

# Risk Has Trended Down... So Should I Be Nervous?

**Presentation to QWAFAFEW**

Melissa R. Brown, CFA

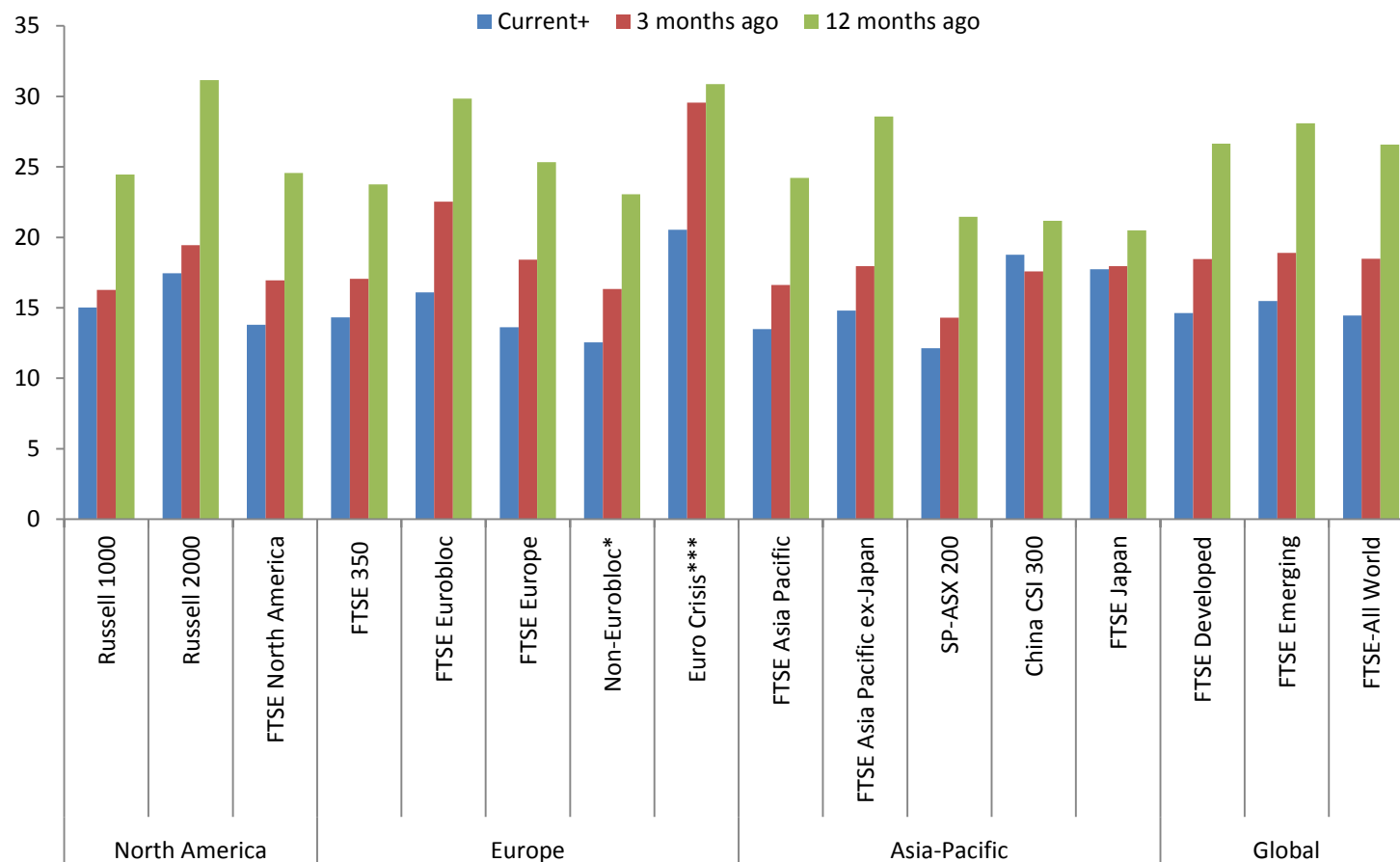
Senior Director of Applied Research, Axioma

January 8, 2013

# Agenda

- Risk fell dramatically throughout 2012, although it remained above historical lows
- Forecast differences from Axioma's four model variants were driven by lower short-horizon risk in the first half and lower statistical model forecasts in the second half
- Factor volatility – country, industry, currency, market – dropped in most regions, and correlations fell, as well
- Trading volume in 2012 was lower than average; perhaps investors are sitting on their hands?
- On a separate note, despite (or perhaps because of) interest in low volatility strategies, factor performance was worse than expected in 2012

# Predicted risk fell throughout most of 2012



+ Japan data as of 28 Dec 2012, all others as of 31 December 2012

\*FTSE Europe minus FTSE Eurobloc

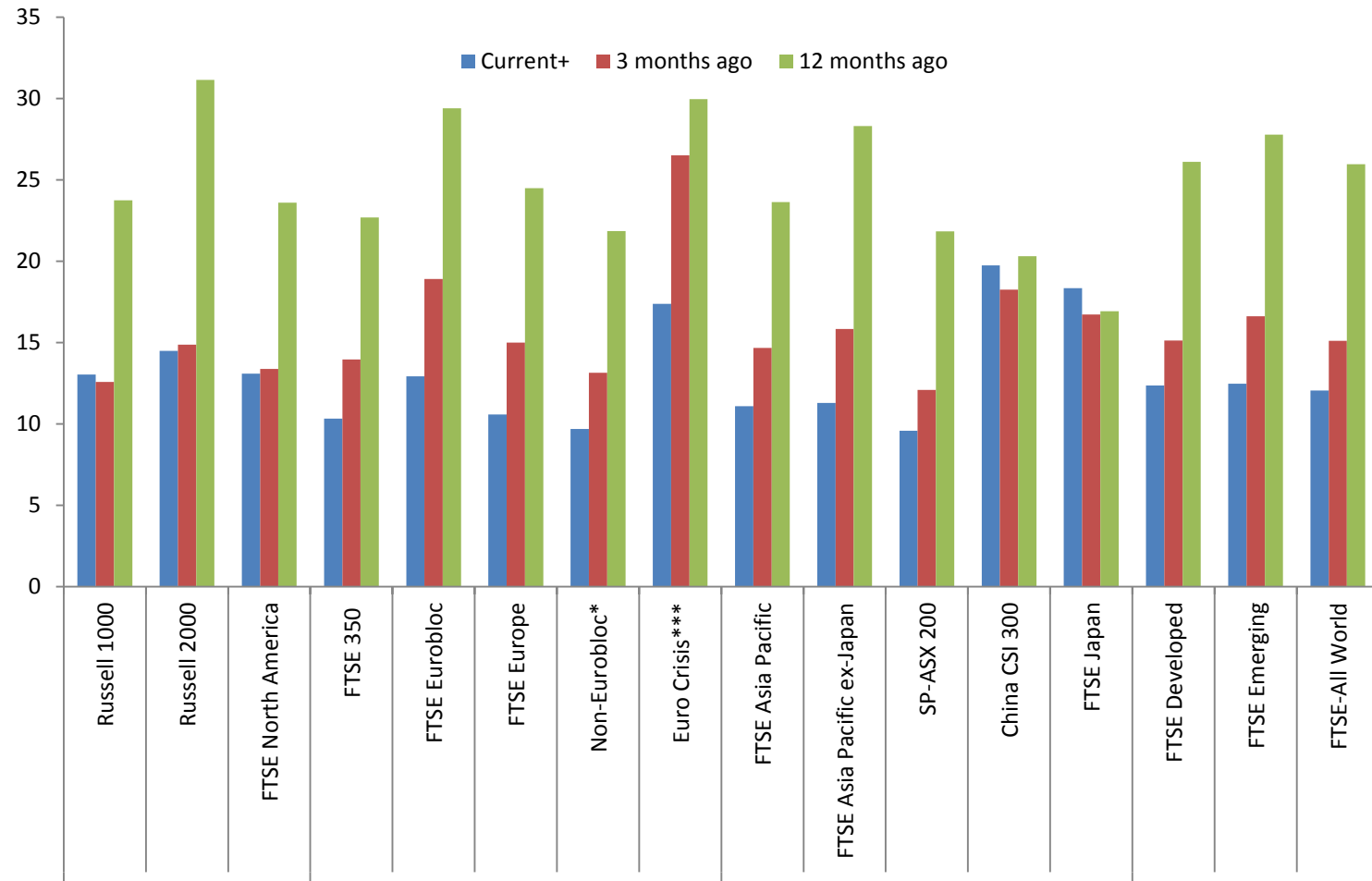
\*\*FTSE Developed Europe minus FTSE Eurobloc

\*\*\*Portugal, Italy, Ireland, Greece and Spain from FTSE Eurobloc

Source: FTSE, Russell Investments, Standard & Poor's, China Securities Index Company, Ltd, Axioma Inc.



# Short-horizon forecasts ticked up in China & Japan but otherwise remained well below levels of a year ago



+ Japan data as of 28 Dec 2012, all others as of 31 December 2012

\*FTSE Europe minus FTSE Eurobloc

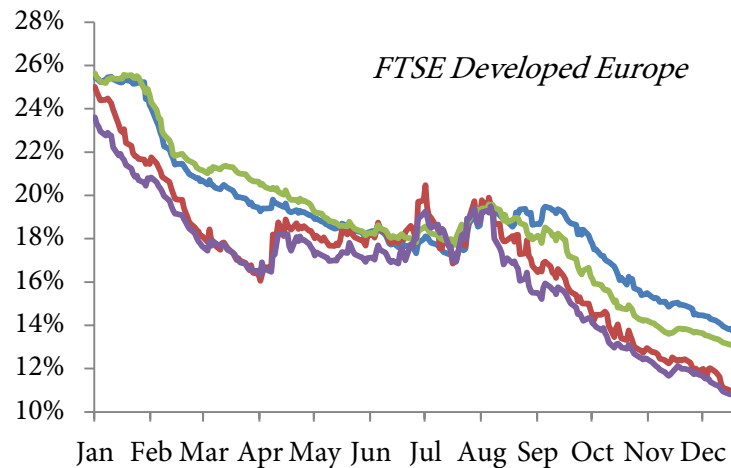
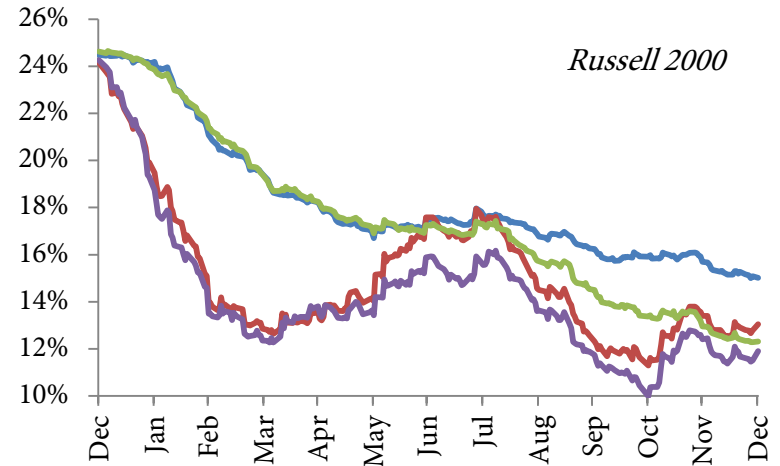
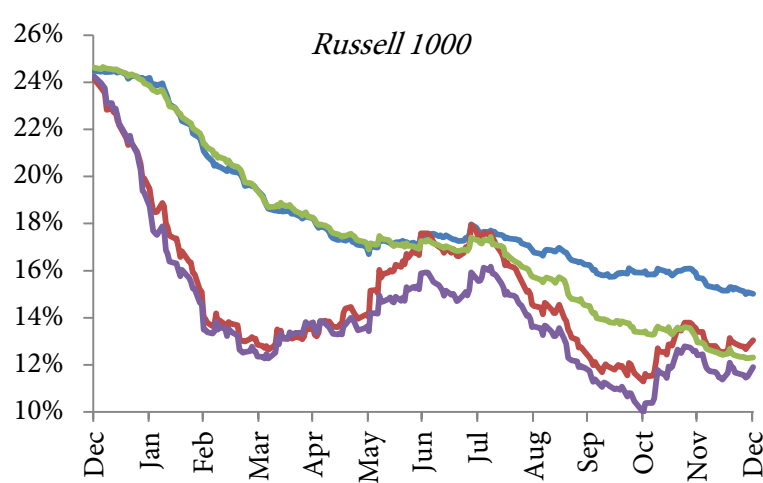
\*\*FTSE Developed Europe minus FTSE Eurobloc

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# Forecasts in Europe ended 2012 in line with US



— **Medium Horizon Fundamental**  
— **Medium Horizon Statistical**

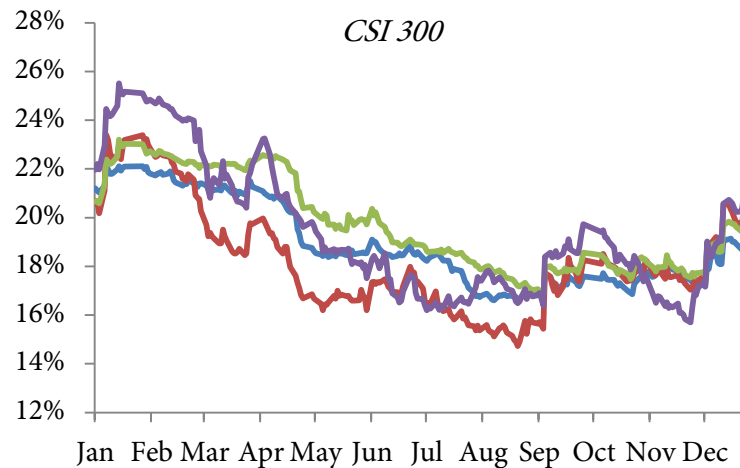
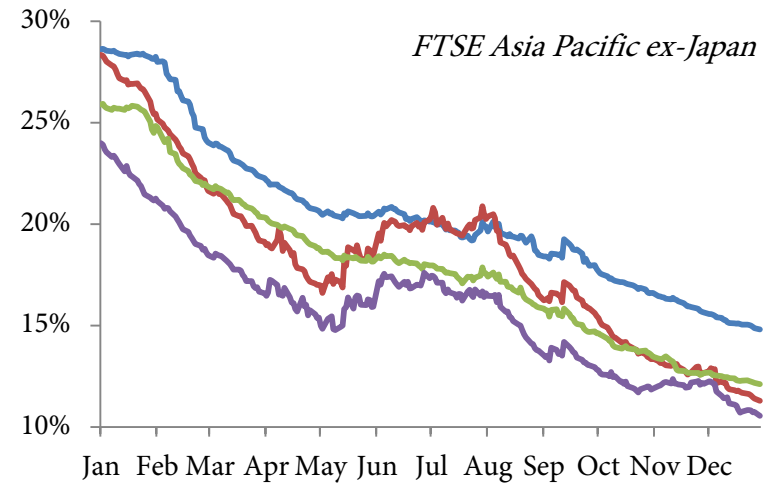
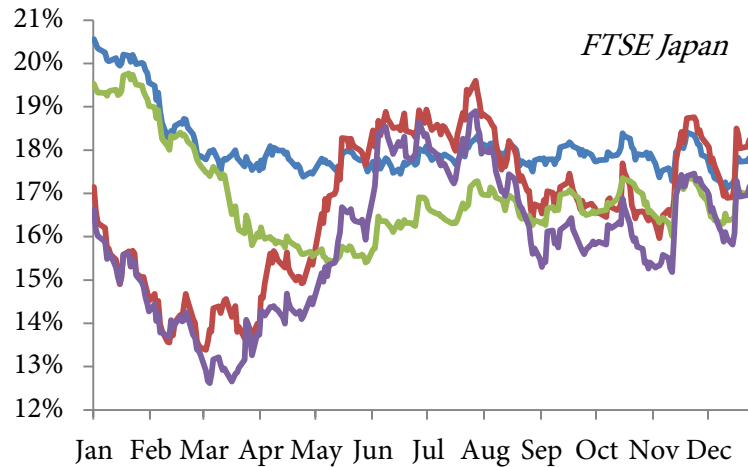
— **Short Horizon Fundamental**  
— **Short Horizon Statistical**

Source: FTSE, Russell Investments, Axioma Inc.

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# Japan and China were somewhat different



Source: FTSE, Russell Investments, China Securities Index Company, Ltd , Axioma Inc.

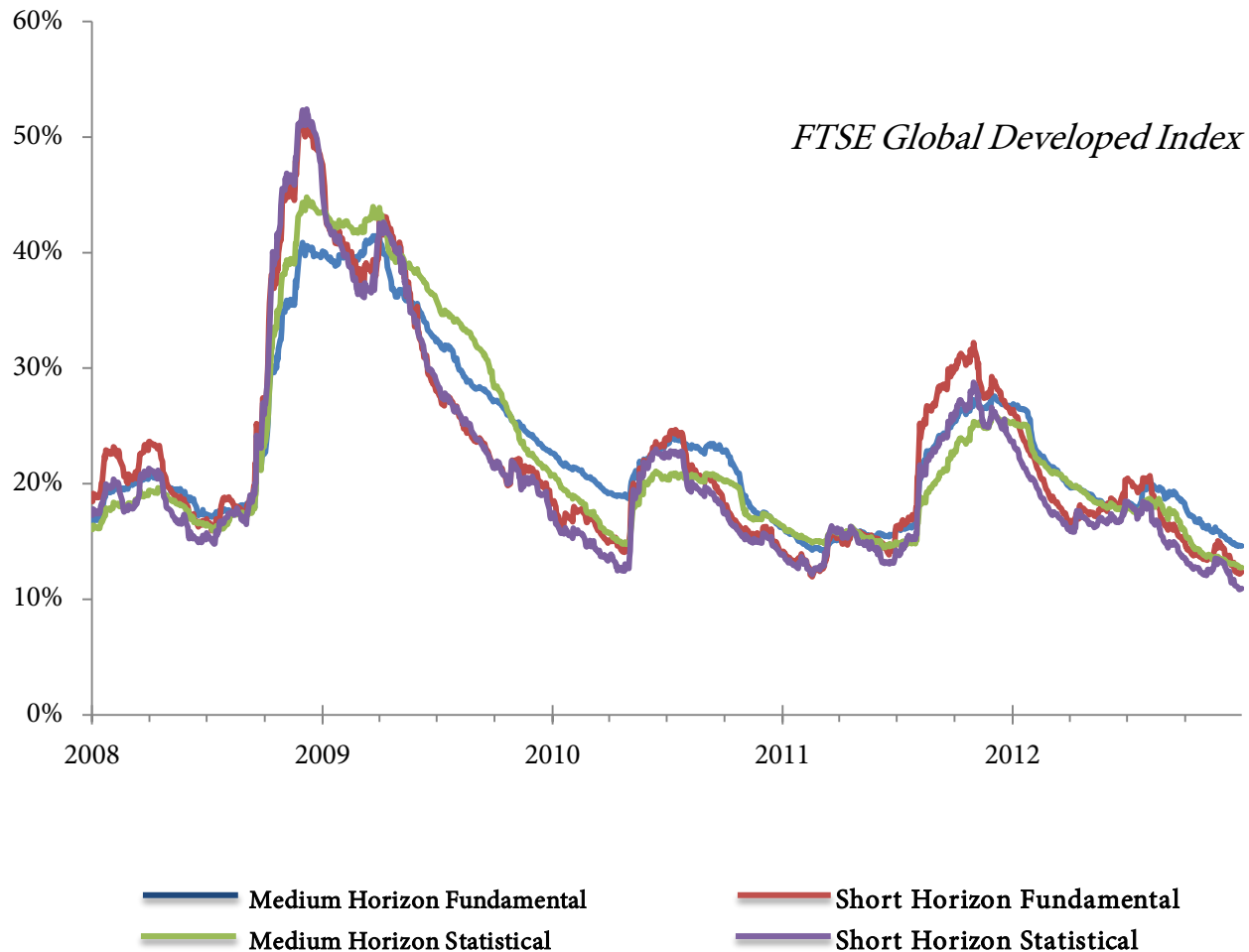
— Medium Horizon Fundamental  
— Medium Horizon Statistical

— Short Horizon Fundamental  
— Short Horizon Statistical



# Global risk was close to a 5-year low

And well below peaks of the Global and European financial crises

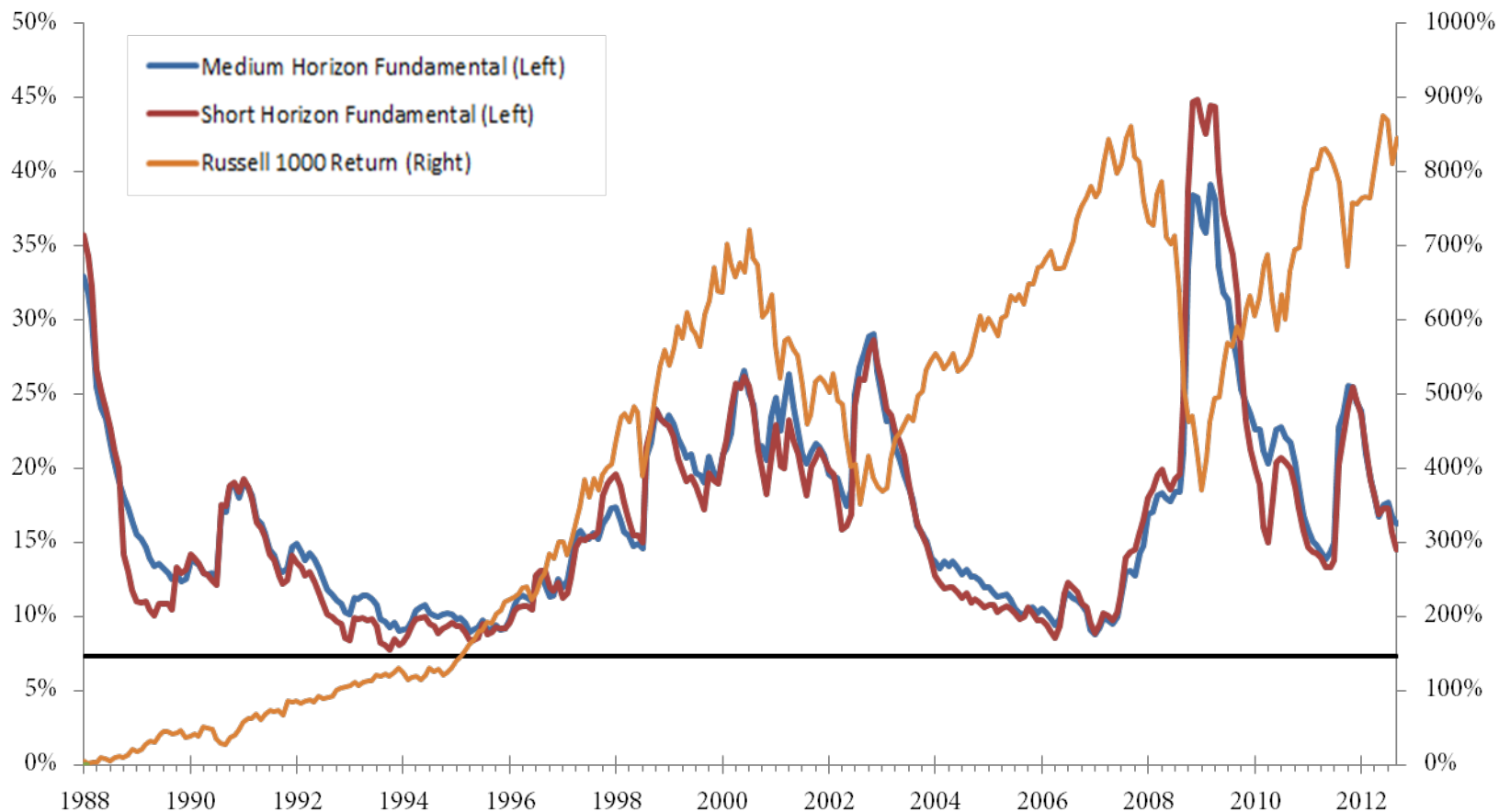


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# But it is not quite at a 25-year low (US)



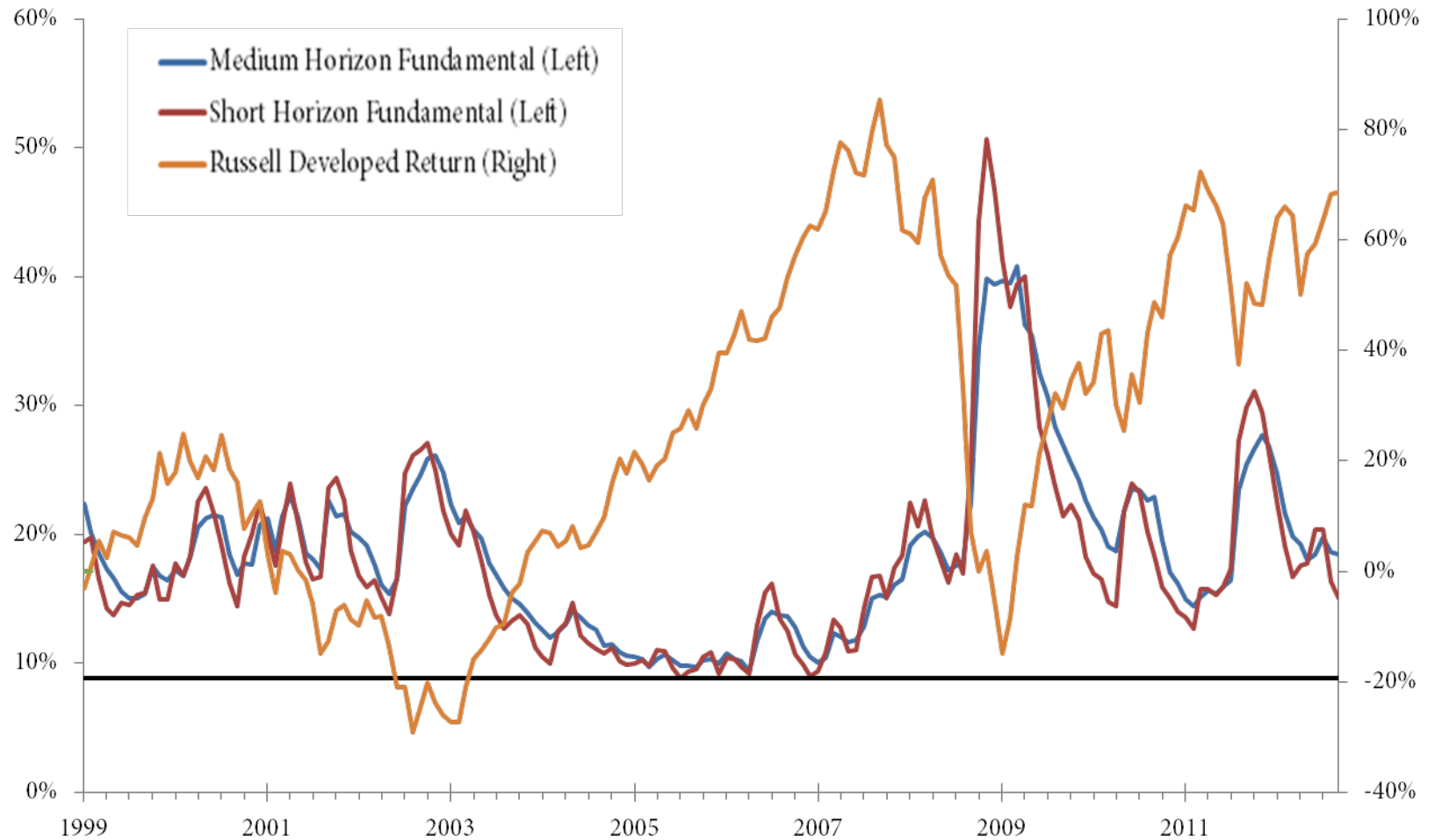
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# Global risk was lower in the mid-2000s



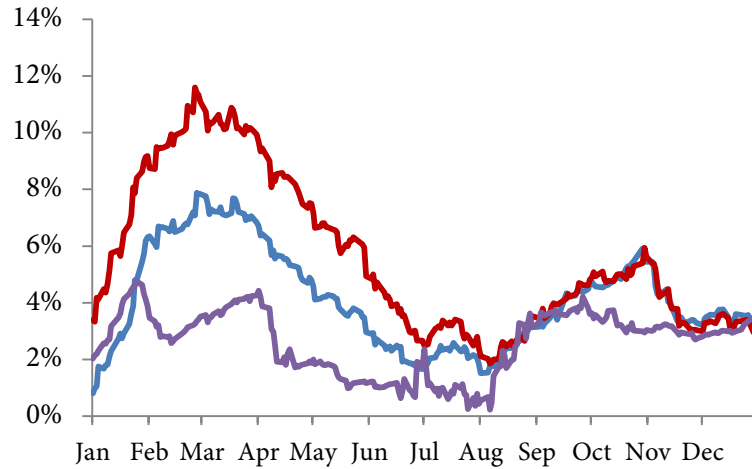
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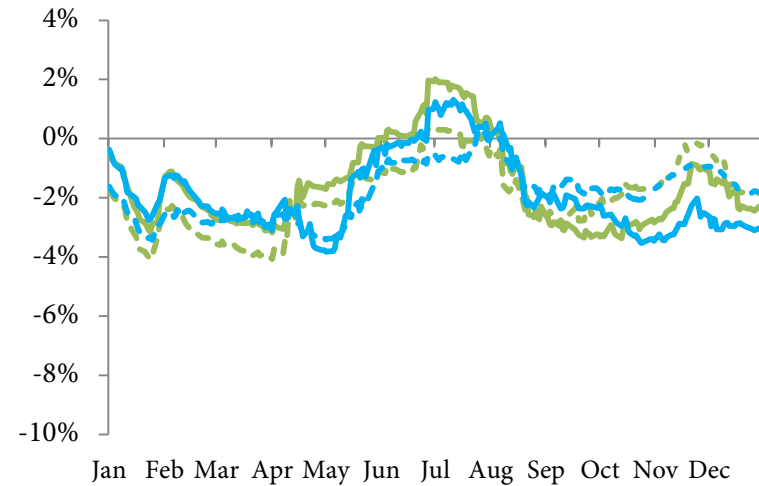
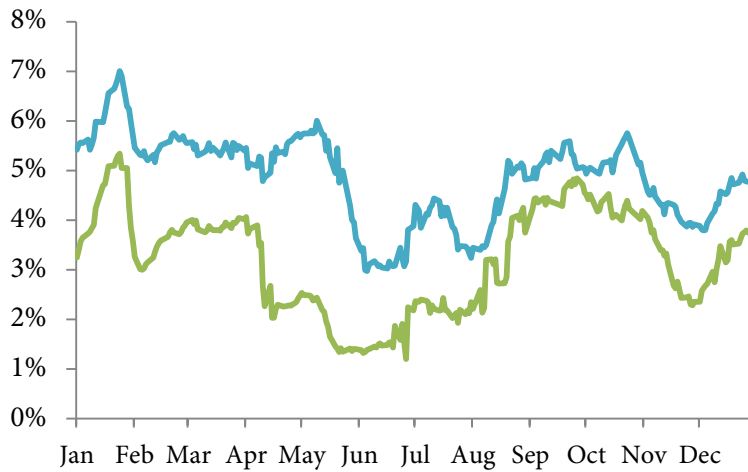
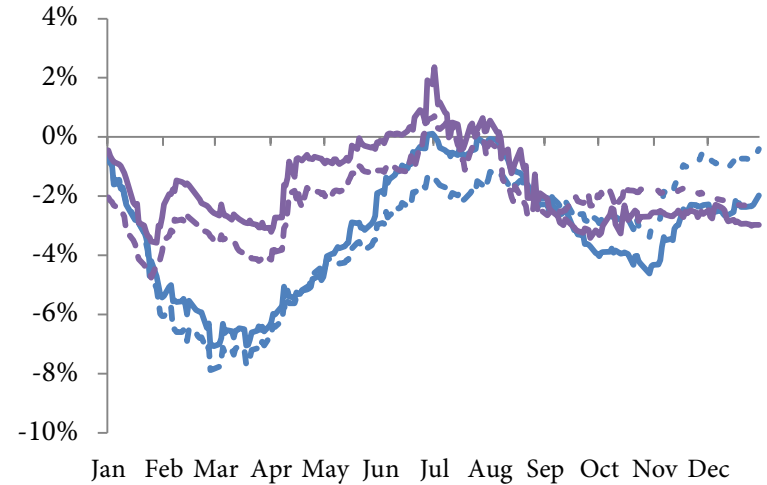


# Short vs. medium forecast drove first half disagreement

*Total Risk Spread*



*Short Horizon – Medium Horizon*



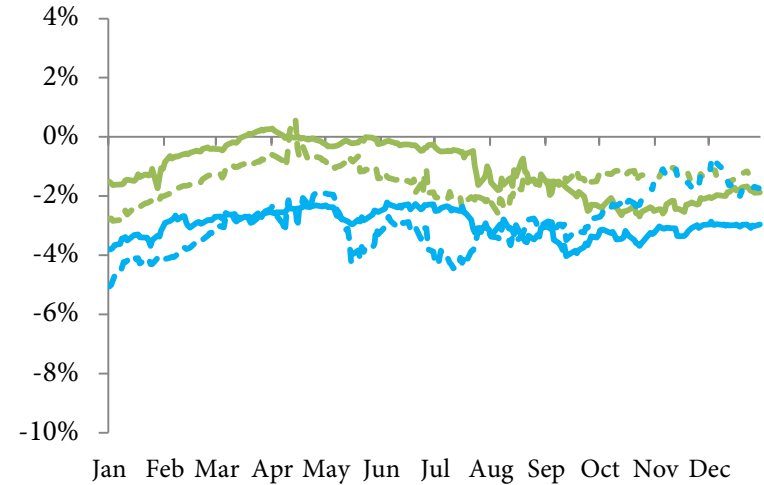
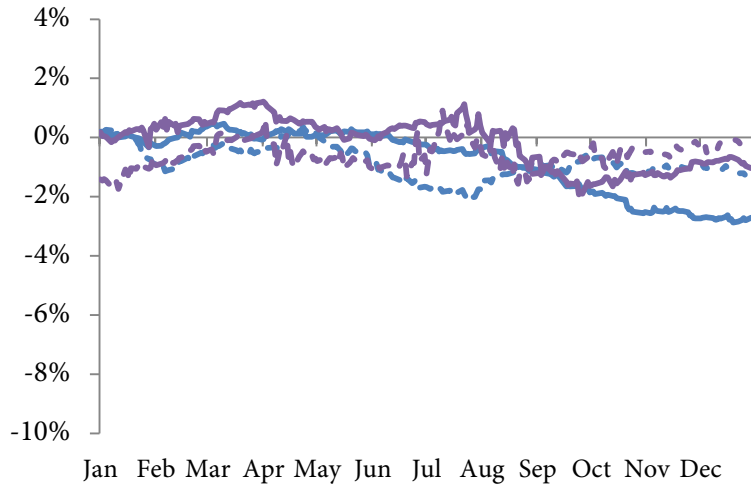
— Russell 1000      — Russell 2000      — FT SE Developed Europe  
— FT SE Developed      — FT SE Emerging

Solid line: Fundamental Models  
 Dotted line: Statistical Models



# Statistical & fundamental models diverged after July for US and Global

## Statistical - Fundamental



— Russell 1000 — FTSE Developed Europe — FTSE Developed — FTSE Emerging

Solid line: Medium Horizon

Dotted line: Short Horizon

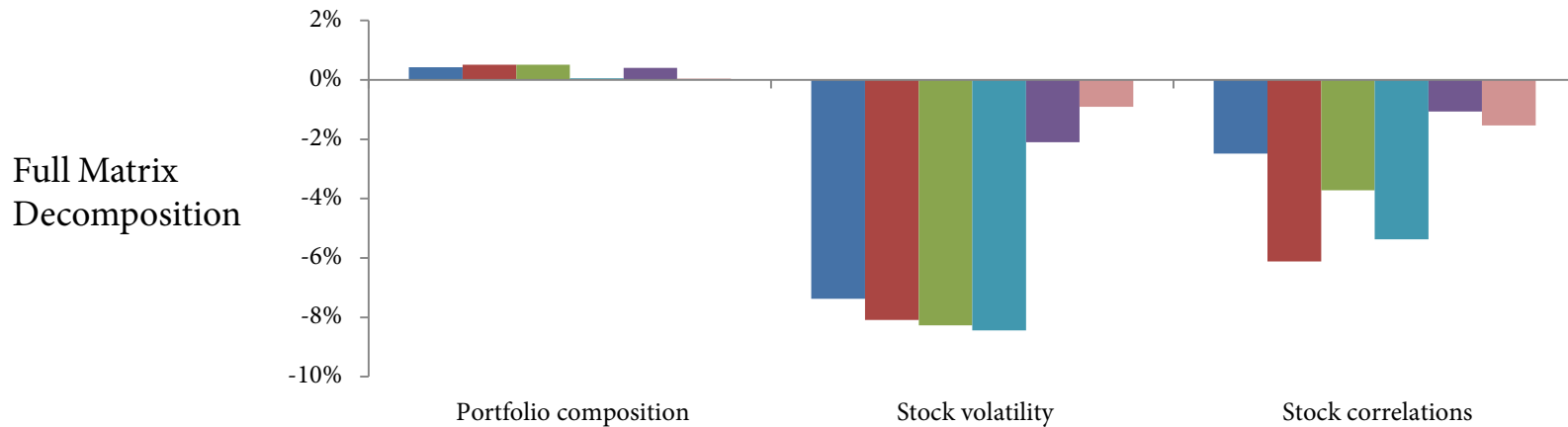
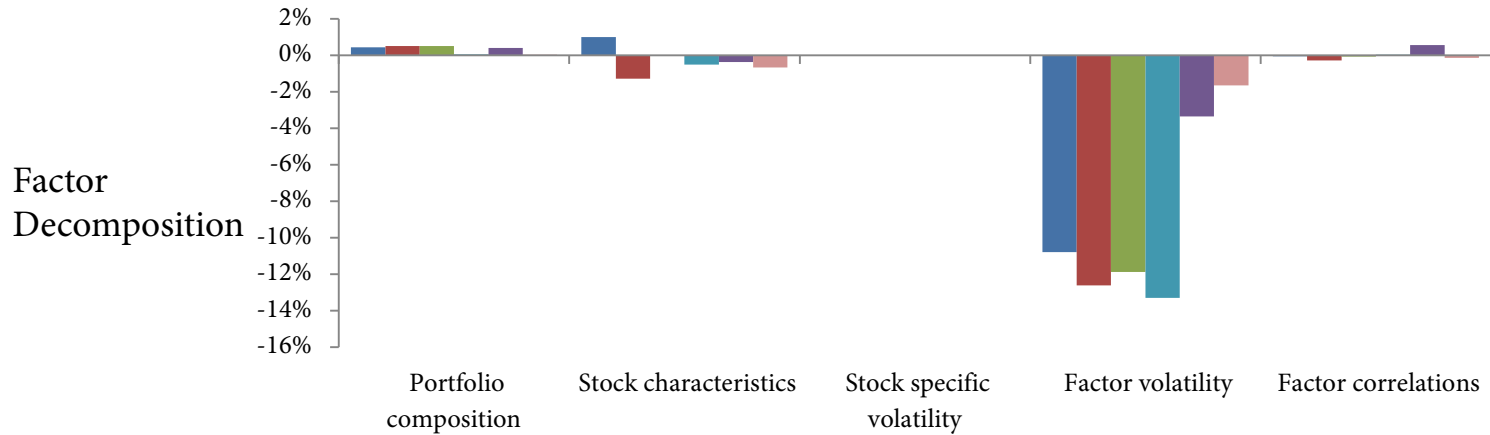
Source: FTSE, Russell Investments, Axioma Inc.



# Volatility and Correlation contributed to risk's drop

## Results in Japan and China were muted

■ Russell 1000 ■ Russell 2000 ■ FTSE Developed Europe ■ Asia ex-Japan ■ Japan ■ China

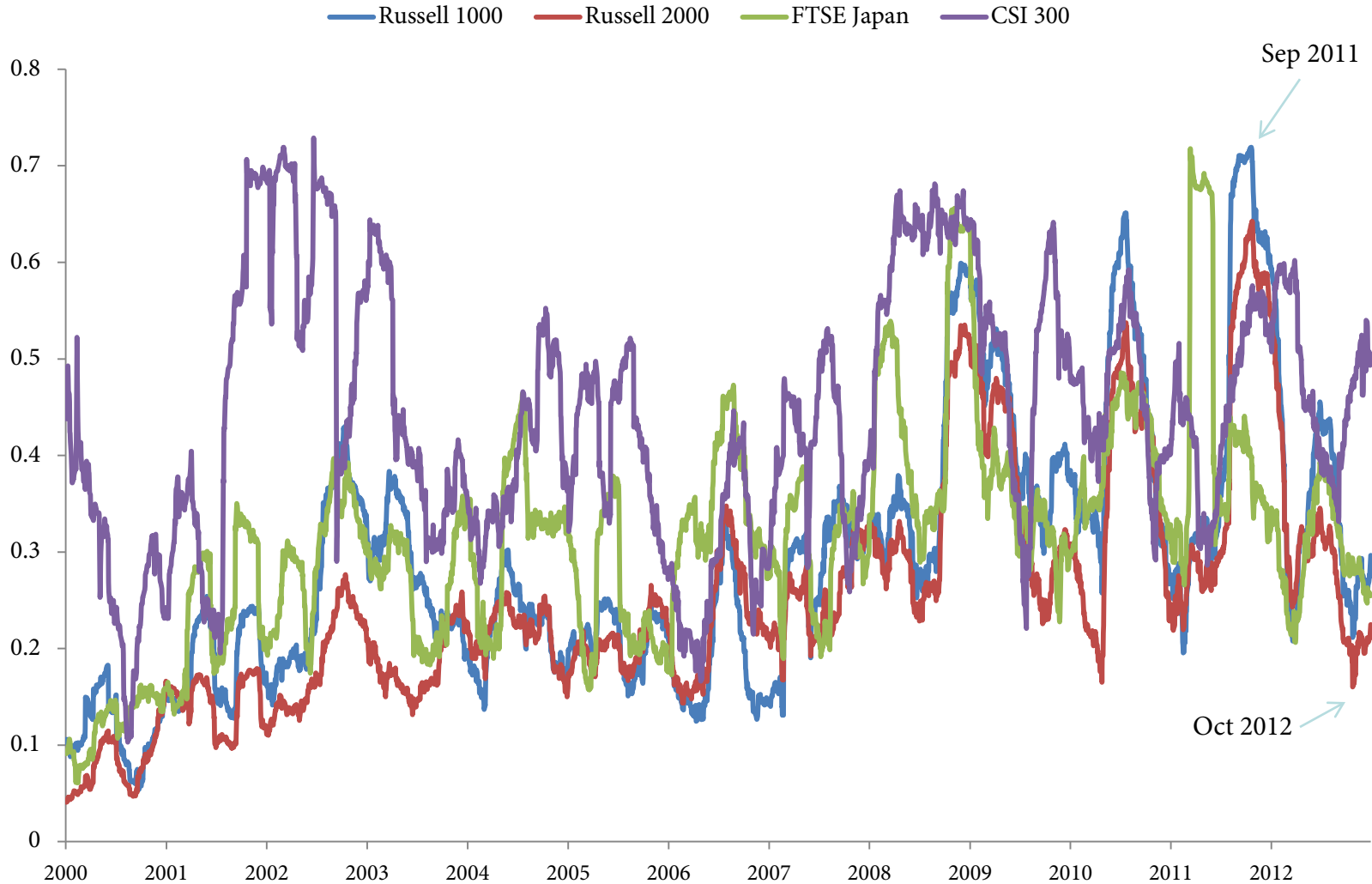


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# Single-country realized correlations have dropped, Except in China

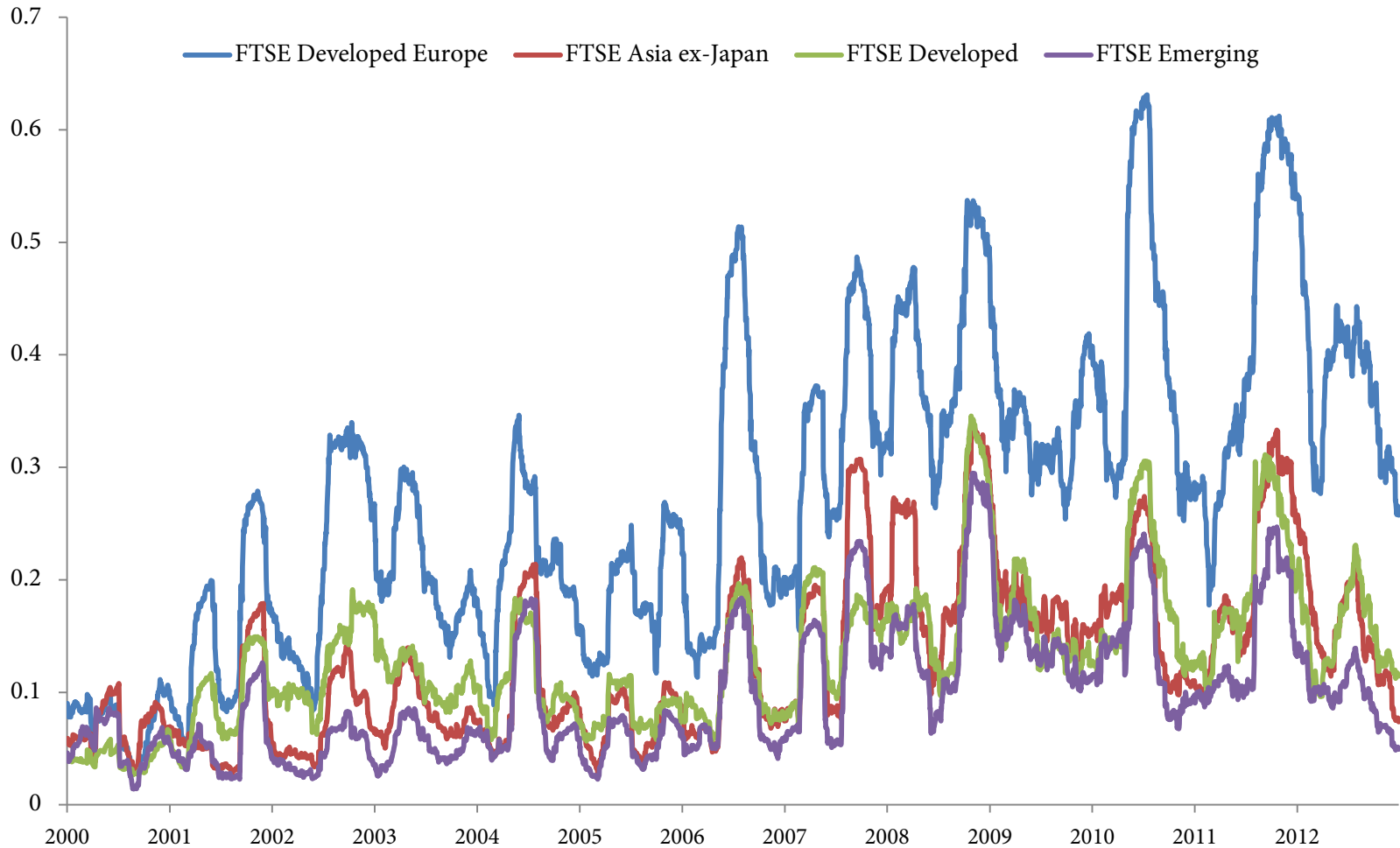


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# Multi-country benchmark correlations dropped too

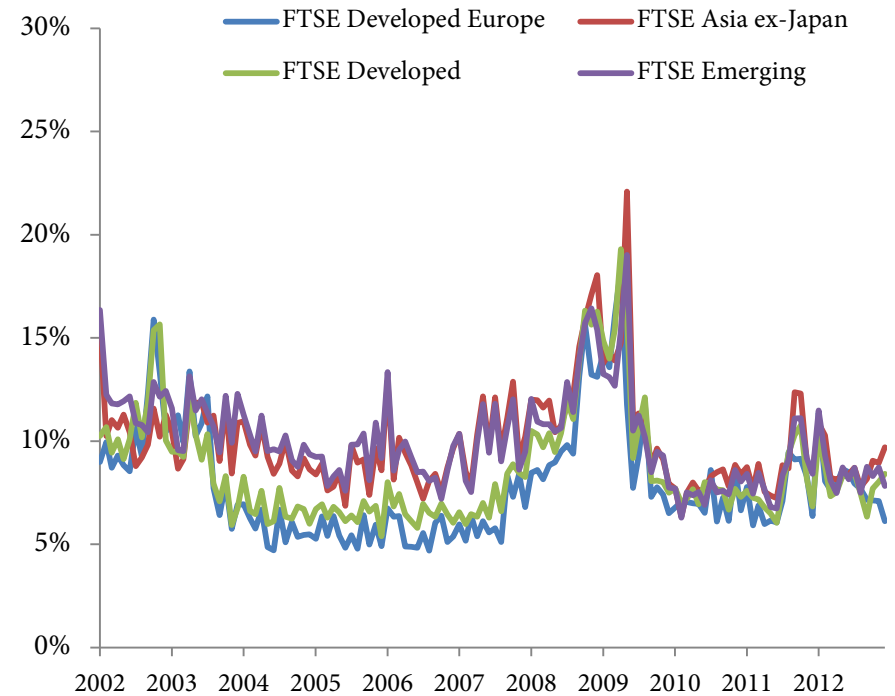
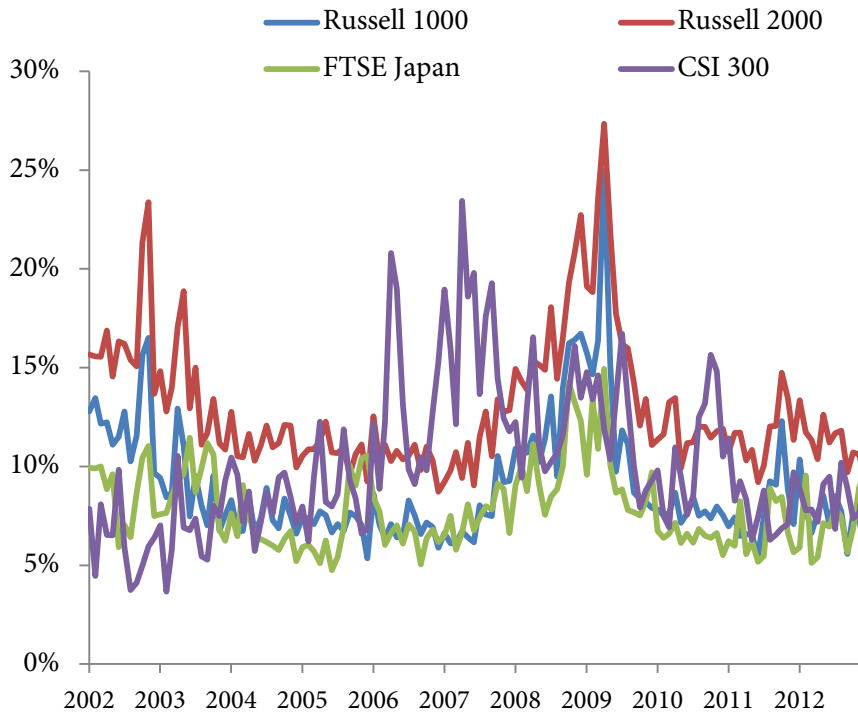


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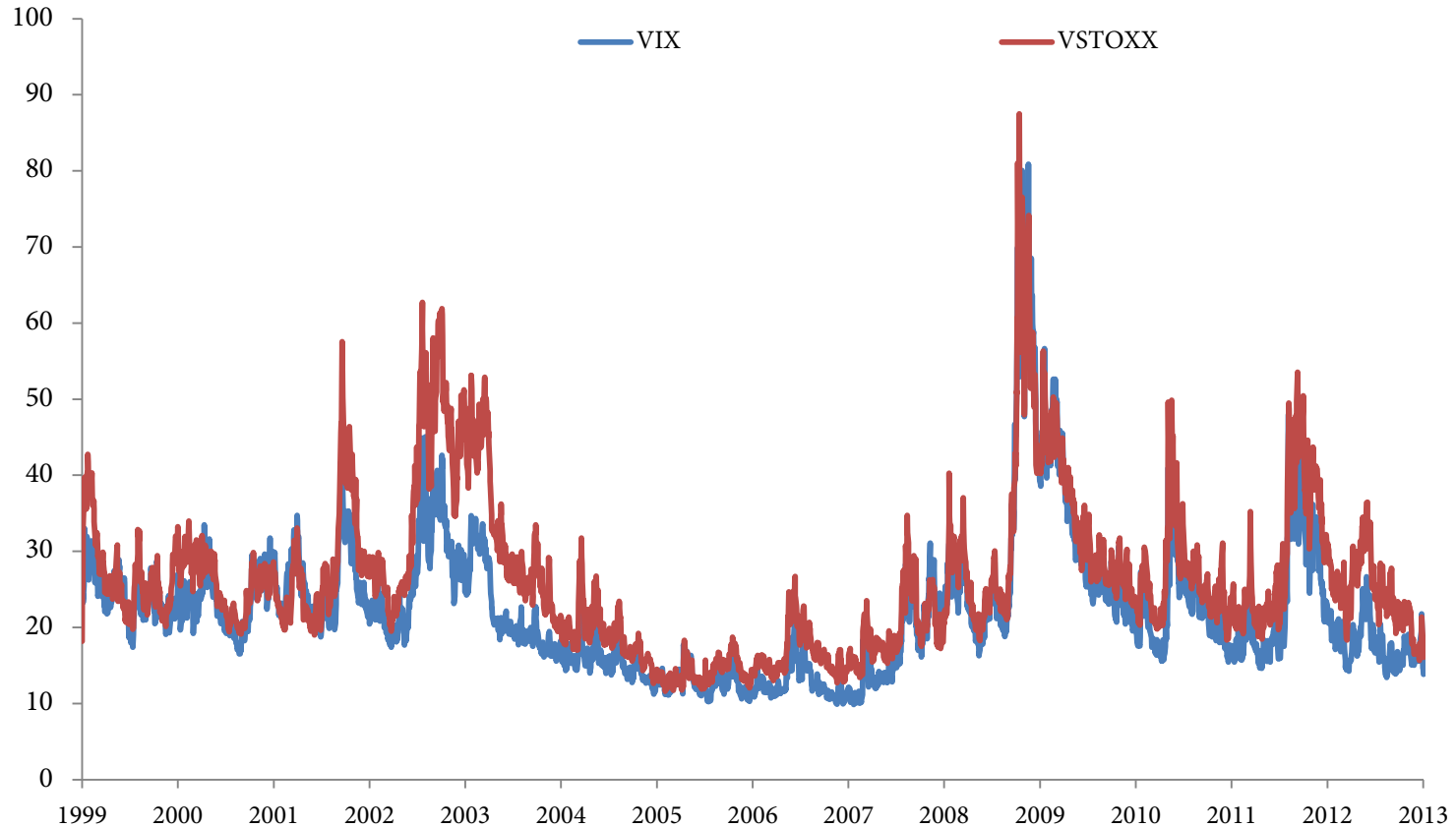
# And cross-sectional dispersion remains low



Source: FTSE, Russell Investments, China Securities Index Company, Ltd Axioma Inc.



# VIX and VSTOXX were also well below average



Source: Yahoo! Finance, Axioma Inc.

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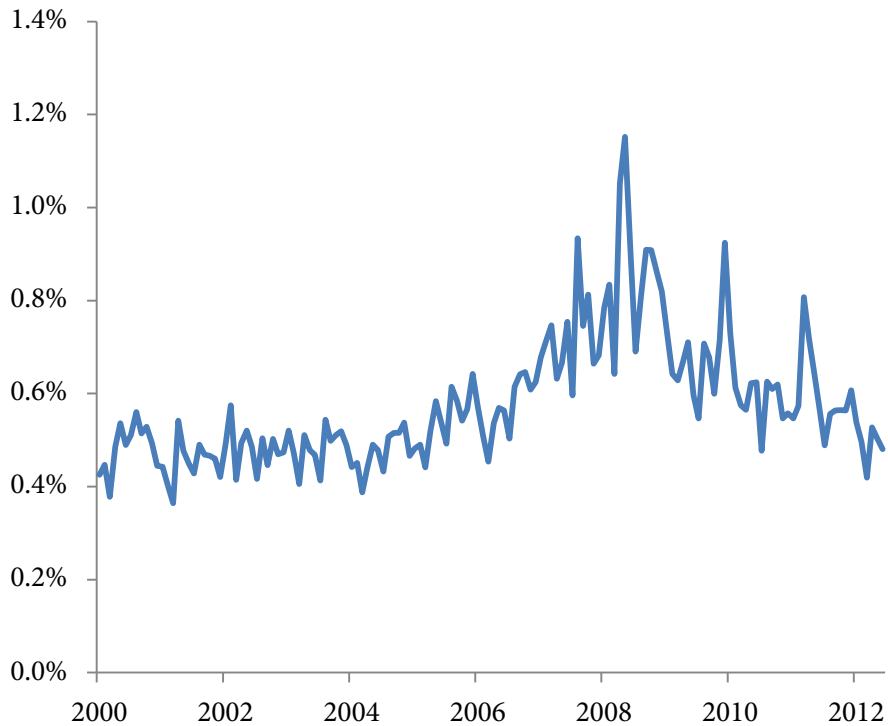
# Should we be worried risk will spike soon?

- On one hand, there is still a lot of uncertainty
  - Election over and fiscal cliff averted, but looming debt ceiling, many other issues
- But, all of these issues could already be baked into stock prices and hence are therefore no longer driving volatility
- The extreme uncertainty may have simply paralyzed investors and therefore volatility has declined - trading volume was extremely low for most of 2012
- But...
  - There is always something to worry about – 2013 concerns are not unique!
  - Statistical model results suggest there isn't something bubbling under the surface
  - Historically, risk has remained low for long stretches of time

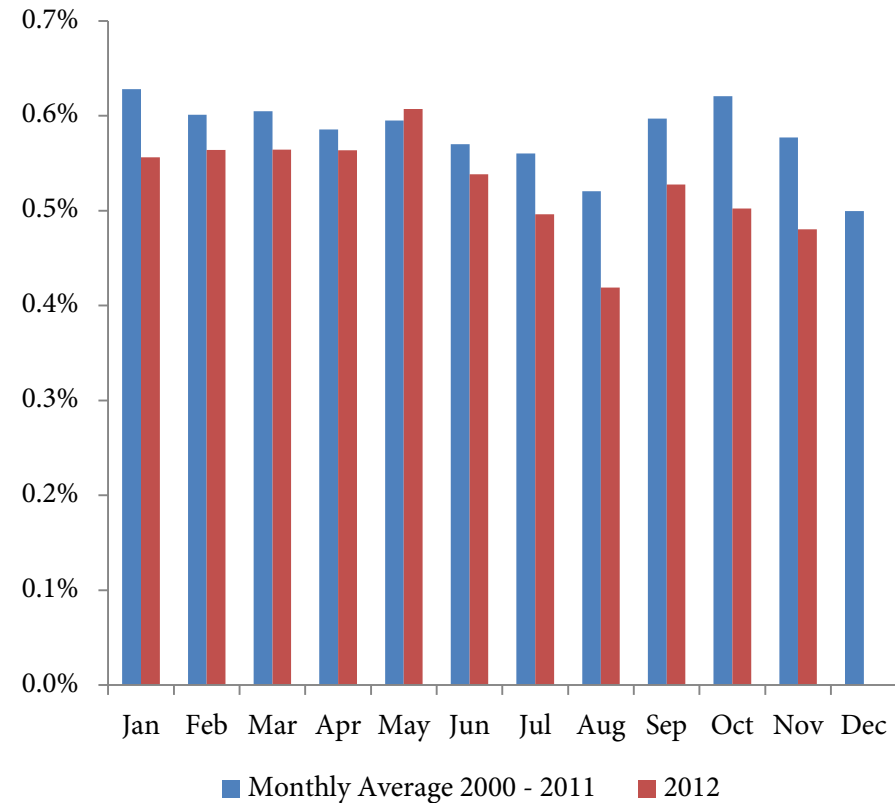


# Monthly volume has been lower than average

Average daily traded value  
FTSE Global Developed Index  
% of Total Market Cap



Monthly average volume  
% of Total Market Cap



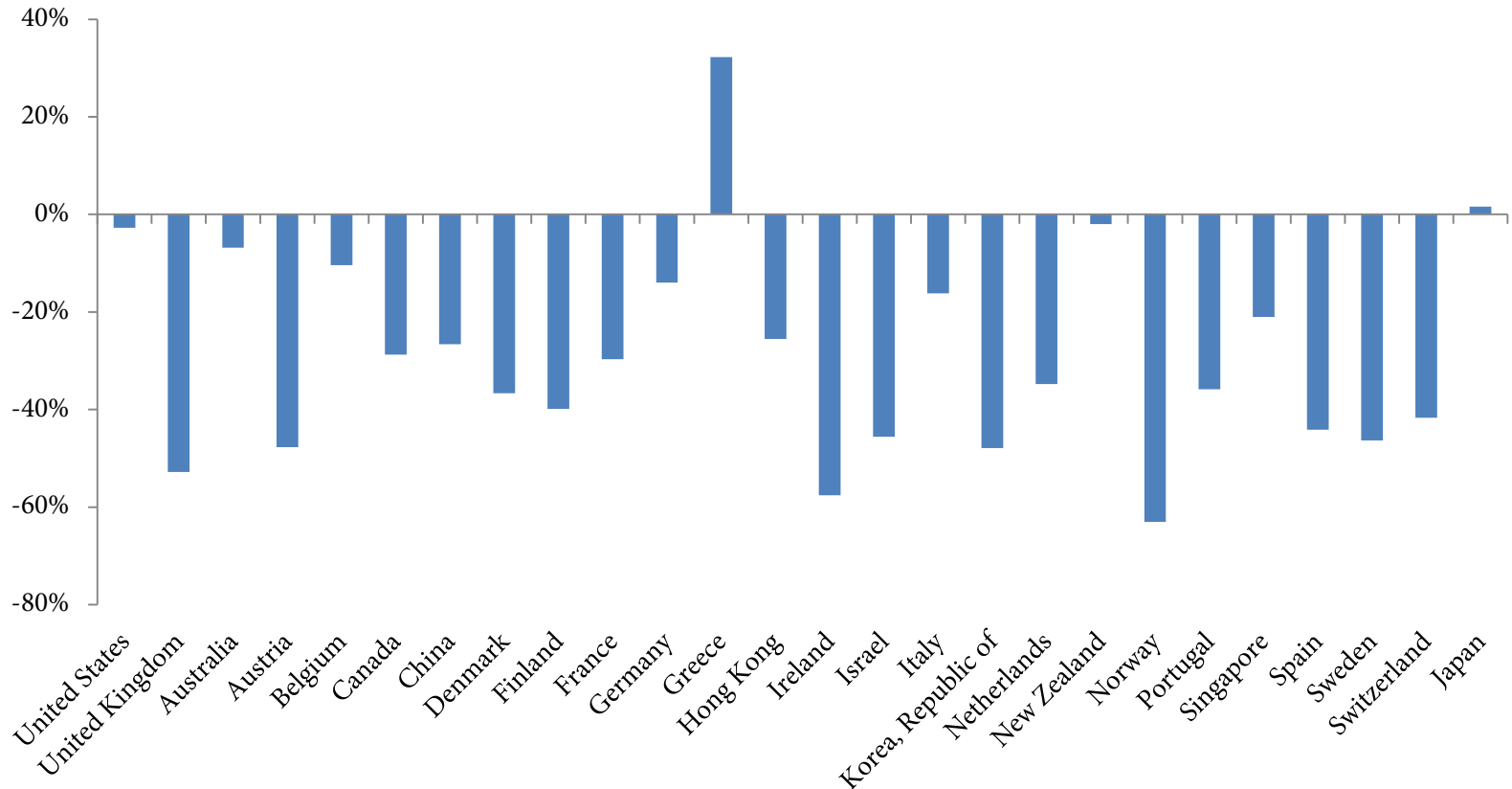
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# Volume was lower in most developed countries Last 3 months vs. long-term average

*Current liquidity relative to history*

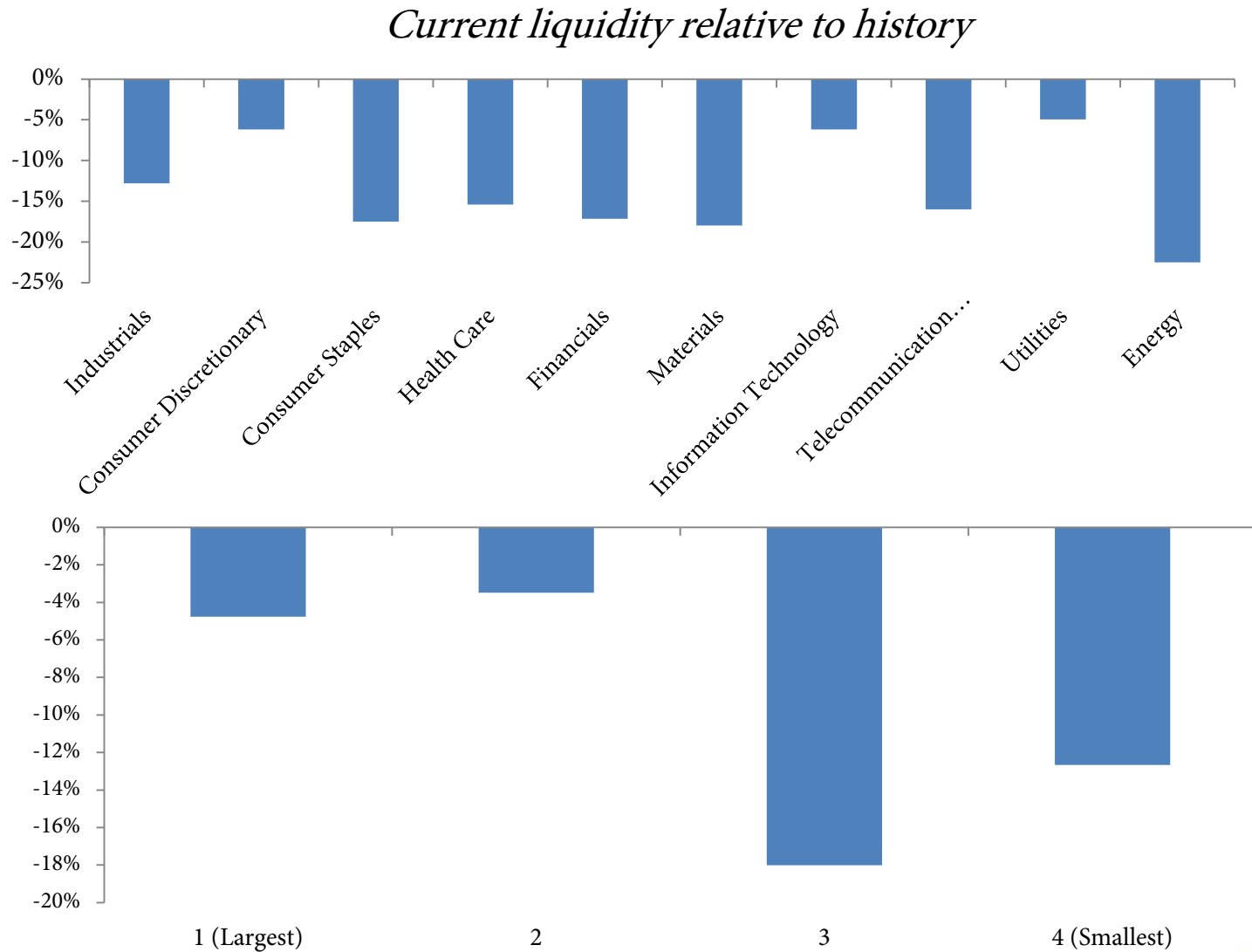


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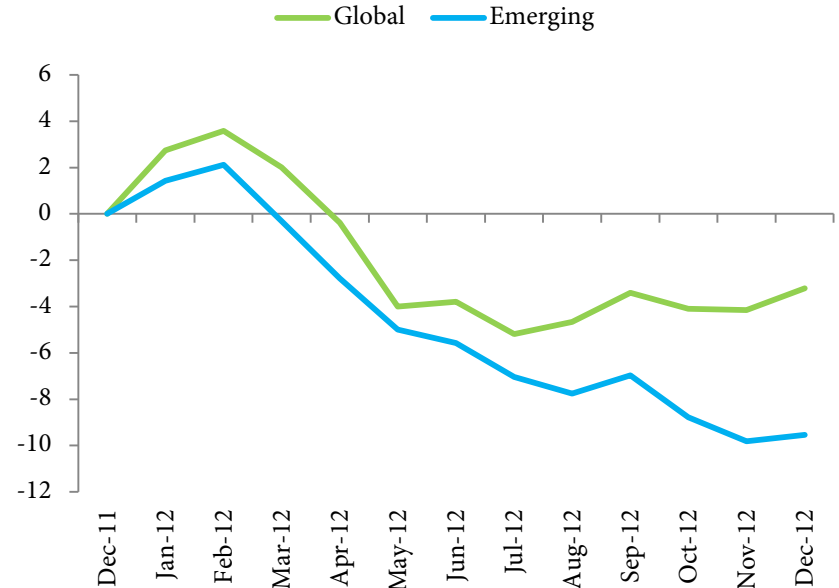
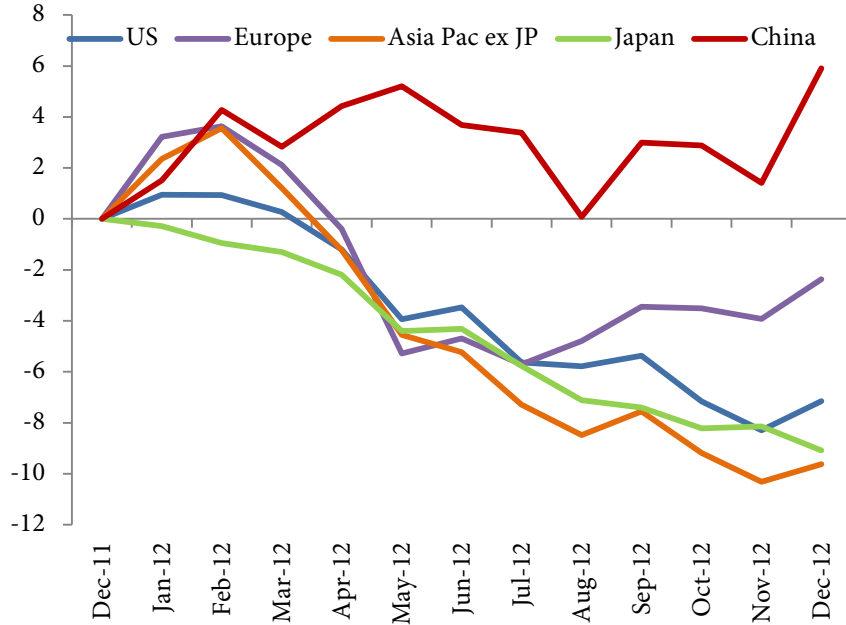
# All sectors and size quartiles had lower volume Last 3 months vs. long-term average



Source: FTSE, Axioma Inc.



# Comment on low volatility strategies



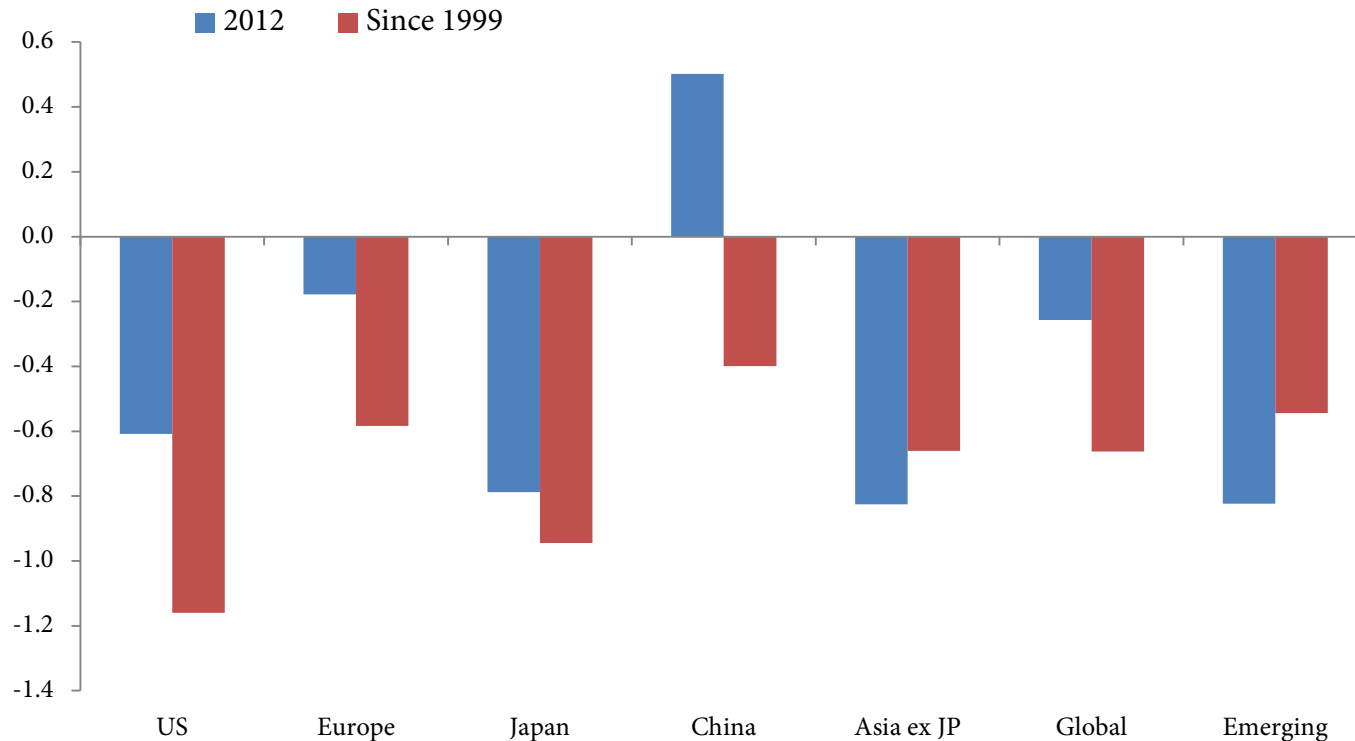
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# Volatility's return: US & Europe lower than average

*Axioma Volatility factor average monthly return*



Source: Axioma Inc.

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# Summary

- Risk declined substantially in 2012, especially at the short horizon
  - Decrease was driven by lower volatility and correlation
  - Short horizon was falling faster than medium in 3Q, but no longer
  - Negative statistical-fundamental spread suggests markets aren't picking up a brewing issue
- Low realized correlation suggests stocks are less tied to macro themes
- Dispersion is related to correlation, but also affected by volatility
  - It is low relative to historical averages
  - It is more important than correlation to fundamental managers' ability to add value
- Global trading volume was low for most of 2012 – perhaps investors were waiting out the storm
- Low volatility strategies may have struggled a bit at the end of 2012
- *Risk may finally be settling down after the financial crisis!*

