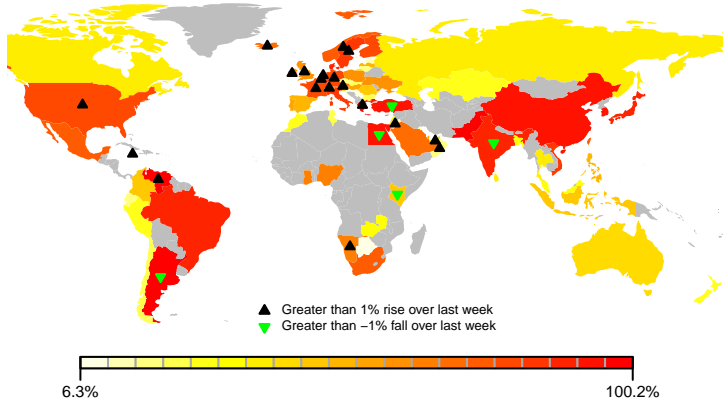
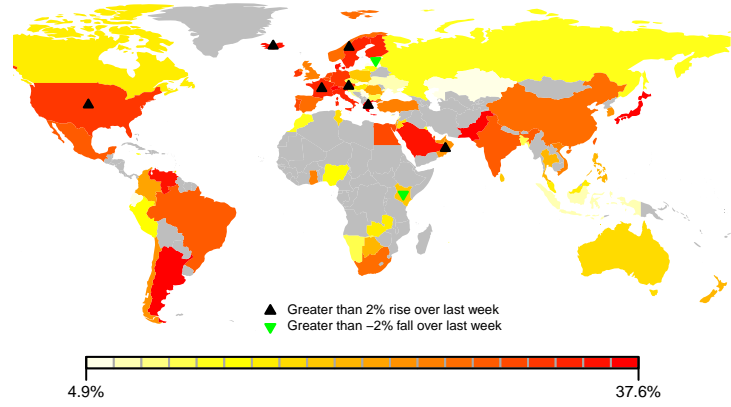


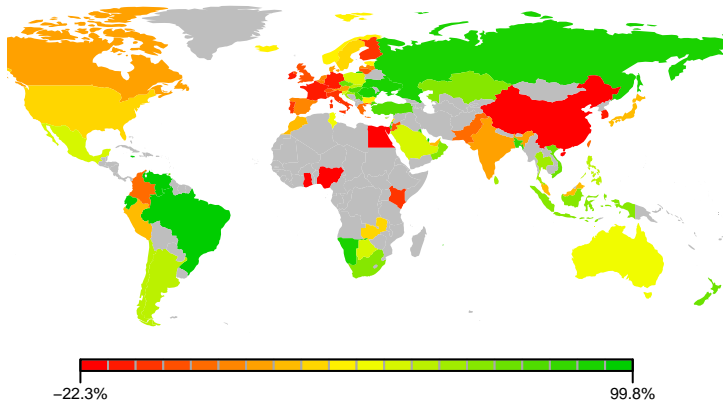
**1. Global volatility hotspots**



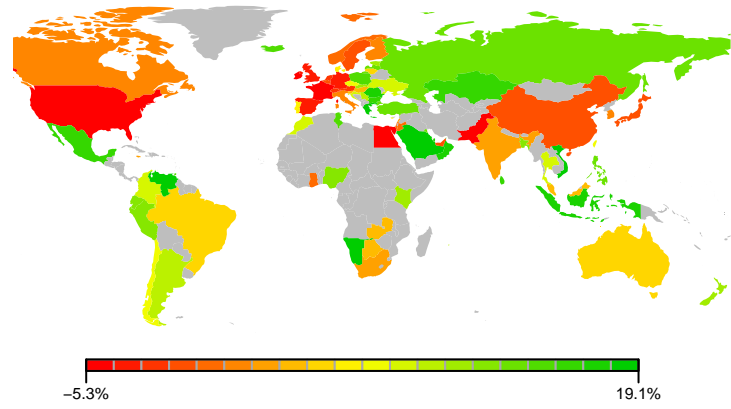
**2. Global correlation hotspots**



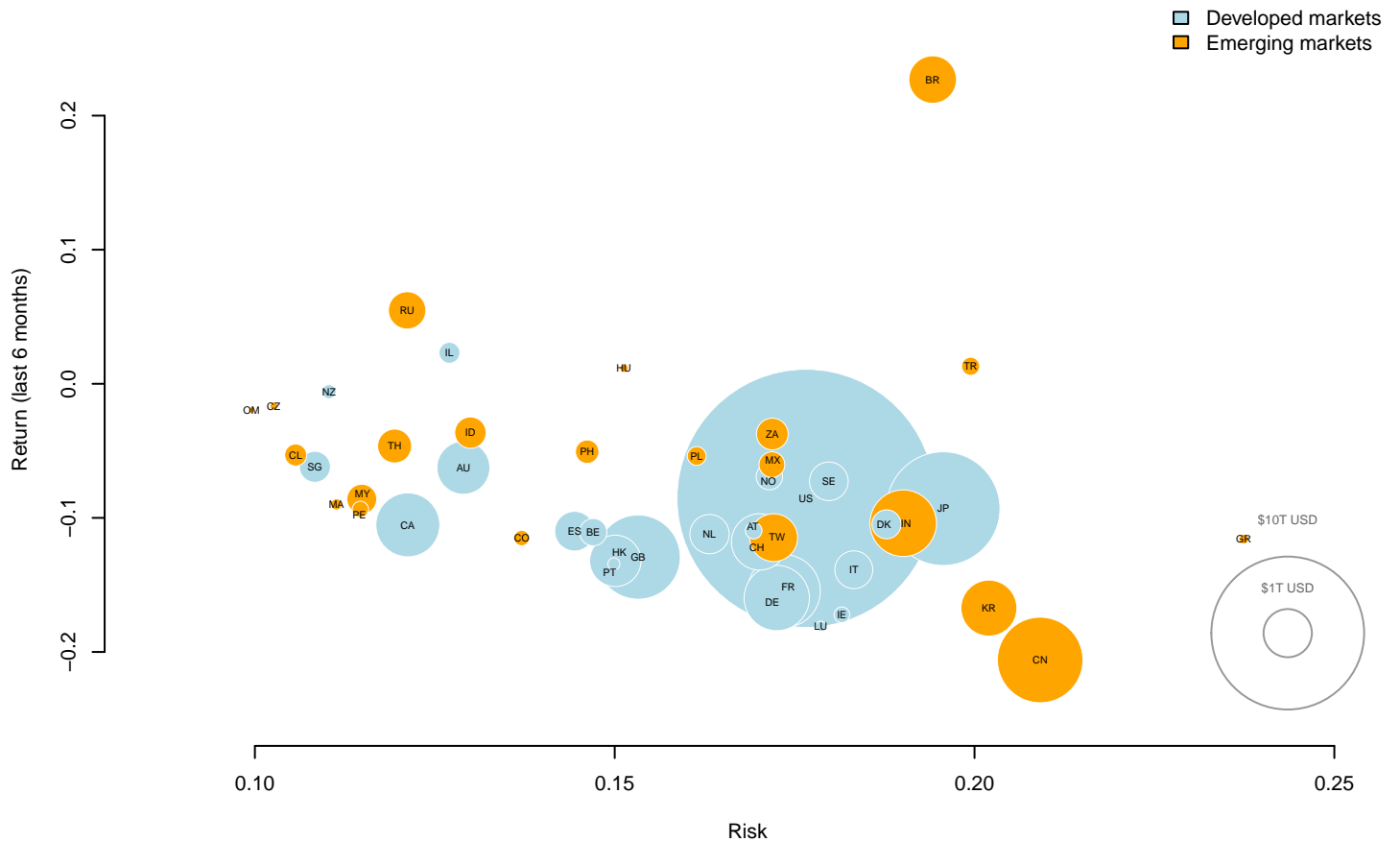
**3. Global market returns (6 months)**



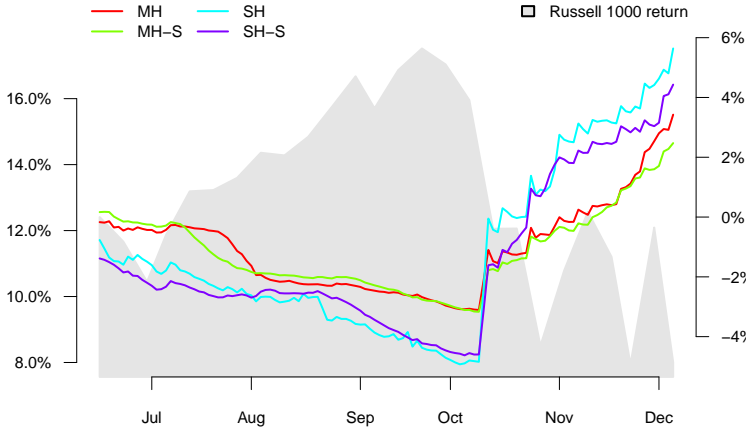
**4. Global market returns (1 week)**



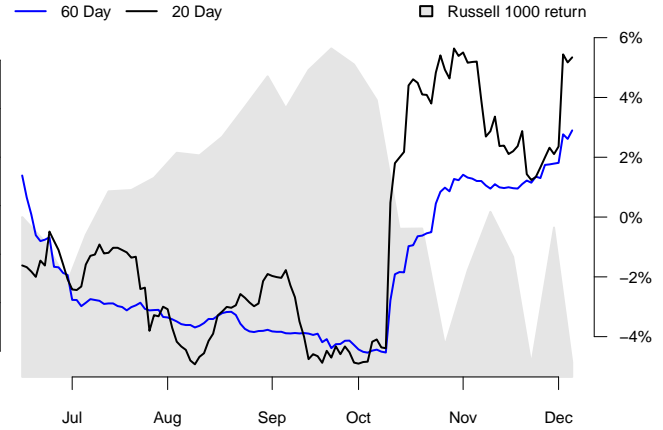
**5. Global Market Risk and Return**



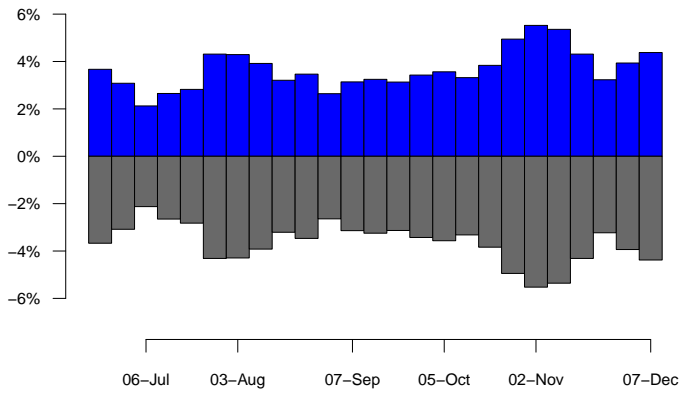
### 6. Russell 1000 predicted risk



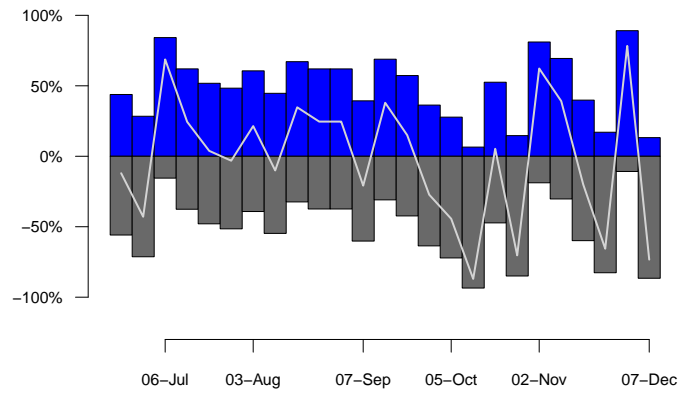
### 7. Rolling average asset correlations



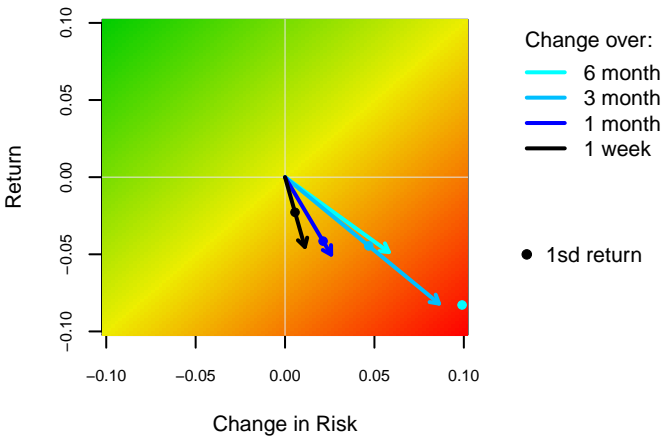
### 8. Weekly asset return dispersion



### 9. Weekly asset return proportion up/down



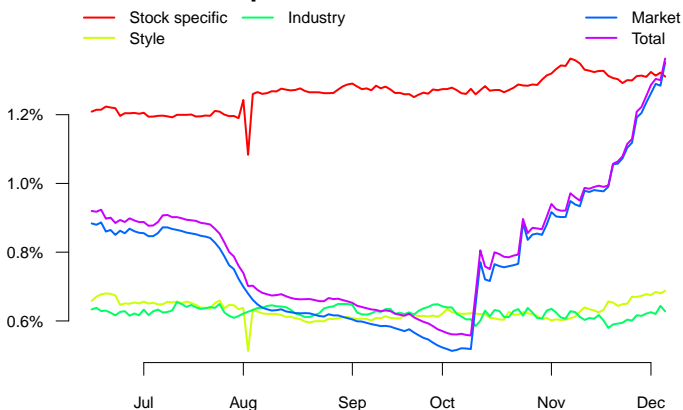
### 10. Risk Watch – Russell 1000



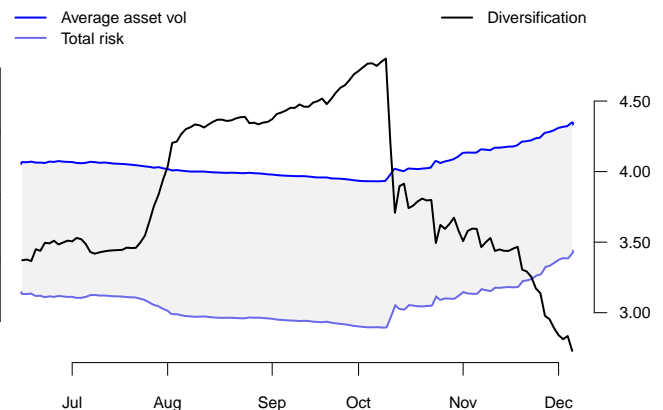
### 11. Risk change decomposition

	1 week	1 month	3 months	6 months
<b>Factor level</b>				
Initial risk	16.41	14.94	8.91	11.71
Portfolio composition	-0.06	-0.09	-0.16	-0.16
Stock characteristics	0.03	0.07	0.02	-0.05
Stock specific volatility	0.00	0.00	0.02	0.02
Factor volatility	1.14	2.58	8.75	6.07
Factor correlations	0.01	0.02	-0.02	-0.07
<b>Total change</b>	1.11	2.58	8.61	5.81
<b>Final risk</b>	17.52	17.52	17.52	17.52
<b>Stock level</b>				
Initial risk	16.41	14.94	8.91	11.71
Portfolio composition	-0.06	-0.09	-0.16	-0.16
Stock volatility	0.65	1.46	4.76	3.74
Stock correlations	0.53	1.21	4.02	2.23
<b>Total change</b>	1.11	2.58	8.61	5.81
<b>Final risk</b>	17.52	17.52	17.52	17.52

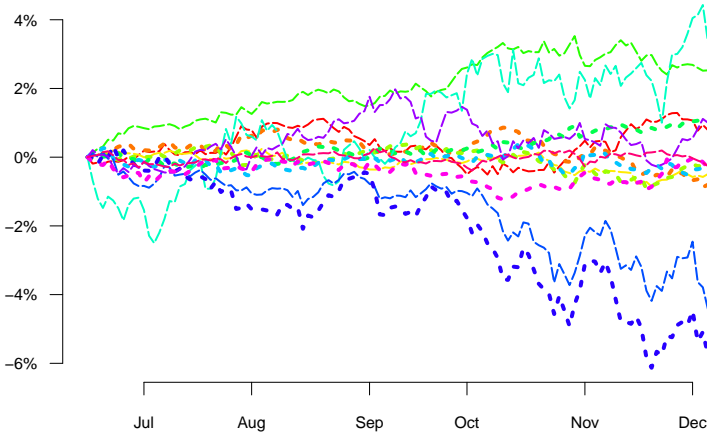
### 12. Components of Russell 1000 risk



### 13. Russell 1000 diversification



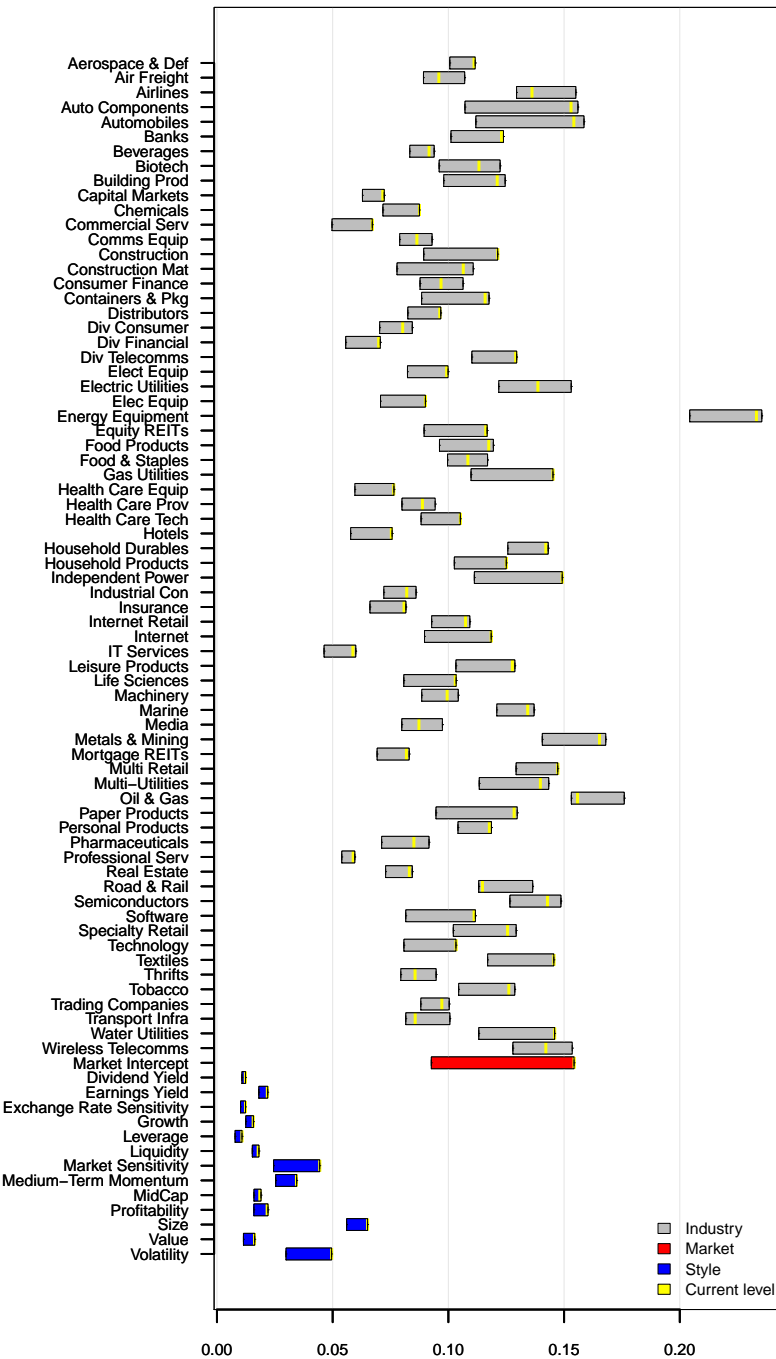
### 14. Style factor performance



### 15. Style factor returns

	1w	1m	3m	6m
Earn Yield	-0.31	0.32	0.61	0.79
Value	-0.34	-1.01	-0.89	-0.80
Leverage	-0.12	-0.08	-0.19	-0.49
Growth	0.03	0.30	-0.52	-0.29
Profitability	-0.15	-0.37	0.73	2.53
Div Yield	0.23	0.39	0.98	1.20
Size	0.14	1.22	3.55	3.35
Liquidity	0.01	-0.60	-0.28	-0.43
Mkt Sensitivity	-1.53	-2.21	-3.30	-4.43
Volatility	-1.01	-2.47	-4.14	-5.76
MT Momentum	0.47	0.67	-0.51	1.00
MidCap	-0.21	0.36	0.15	-0.30
XR Sensitivity	-0.28	-0.27	-0.44	-0.26

### 16. Factor volatility range (6 month)



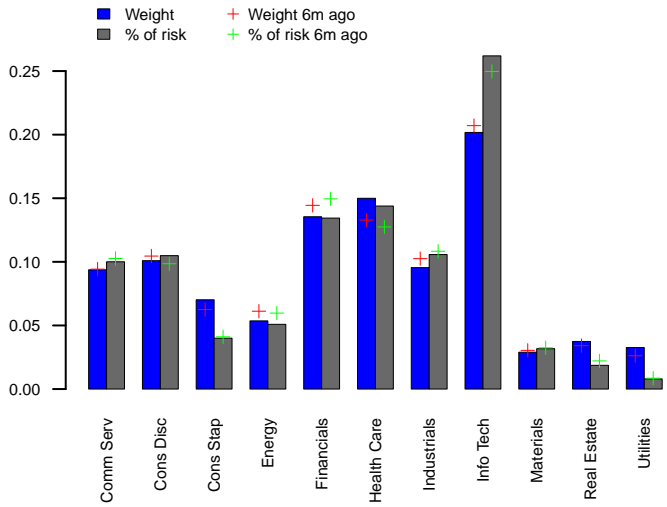
### 17. Style correlations

XR Sensitivity	0.14	-0.09	-0.23	-0.17	0.06	0.20	-0.17	-0.11	-0.05	-0.16	-0.00	-0.09	1.00
MidCap	0.10	-0.02	0.15	0.16	-0.29	-0.17	0.27	0.29	0.21	0.18	0.07	1.00	-0.09
MT Momentum	-0.27	-0.34	-0.22	0.40	-0.04	-0.17	0.07	-0.15	-0.09	-0.10	1.00	0.07	-0.00
Volatility	-0.05	0.24	0.22	0.17	-0.28	-0.05	0.07	0.33	0.83	1.00	-0.10	0.18	-0.16
Mkt Sensitivity	0.06	0.29	0.17	0.10	-0.16	-0.14	0.13	0.26	1.00	0.83	-0.09	0.21	-0.05
Liquidity	-0.04	0.14	0.18	0.13	-0.28	-0.14	0.22	1.00	0.26	0.33	-0.15	0.29	-0.11
Size	-0.03	0.20	0.20	0.10	-0.06	-0.22	1.00	0.22	0.13	0.07	0.07	0.27	-0.17
Div Yield	-0.03	-0.03	0.01	-0.22	0.22	1.00	-0.22	-0.14	-0.14	-0.05	-0.17	-0.17	0.20
Profitability	0.03	0.19	-0.05	-0.30	1.00	0.22	-0.06	-0.28	-0.16	-0.28	-0.04	-0.29	0.06
Growth	-0.40	-0.10	0.18	1.00	-0.30	-0.22	0.10	0.13	0.10	0.17	0.40	0.16	-0.17
Leverage	-0.08	0.52	1.00	0.18	-0.05	0.01	0.20	0.18	0.17	0.22	-0.22	0.15	-0.23
Value	0.08	1.00	0.52	-0.10	0.19	-0.03	0.20	0.14	0.29	0.24	-0.34	-0.02	-0.09
Earn Yield	1.00	0.08	-0.08	-0.40	0.03	-0.03	-0.03	-0.04	0.06	-0.05	-0.27	0.10	0.14

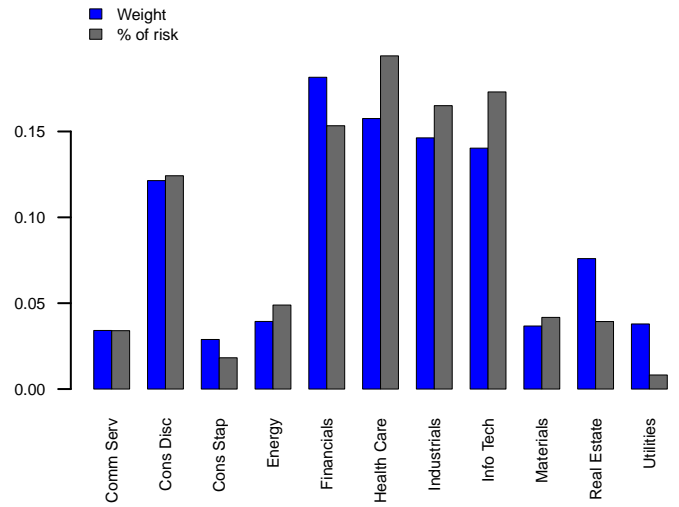
### 18. Change in style correlations (6 month)

XR Sensitivity	-0.02	-0.02	0.03	-0.10	0.09	0.06	-0.05	0.00	-0.10	-0.11	-0.10	-0.04	0.00
MidCap	0.04	-0.07	-0.06	0.13	-0.02	0.01	-0.06	0.03	0.15	0.12	0.10	0.00	-0.04
MT Momentum	-0.08	-0.05	-0.01	0.06	0.05	0.02	-0.04	0.04	0.12	0.14	0.00	0.10	-0.10
Volatility	0.03	0.02	0.02	0.21	-0.09	-0.19	0.09	0.08	0.03	0.00	0.14	0.12	-0.11
Mkt Sensitivity	0.01	0.02	0.06	0.29	-0.10	-0.16	0.13	0.12	0.00	0.03	0.12	0.15	-0.10
Liquidity	0.05	0.05	-0.02	0.10	-0.03	-0.09	-0.09	0.00	0.12	0.08	0.04	0.03	0.00
Size	0.03	0.04	0.02	0.04	0.00	0.02	0.00	-0.09	0.13	0.09	-0.04	-0.06	-0.05
Div Yield	0.04	-0.04	0.00	-0.10	0.08	0.00	0.02	-0.09	-0.16	-0.19	0.02	0.01	0.06
Profitability	-0.05	-0.02	0.04	-0.05	0.00	0.08	0.00	-0.03	-0.10	-0.09	0.05	-0.02	0.09
Growth	0.02	0.04	0.02	0.00	-0.05	-0.10	0.04	0.10	0.29	0.21	0.06	0.13	-0.10
Leverage	0.07	0.08	0.00	0.02	0.04	0.00	0.02	-0.02	0.06	0.02	-0.01	-0.06	0.03
Value	0.03	0.00	0.08	0.04	-0.02	-0.04	0.04	0.05	0.02	0.02	-0.05	-0.07	-0.02
Earn Yield	0.00	0.03	0.07	0.02	-0.05	0.04	0.03	0.05	0.01	0.03	-0.08	0.04	-0.02

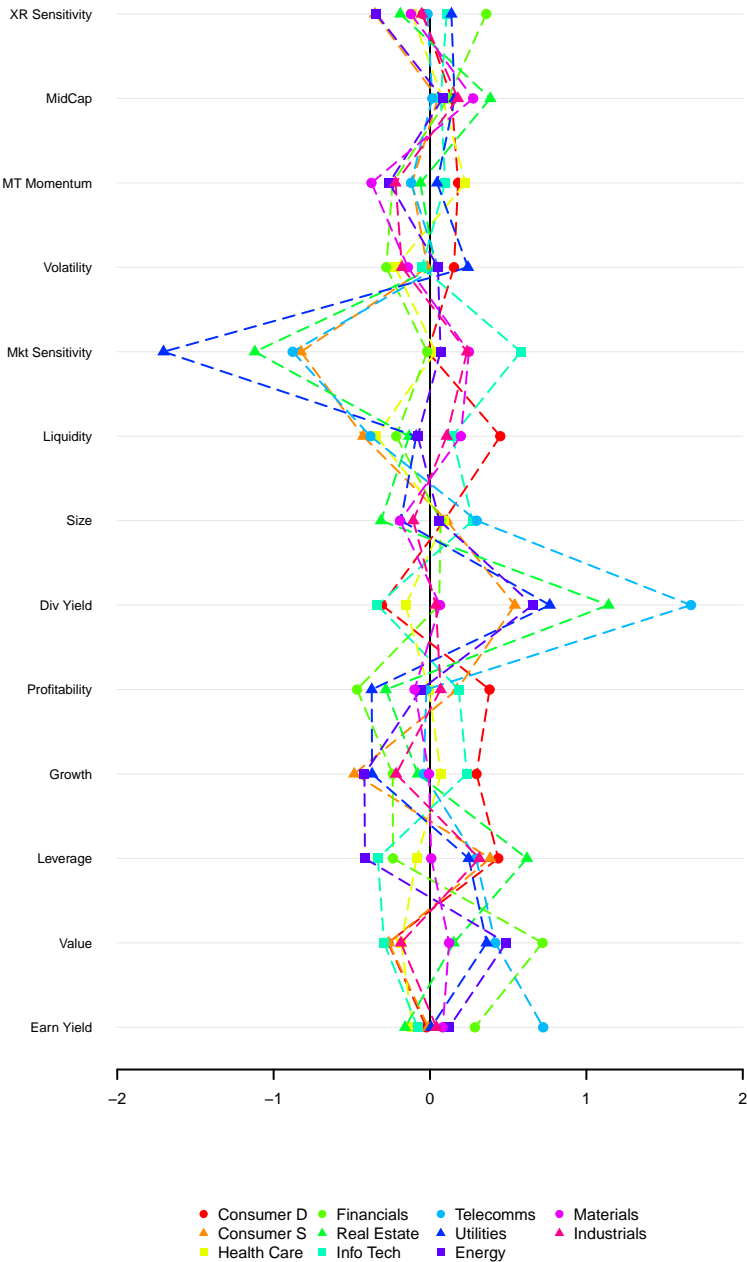
19. Russell 1000 GICS 2018 weights and % of risk



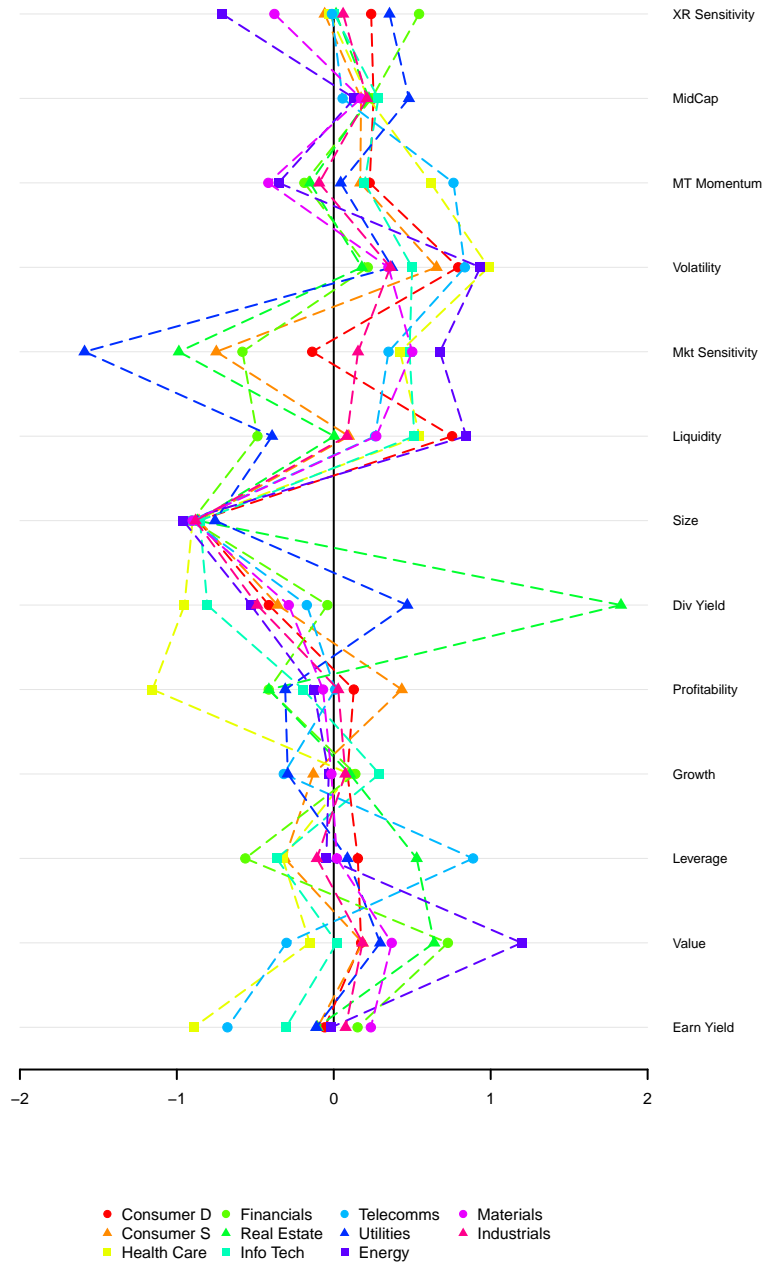
20. Russell 2000 GICS 2018 weights and % of risk



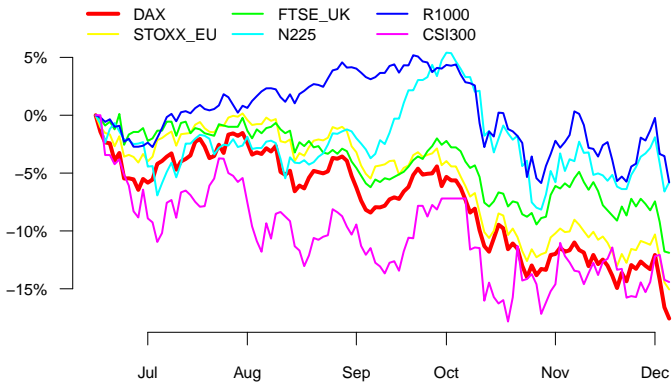
21. Russell 1000 sector style exposures



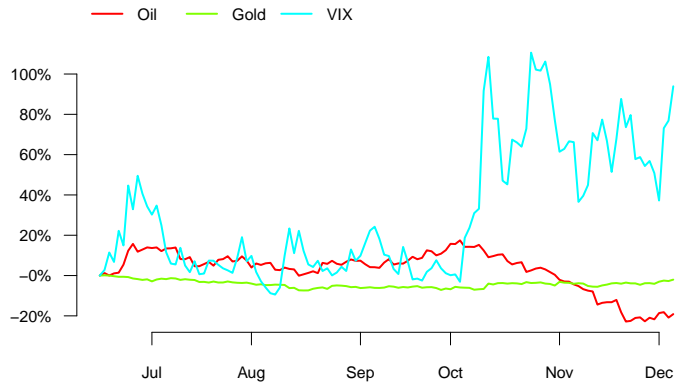
22. Russell 2000 sector style exposures



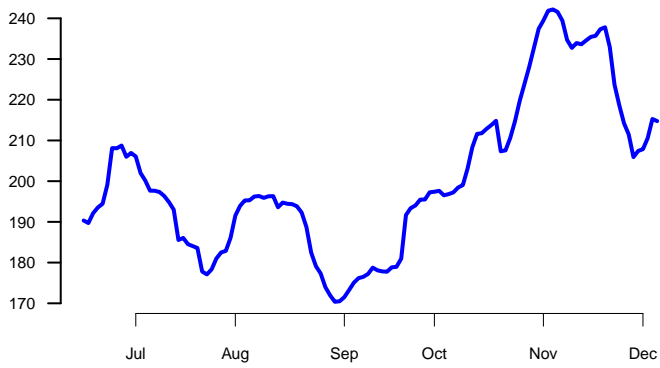
### 23. Returns for popular benchmarks



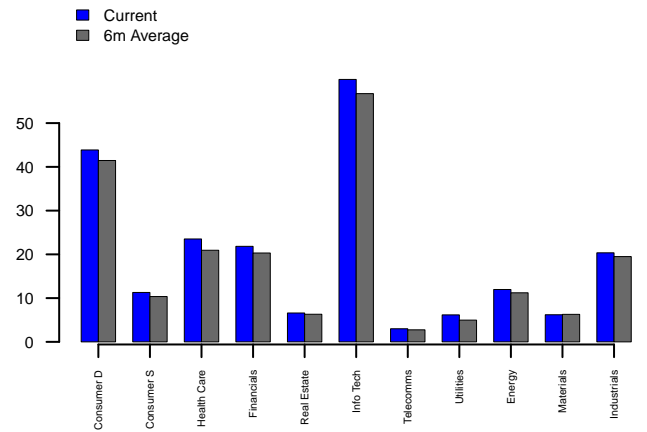
### 24. Returns for popular indicators



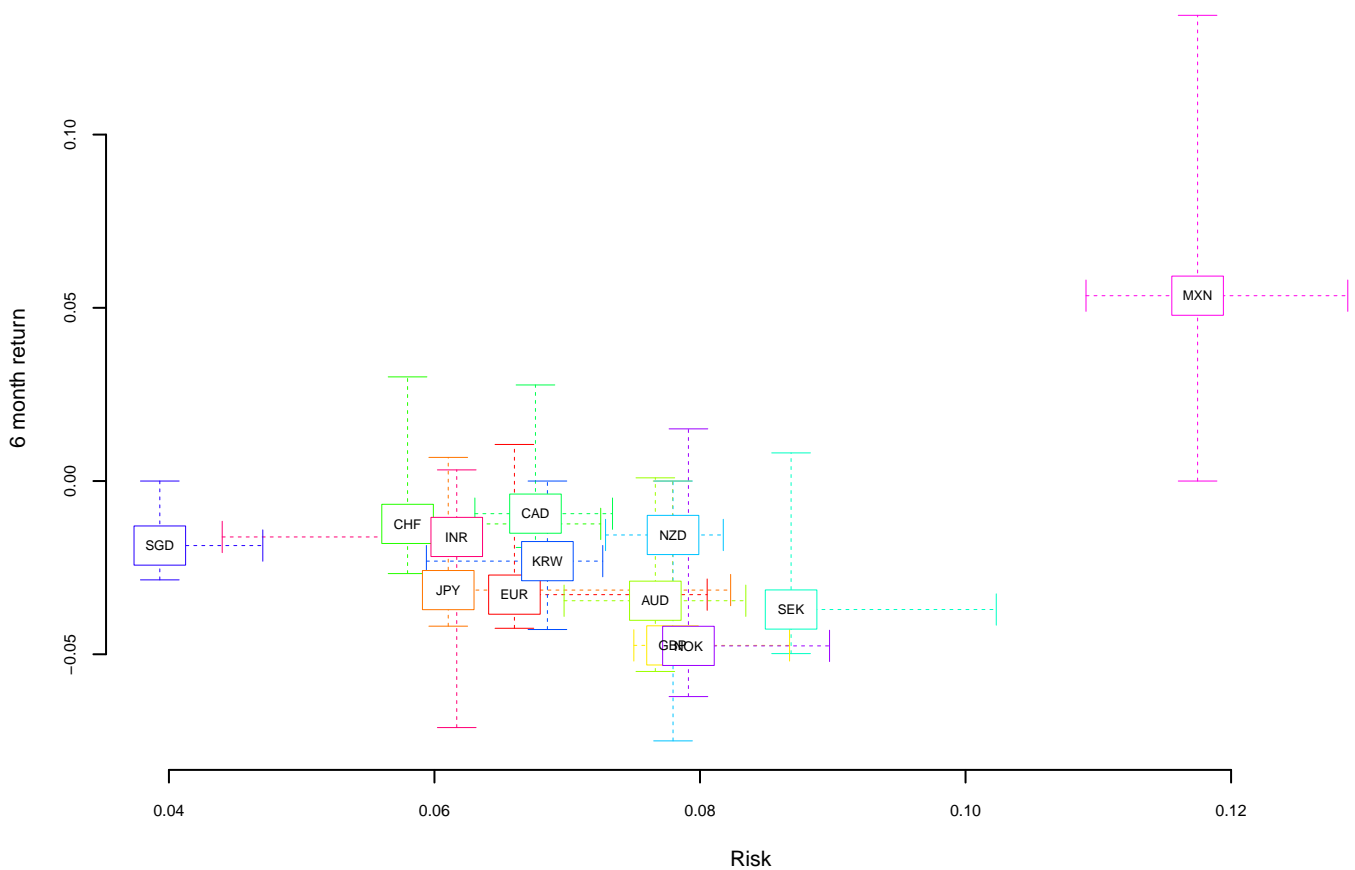
### 25. Russell 1000 rolling ADV (USD billions)



### 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

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