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What's Up with Equity Correlations? They're Down…and Factor Volatility Is to Blame

Using Axioma's Risk Models to Explain the Recent Surge in Equity Correlation

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By Anthony Renshaw, PhD and Anureet Saxena, PhD
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1. Introduction

Equity correlations have dropped significantly after soaring to all-time highs between March and July 2010. Predictions of equity correlations derived from Axioma's Robust Risk Models reflect these recent correlation changes accurately. Short-horizon risk models have tracked the recent decline in asset-asset correlations closely, while medium-horizon risk model correlations are declining according to a longer, less reactive time horizon.

Examination of the drivers of risk-model-predicted correlation shows that the abrupt changes in asset-asset correlations were driven almost entirely by changes in industry volatility. Although all industry volatilities surged in mid 2010, the Insurance industry and the Financial sector in general appear to have made the largest contributions to the changes in asset-asset correlation.

Although industry volatilities have spiked in the past (most notably between 2000 and 2002), previous spikes did not produce the large asset-asset correlation swings witnessed this past year. This difference may be attributable to industry-industry correlations. Since 2007, the minimum industry-industry correlation within Axioma's risk models has risen from -0.2 to +0.5 today. *Currently, no US industries are uncorrelated.* As a result, instability within one industry (Insurance, for example) can drives lead to instability within other industries, which makes changes in asset correlation more severe than they have been in the past.

At the moment, correlations appear to have returned to pre-crisis levels. However, industry-industry correlations remain high. This suggests surges in asset-asset correlation may represent a new market norm.

2. Cross-Sectional Asset-Asset Correlations Have Declined Sharply

Cross-sectional equity correlations climbed to all time highs in all markets last year. Observers wondered if these new highs represented a permanent change in the market—one that might fundamentally alter approaches to portfolio management—or if we were simply witnessing a short-term "bubble" that would revert relatively quickly to lower correlation levels. In a November 2010 research piece[1], Axioma noted that the high levels of correlation were consistent with a longer term trend of steadily increasing equity correlations that had been taking place for years.

Cross-sectional correlations have dropped significantly in all markets since September 2010, and current cross-sectional correlations are currently very low. This suggests that we have witnessed an equity correlation bubble has now "popped."

Figs. 1 to 5 report historical realized, asset-asset correlations for index constituents from several different markets: the US market (Fig. 1), the global market (Fig. 2), the UK market (Fig. 3), and the European and Asia-Pacific markets (Fig. 4), and the Emerging market (Fig. 5). In each graph, for each month and each market, we compute all possible asset-asset, 60-day, forward realized return correlations. For example, if an Index has 1000 assets, then there are 1000 × 999 / 2 = 499,500 possible asset-asset pairs. We compute all of these correlations, and then calculate the average correlation for each day and market. The light blue error bars indicate plus/minus one standard deviation.

Since we report 60-day forward realized correlations, the last data point shown on these graphs is 9/30/2010, which utilizes the realized returns through the market close on 12/30/2010. 60-day correlations have not risen in the four weeks since then.

Figure 1 shows the average realized correlation across all asset-asset pairs for the US market using the Russell 1000 and Russell 2000 constituents. The two dashed red lines indicate the all-time highest realized correlation and the lowest correlation since August 2008. These lines provide a visual reference for comparing recent highs and lows against historical values.

[1] "Is This An Equity Correlation Bubble", available at http://www.axiomainc.com/downloads/EquityCorrelations_20101116.pdf

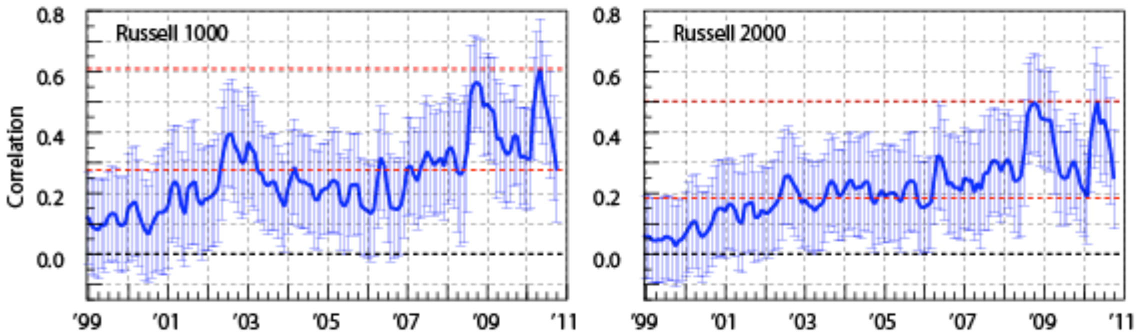

Figure 1. The average asset-asset 60-day forward return correlation for two US markets: the Russell 1000 Index (left), and the Russell 2000 Index (right). The red lines indicate all-time high and post-crisis low correlations.

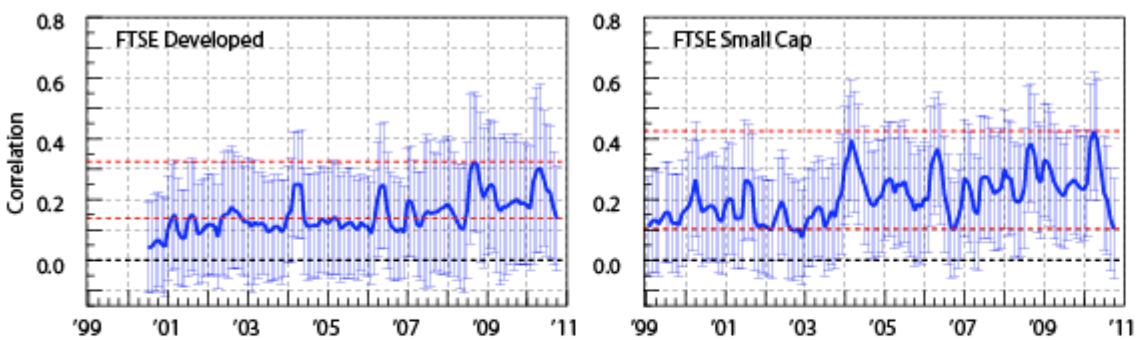

Figure 2. The average asset-asset 60-day forward return correlation for two global markets: the FTSE Developed Index (left), and the FTSE Small Cap Index (right).

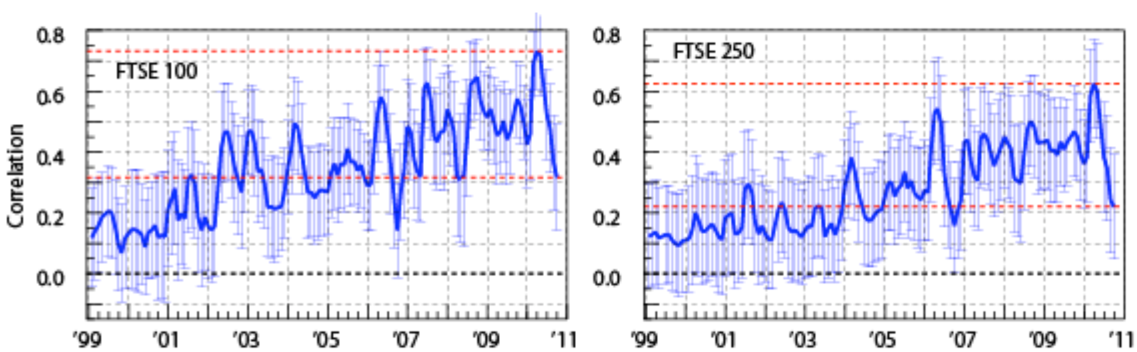

Figure 3. The average asset-asset 60-day forward return correlation for two British markets: the FTSE 100 Index (left), and the FTSE 250 Index (right).

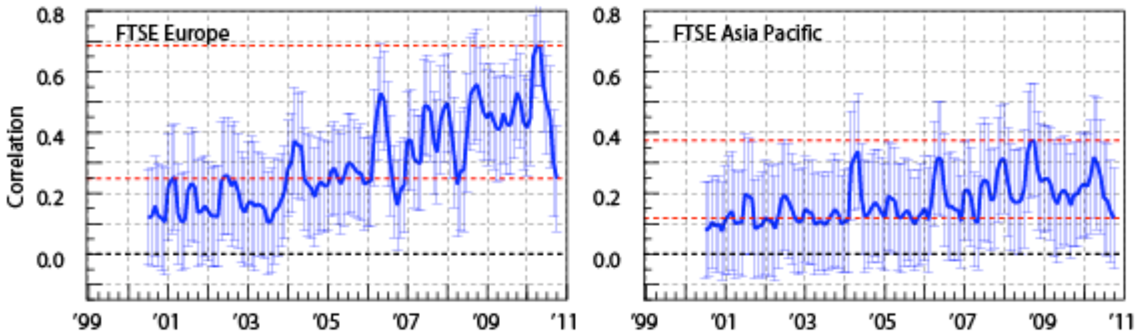

Figure 4. The average asset-asset 60-day forward return correlation for two regional markets: the FTSE Europe Index (left), and the FTSE Asia Pacific Index (right).

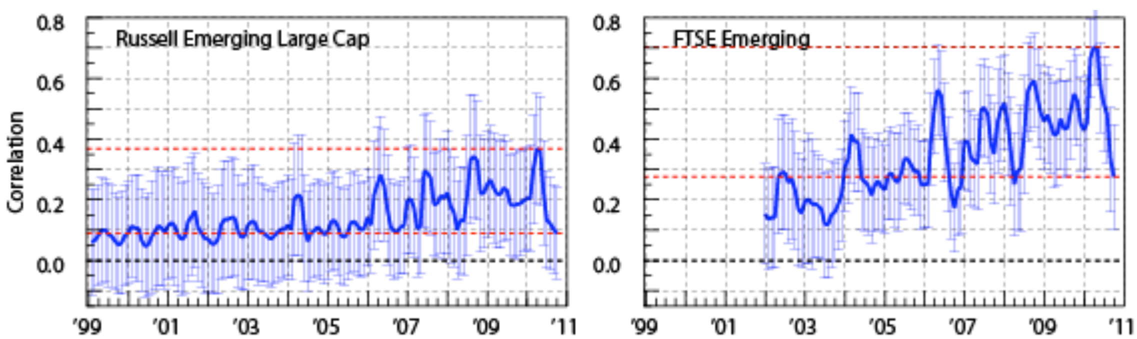

Figure 5. The average asset-asset 60-day forward return correlation for two emerging markets: the Russell Emerging Large Cap Index (left), and the FTSE Emerging Index (right).

3. Factor Risk Model Correlation Predictions Have Tracked These Changes Closely

How accurately are Axioma's daily factor risk models tracking these changes in asset-asset correlation?

Figure 6 compares the average realized 60-day forward asset-asset correlations (blue) against the predictions of Axioma's four US risk models for the Russell 1000 (left) and Russell 2000 (right) universes. The four US equity risk models used are:

AXUS2-SH (top, green) = Short Horizon, Fundamental Factor Risk Model
AXUS2-SH-S (top, red) = Short Horizon, Statistical Factor Risk Model
AXUS2-MH (bottom, green) = Medium Horizon, Fundamental Factor Risk Model
AXUS2-MH-S (bottom, red) = Medium Horizon, Statistical Factor Risk Model

Note that the realized correlations are forward correlations, i.e., they utilize return data occurring after the date plotted, while the risk model predictions use return data from before the date plotted. As a result, there is a natural and expected lag between the realized plot and the predicted plots.

Both short horizon models closely track the full decline in correlation for both universes, starting from all time highs in mid-2010 and then declining rapidly over the second half of 2010. The slopes of the declines in realized and predicted correlations are essentially identical.

Both medium horizon models also show correlation declines, but these declines are more muted due to the longer prediction horizon.

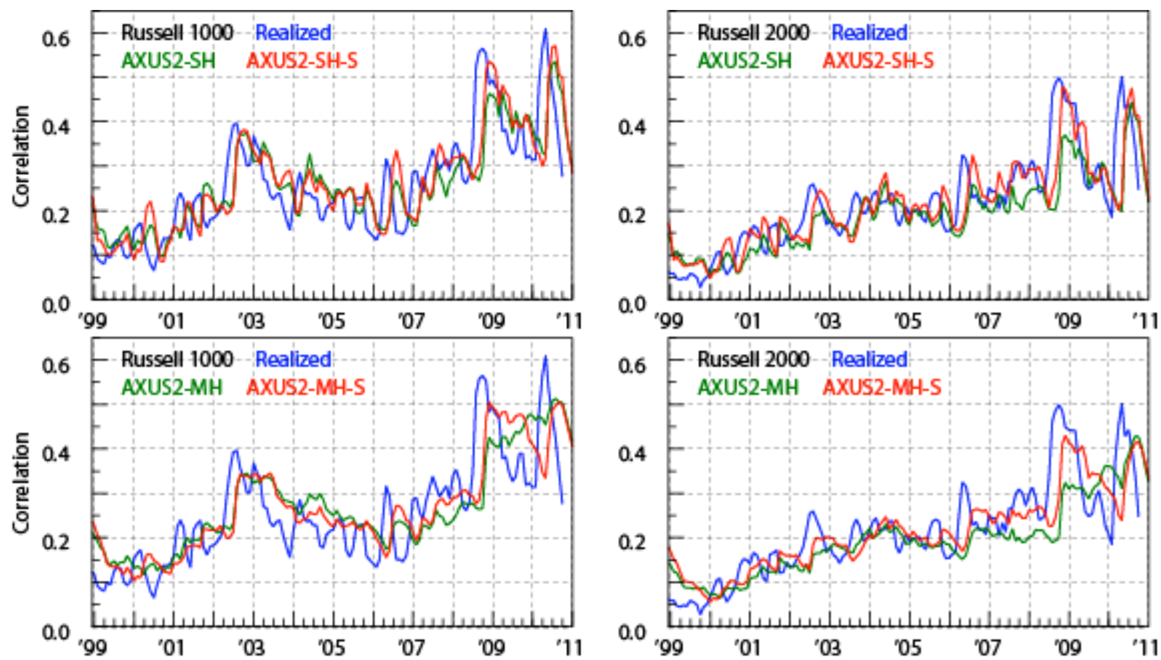

Figure 6. Comparison of the realized cross-sectional correlation (blue) with those predicted by four Axioma risk models for the Russell 1000 (left) and Russell 2000 (right) markets.

Axioma's daily factor risk models exhibit similar results in other markets. For example, Figure 7 shows the results for the FTSE 100 and FTSE 250 markets compared against Axioma Global Fundamental (AXWW2-MH) and Statistical (AXWW2-MH-S) medium horizon risk models. Figure 8 shows results for the FTSE Europe and FTSE Asia Pacific markets using the same global risk models.

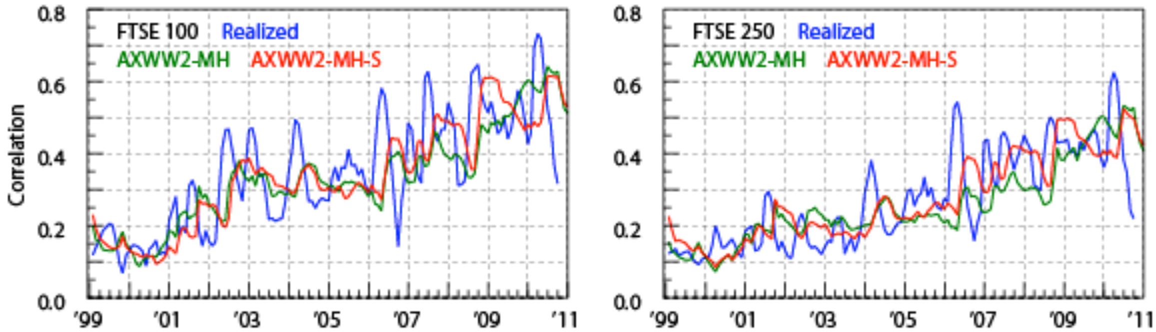

Figure 7. Comparison of the realized cross-sectional correlation with those predicted by two Axioma global risk models for the FTSE 100 (left) and FTSE 250 (right) markets.

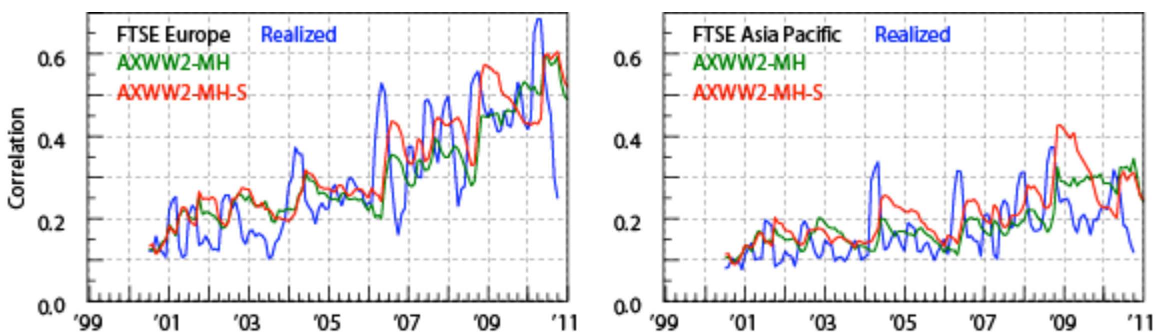

Figure 8. Comparison of the realized cross-sectional correlation with those predicted by two Axioma global risk models for the FTSE Europe (left) and FTSE Asia Pacific (right) markets.

The results demonstrate that Axioma's equity risk models are tracking recent market changes well, with the short horizon models reacting more rapidly than the medium horizon models, which is exactly how they are designed to behave.

4. Risk Model Characteristics

Since Axioma's risk models have closely tracked the recent whip-saw behavior in asset-asset correlations, it is natural to ask what components of these risk models have changed the most, with the hope that the risk model changes might explain recent market conditions.

Fig. 9 shows the average factor-factor correlations for AXUS2-SH broken down into separate factor groups: all factors (black), industry factors (blue), style risk factors (brown), and industry-style (green) risk factor pairs. Shown at right are the maximum and minimum industry-industry correlations.

Average industry-industry correlations increased substantially in late 2008, and have remained high for the past two years at an average value of 0.81. There was a small increase in industry-industry correlation in mid 2010, to about 0.84, which then dropped to 0.81. This small increase coincided with the increase in asset-asset correlations, but its magnitude was small. Since 2007, the minimum industry-industry correlations has increased steadily from -0.2 in 2007 to 0.5 today. *Currently, no US industries are uncorrelated.*

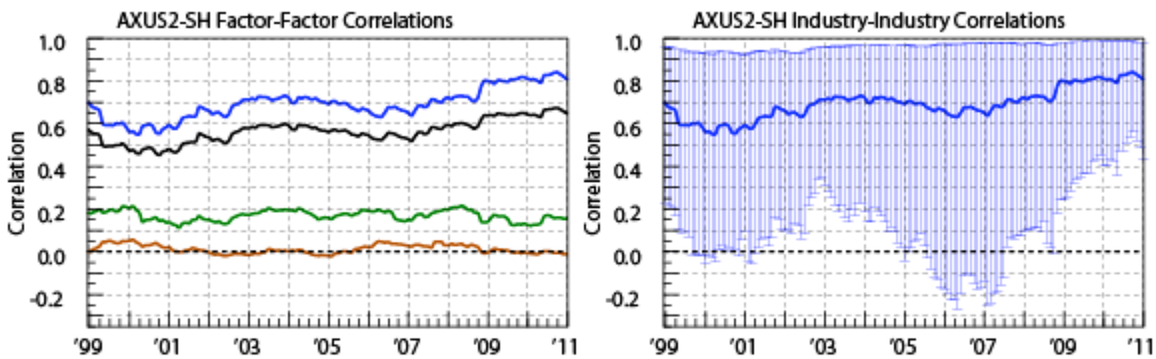

Figure 9. Left: average factor-factor correlations of AXUS2-SH for all factors (black), industry factors (blue), style risk factors (brown) and style-industry factor pairs (green). Right: average industry-industry correlation with error bars indicating the maximum and minimum industry-industry correlation across all 68 GICS® industries.

Fig. 10 shows the average factor volatilities for AXUS2-SH broken down into separate factor groups: all factors (black), industry factors (blue), and style risk factors (brown). Shown at right are the average specific risk predicted by AXUS2-SH for the Russell 1000 (blue) and Russell 2000 (red) universes.

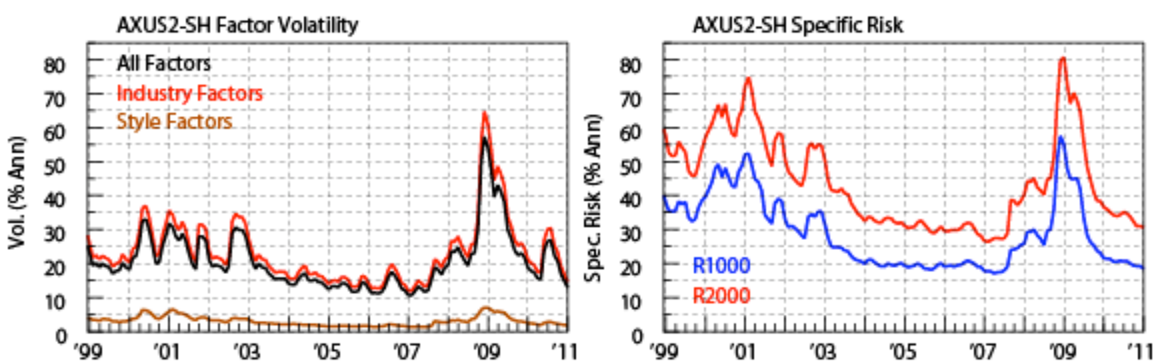

Figure 10. Left: average factor volatility of AXUS2-SH for all factors (black), industry factors (red), and style risk factors (brown). Right: average specific risk predicted by AXUS2-SH for the Russell 1000 (blue) and Russell 2000 (red) universes.

The most noticeable recent change in risk model characteristics is the sharp surge in factor volatility and, in particular, industry volatility, in mid 2010. Style risk factor volatility and specific risk both exhibit only small increases in 2010.

This data suggests that the recent surge and decline in asset-asset correlation has been driven by changes in factor volatility and not by changes in factor-factor correlations or specific risk.

However, between 2000 and 2002, industry volatility exhibited a series of four sharp surges that are quite similar to the one that occurred in 2010. However, realized asset-asset correlations in the Russell 1000 and Russell 2000 universes experienced only a moderate increase in asset-asset correlations in late 2002, mostly for the large cap (Russell 1000) universe (see Fig. 1).

5. Factor Volatilities Drove The Recent Changes

Since recent market movements have changed so much in such a short period of time, we can use a simple methodology involving a partially stale, out-of-date risk model to identify the contribution of a risk model component to the predicted cross sectional asset correlations. Specifically, we compute the predicted cross-sectional asset correlation shown in Fig. 6 using a risk model in which one of the risk model components – either the factor-factor covariance, the factor exposures, or the specific variance – is three months (60 days) out of date. The other two components are up-to-date. The magnitude of the change in predicted correlation using these partially stale risk models then identifies the magnitude of the contribution of that component.

We restrict ourselves to the Russell 1000 and Russell 2000 universes, and Axioma's two short term, equity factor risk models, AXUS2-SH and AXUS2-SH-S, both of which have closely tracked recent changes in cross sectional correlation.

Figure 11 compares the partially stale predictions using the fundamental risk model, AXUS2-SH.

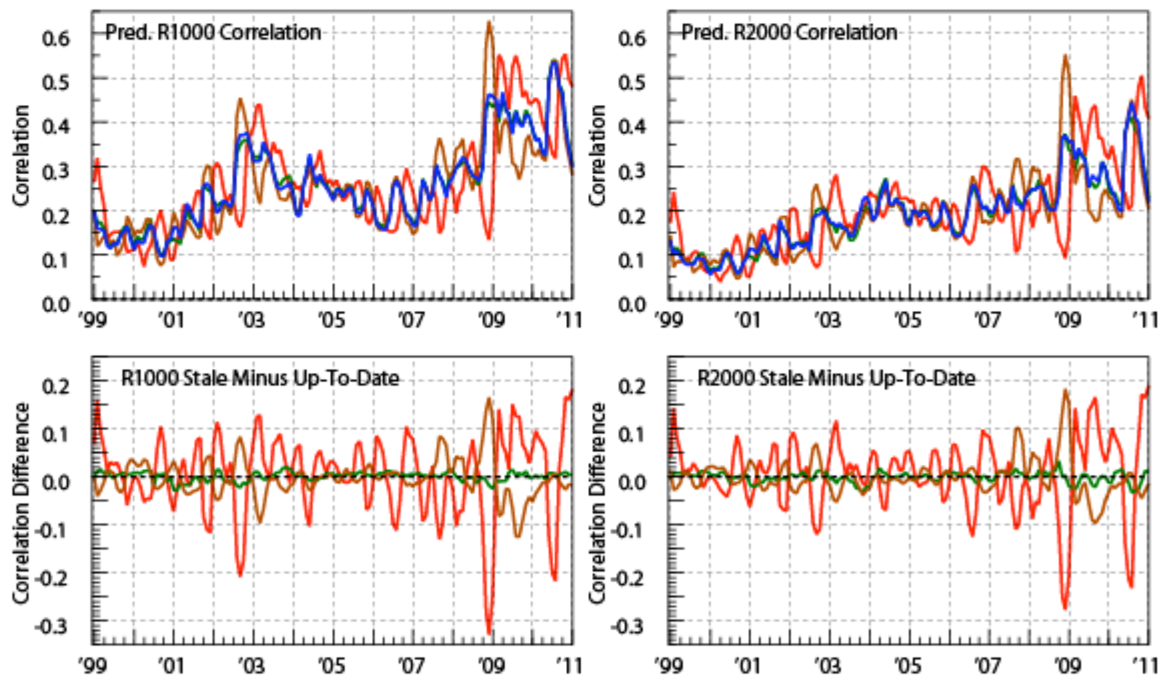

Figure 11. Comparison of the predicted cross-sectional correlation by AXUS2-SH for the Russell 1000 (left) and Russell 2000 (right) markets. Blue = up-to-date risk model (identical to Fig. 6); red = 3 month old factor-factor covariance; green = 3 month old factor exposures; brown = 3 month old specific risk. The differences between the stale and up-to-date predictions are shown at the bottom.

In Fig. 11, the differences between the stale and the up-to-date predictions are illustrated on the bottom charts. Stale factor exposures have negligible effect. This is indicated by the fact that the green line has negligible correlation difference in both universes. This is to be expected, as the factor exposures for the fundamental model are the GICS Industries, which do not change very often, and the 10 style risk factors, which are normalized as Z-scores.

For most of the time horizon, there is an inverse relationship between the stale factor-factor covariance (red) and the specific risk (brown). When one produces positive changes in correlation, the other produces negative changes, and vice versa. For example, during the last quarter of 2008, the relationship had stale specific risk (brown) increasing correlations while stale factor covariance (red) decreased correlation. Then, during most of 2009, this relationship was inverted. This, too, might be expected: often, as the market changes, the ratio between factor risk and specific risk varies, and as one decreases, the other increases.

However, for the last half of 2010, stale factor covariance produces large changes in correlation while stale specific risk produces negligible correlation changes. Also, notice that the peaks in correlation changes are now shifted 3 months forward relative to the up-to-date risk model (blue). This identifies factor-factor covariance as the primary driver of the recent changes in correlation. The other components of the fundamental factor risk model – factor exposure and specific risk – do not appear to have driven the recent market changes.

Notice, too, that between 2000 and 2002, when factor volatility peaked several times, the inverse relationship existed between factor-factor covariance and specific risk. The magnitude of the specific risk changes was about half that of the factor-factor covariance, but the inverse relationship is clear from the data. The behavior in 2010 is entirely different.

Is the same true for a statistical factor risk model? In a word, yes. Figure 12 compares the predictions using the statistical risk model, AXUS2-SH-S.

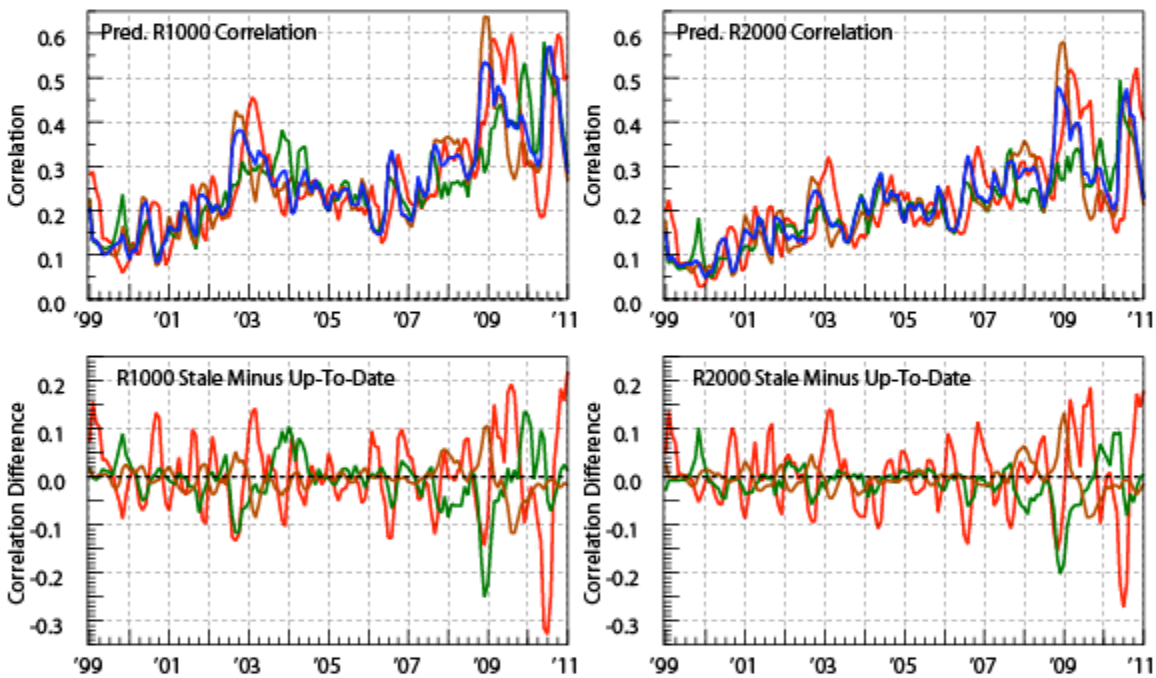

Figure 12. Comparison of the predicted cross-sectional correlation by AXUS2-SH-S for the Russell 1000 (left) and Russell 2000 (right) markets. Blue = up-to-date risk model (identical to Fig. 6); red = 3 month old factor-factor covariance; green = 3 month old factor exposures; brown = 3 month old specific risk. The differences between the stale and up-to-date predictions are shown at the bottom.

Unlike the fundamental factor risk model results, all three components in a statistical factor risk model can change predicted correlations, as seen by the fact that the correlation differences for the stale factor exposures (green lines) are frequently non-zero. This indicates periods of time when the statistical factors have changed significantly over a three month time period so that the delayed factor exposures are no longer aligned with the up-to-date factor covariance and specific risk. For most of the time period shown, there is a complicated inter-play between all three components of the risk model. However, once again, during the last half of 2010, both factor exposures and specific risk contributed little to changes in the correlation prediction. We therefore conclude that the primary driver of the recent changes in equity correlations as measured by factor risk models were changes in factor-factor covariance, both in fundamental and statistical risk model.

Having identified factor-factor covariance as the primary driver of the recent correlation changes, we can further compare the contribution of different components of the factor-factor covariance using the same method of delaying one component three months and computing this stale asset-asset correlation.

One possible decomposition of factor-factor covariance is into factor volatility and factor-factor correlation. Figs. 13 and 14 decompose the factor-factor covariance into stale factor volatility and stale factor-factor correlation to determine whether one of these has contributed more to correlation changes. Fig. 13 shows results for AXUS2-SH, the fundamental factor risk model, while Fig. 14 reports results for AXUS2-SH-S, the statistical factor risk model.

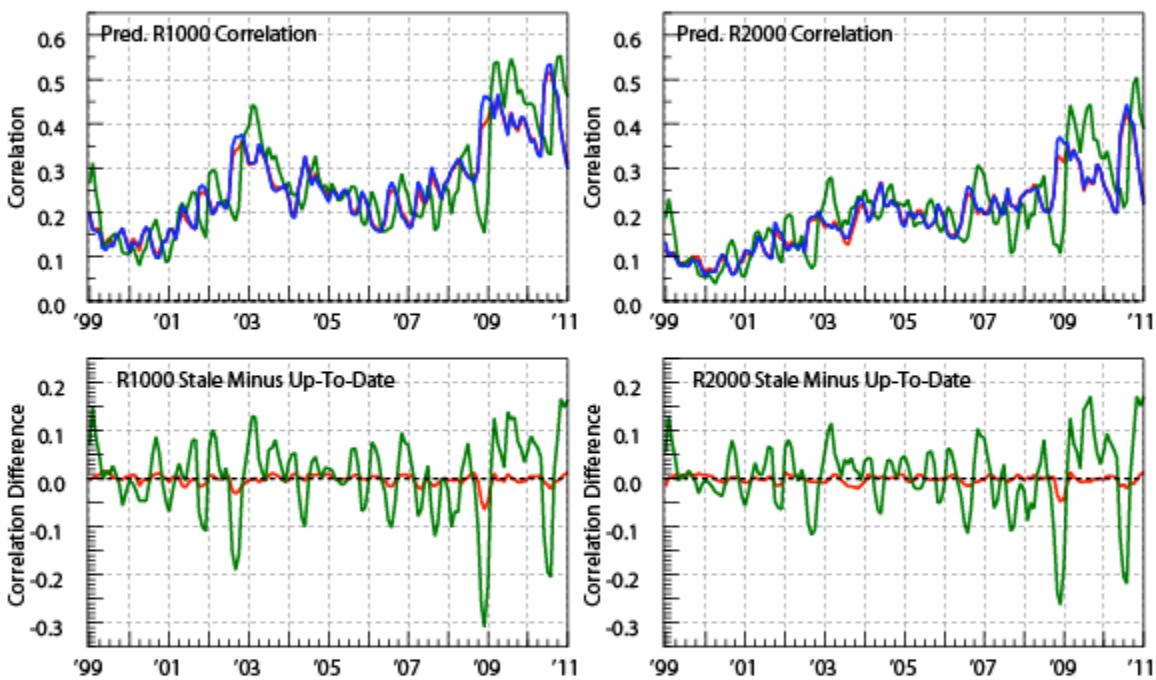

Figure 13. Comparison of the predicted cross-sectional correlation by AXUS2-SH for the Russell 1000 (left) and Russell 2000 (right) markets. Blue = up-to-date risk model (identical to Fig. 6); red = 3 month old factor-factor correlation; green = 3 month old factor volatility. The differences between the stale and up-to-date predictions are shown at the bottom.

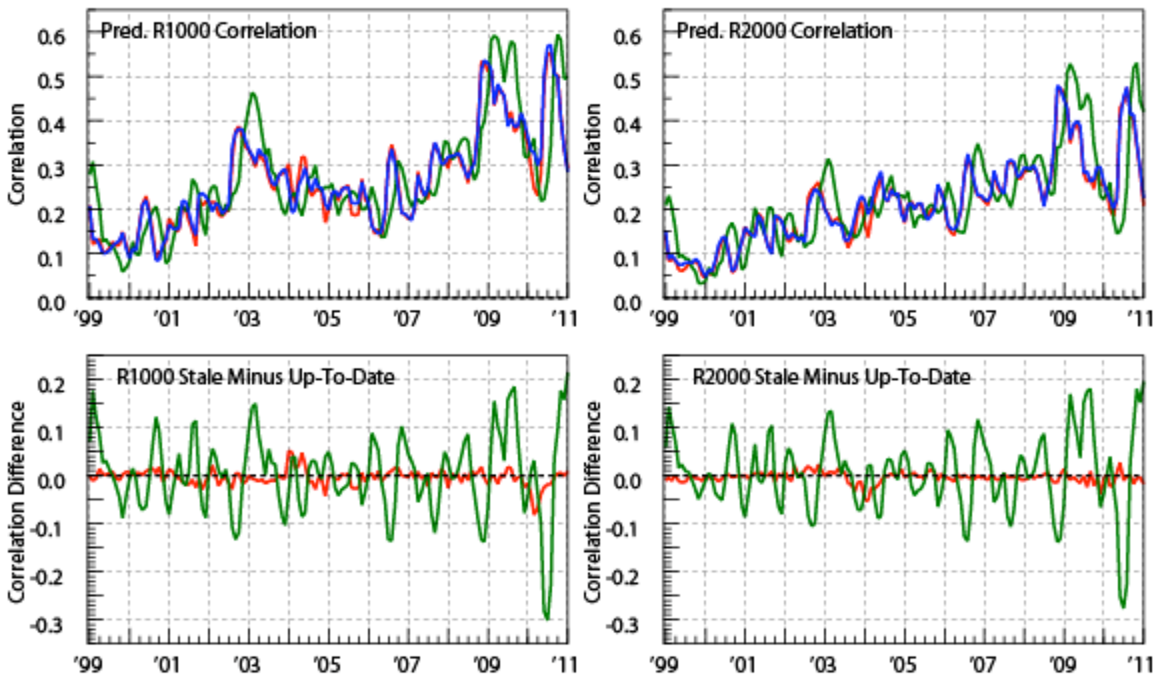

Figure 14. Comparison of the predicted cross-sectional correlation by AXUS2-SH-S for the Russell 1000 (left) and Russell 2000 (right) markets. Blue = up-to-date risk model (identical to Fig. 6); red = 3 month old factor-factor correlation; green = 3 month old factor volatility. The differences between the stale and up-to-date predictions are shown at the bottom.

These results indicate that the primary driver of the recent changes in asset-asset correlation have been changes in the factor volatilities. This is shown by the large, whip-sawing changes in correlation given by the green line during 2010. The small red line values indicate that changes in factor-factor correlations have not caused significant changes asset-asset correlations, either during 2010 or throughout the whole time period examined.

6. Which Factors Are Driving These Recent Changes?

Having identified factor-factor covariance and, in particular, factor volatility, as the primary drivers of the recent correlation changes, we can further compare the contribution of each of the factors using the same method or replacing up-to-date factor volatilities with stale factor volatilities for a single factor or a group of factors.

Fig. 15 shows a decomposition into style risk factors and industry risk factors for AXUS2-SH. In this case, the covariance matrix is computed by replacing the factor volatilities of either all the style risk factors or all the industry factors with stale values. The other factor volatilities and all the factor correlations remain up to date.

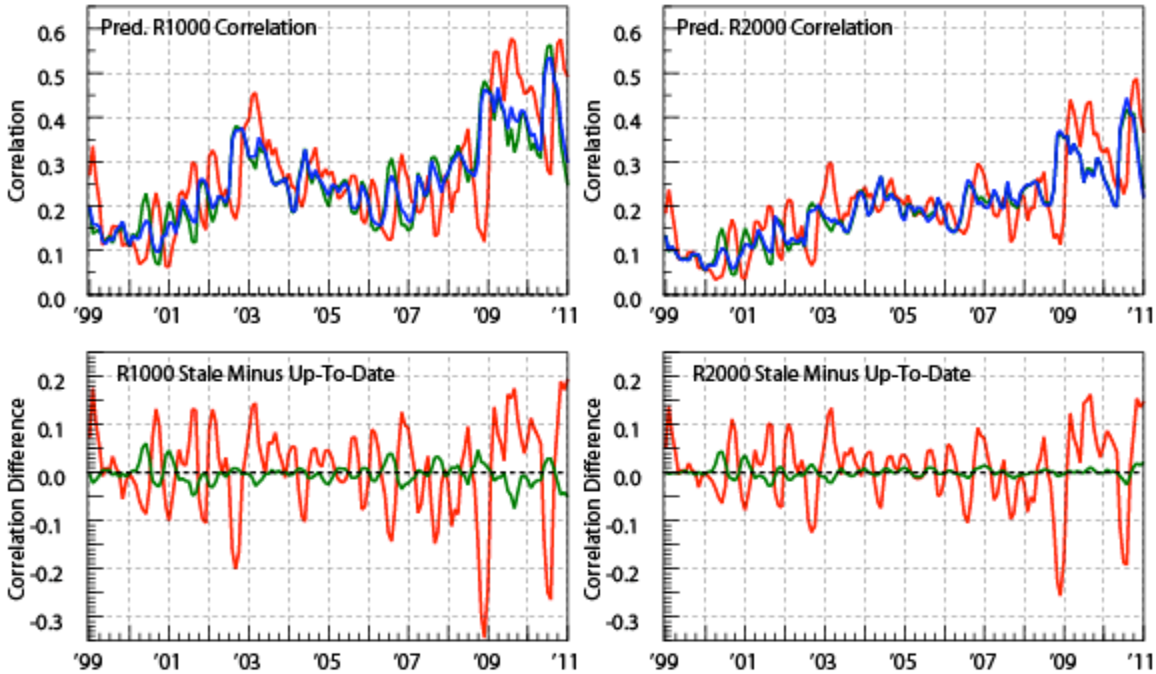

Figure 15. Comparison of the predicted cross-sectional correlation by AXUS2-SH for the Russell 1000 (left) and Russell 2000 (right) markets. Blue = up-to-date risk model (identical to Fig. 6); red = 3 month old industry factor volatilities; green = 3 month old style factor volatilities. The differences between the stale and up-to-date predictions are shown at the bottom.

These results indicate that industries have been a dominant driver not only of the recent correlation changes but, in fact, all correlations changes throughout the time period shown. The influence of style risk factor volatility on asset-asset correlation is modest, and particularly small for the small cap universe. The changes in 2010 were the second largest shown, only being surpassed by those of late 2008.

We can attribute the change in asset correlation to any subset of factors of a risk model simply by replacing the volatility of those factors with a volatility that is three months out-of-date. The change produced comparing value using the three month old factor volatility and the up-to-date factor volatility provides an estimate of the change attributable to that factor.

Table 1 shows an attribution of the surge in asset correlation between 4/30/2010 and 7/30/2010 broken down by GICS Sectors for both the Russell 1000 and Russell 2000 universes.

Russell 1000			Russell 2000	
Up-To-Date Risk Model	Predicted Asset-Asset Correlation		Up-To-Date Risk Model	Predicted Asset-Asset Correlation
4/30/2010	0.325		4/30/2010	0.198
7/30/2010	0.535		7/30/2010	0.444
Correlation Change	0.210		Correlation Change	0.246
Sector	Contribution To Correlation Change		Sector	Contribution To Correlation Change
Financials	0.051		Financials	0.046
Health Care	0.047		Information Technology	0.040
Information Technology	0.043		Health Care	0.038
Consumer Discretionary	0.039		Industrials	0.032
Consumer Staples	0.035		Consumer Discretionary	0.027
Industrials	0.032		Consumer Staples	0.011
Utilities	0.023		Materials	0.007
Materials	0.017		Utilities	0.006
Energy	0.011		Energy	0.006
Telecommunication Services	0.008		Telecommunication Services	0.003

Table 1. An attribution of asset correlation change between 4/30/2010 and 7/30/2010 broken down by GICS Sectors.

Table 2 shows a similar attribution broken down by GICS Industries. In this table, only the 12 largest contributors are shown.

Russell 1000	
Up-To-Date Risk Model	Predicted Asset-Asset Correlation
4/30/2010	0.325
7/30/2010	0.535
Correlation Change	0.210
Industry	Contribution To Correlation Change
Insurance	0.026
Food Products	0.014
Health Care Equipment & Supplies	0.014
IT Services	0.012
Health Care Providers & Services	0.012
Media	0.011
Electric Utilities	0.011
Software	0.010
Chemicals	0.010
Pharmaceuticals	0.009
Oil Gas & Consumable Fuels	0.009
Multi-Utilities	0.008

Russell 2000	
Up-To-Date Risk Model	Predicted Asset-Asset Correlation
4/30/2010	0.198
7/30/2010	0.444
Correlation Change	0.246
Industry	Contribution To Correlation Change
Commercial Banks	0.013
Health Care Equipment & Supplies	0.012
Software	0.011
Biotechnology	0.010
Insurance	0.010
Health Care Providers & Services	0.009
Real Estate Investment Trusts (REITs)	0.008
Capital Markets	0.007
Commercial Services & Supplies	0.007
Electronic Equip. Instr. & Comps.	0.007
Thrifts & Mortgage Finance	0.006
Internet Software & Services	0.006

Table 2. An attribution of asset correlation change between 4/30/2010 and 7/30/2010 broken down by GICS Industries. Only the 12 largest contributors are shown.

The data in Tables 1 and 2 shows that the Financial sector was the primary driver of the surge in asset correlations for both large and small cap universes. The contributions from Health Care and Information Technologies were also large. At the Industry level, Insurance stands out within the large cap universe in that its contribution is almost twice as large as the next largest industry (Food Products). In the small cap universe, Commercial Banks were the largest contributor, but its contribution is about the same size as the next largest contributor (Health Care Equipment & Supplies).

Although not explicitly shown in Table 2, all 68 GICS Industries contributed positively to the asset correlation surge. This, of course, is consistent with the large, positive industry correlations shown in Fig. 9.

Tables 3 and 4 show Sector and Industry contributions to correlation change from 7/30/2010 to 10/29/2010.

Russell 1000			Russell 2000	
Up-To-Date Risk Model	Predicted Asset-Asset Correlation		Up-To-Date Risk Model	Predicted Asset-Asset Correlation
7/30/2010	0.535		7/30/2010	0.444
10/29/2010	0.387		10/29/2010	0.333
Correlation Change	-0.148		Correlation Change	-0.111
Sector	Contribution To Correlation Change		Sector	Contribution To Correlation Change
Financials	-0.030		Financials	-0.031
Consumer Discretionary	-0.024		Information Technology	-0.024
Information Technology	-0.023		Health Care	-0.024
Health Care	-0.021		Industrials	-0.019
Utilities	-0.017		Consumer Discretionary	-0.018
Consumer Staples	-0.017		Energy	-0.007
Industrials	-0.016		Consumer Staples	-0.007
Energy	-0.012		Materials	-0.005
Materials	-0.010		Utilities	-0.004
Telecommunication Services	-0.003		Telecommunication Services	-0.001

Table 3. An attribution of asset correlation change between 7/30/2010 and 10/29/2010 broken down by GICS Sectors.

Russell 1000		Russell 2000	
Up-To-Date Risk Model	Predicted Asset-Asset Correlation	Up-To-Date Risk Model	Predicted Asset-Asset Correlation
7/30/2010	0.535	7/30/2010	0.444
10/29/2010	0.387	10/29/2010	0.333
Correlation Change	-0.148	Correlation Change	-0.111
Industry	Contribution To Correlation Change	Industry	Contribution To Correlation Change
Insurance	-0.011	Biotechnology	-0.009
Oil Gas & Consumable Fuels	-0.009	Commercial Banks	-0.009
Food Products	-0.008	Real Estate Investment Trusts (REITs)	-0.007
Electric Utilities	-0.007	Oil Gas & Consumable Fuels	-0.006
Real Estate Investment Trusts (REITs)	-0.006	Software	-0.006
Specialty Retail	-0.006	Health Care Equipment & Supplies	-0.005
Multi-Utilities	-0.006	Specialty Retail	-0.005
Media	-0.006	Insurance	-0.004
Health Care Equipment & Supplies	-0.005	Health Care Providers & Services	-0.004
IT Services	-0.005	Capital Markets	-0.004
Health Care Providers & Services	-0.005	Semiconductors & Semicond. Equip.	-0.004
Software	-0.005	Internet Software & Services	-0.004

Table 4. An attribution of asset correlation change between 7/30/2010 and 10/29/2010 broken down by GICS Industries. Only the 12 largest contributors are shown.

As with the surge from 4/30/2010 to 7/30/2010, the decline from 7/30/2010 to 10/29/2010 was led by Financials in both the large and small cap universes, and by Insurance in the large cap universe.

7. Why Was The Asset Correlation Surge So Severe?

The data suggests that industry volatility was the primary driver of the surge in asset correlations. Notice, however, that in Fig. 10 there are series of four industry volatility surges between 2000 and 2002 that are similar to the one that occurred in 2010. The Russell 1000 and Russell 2000 universes experienced only moderate increases in asset-asset correlations during this same time period, mostly for the large cap universe (see Fig. 1).

Why was the recent asset correlation surge so severe while the earlier surges comparatively mild? We believe the primary difference in these events is industry-industry correlation, which is significantly higher now than it was in 2000 and 2002.

We can use Axioma's factor risk models to test this hypothesis by computing the predicted asset-asset correlations using risk models with different factor-factor correlations. Fig. 16 compares the predicted asset correlations for the Russell 1000 and Russell 2000 universes using an up-to-date version of AXUS2-SH; a version of AXUS2-SH with the factor-factor correlations from 9/30/2002; and a version of AXUS2-SH with the factor-factor correlations from 7/30/2010.

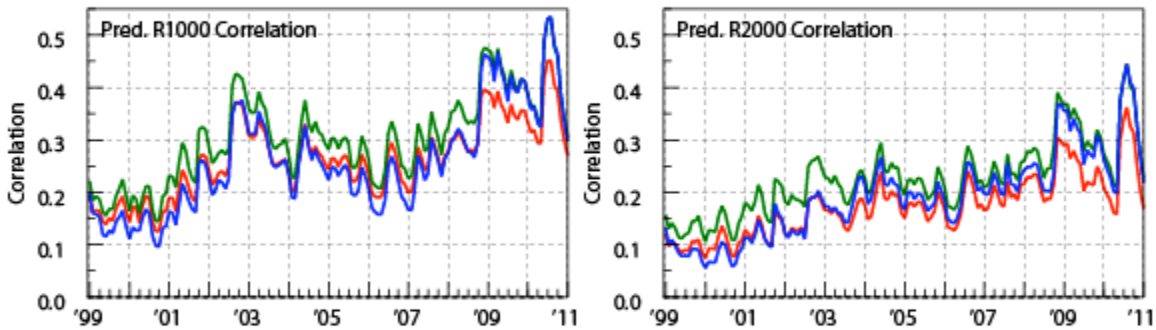

Figure 16. Predicted asset-asset correlation for three different risk models for the Russell 1000 and Russell 2000 universes. Blue = up-to-date AXUS2-SH risk model; red = AXUS2-SH with factor correlations taken from 9/30/2002; green = AXUS2-SH with factor correlations taken from 7/30/2010.

The results indicate that the changes in factor-factor correlation from 2002 to 2010 account for a difference in predicted asset-asset correlations of approximately 0.05 in 2002 and 0.10 in 2010, given identical increases in factor volatility. That is, the predicted 2010 surge in asset-asset correlations would have peaked at 0.45 and 0.36 for the Russell 1000 and Russell 2000 universes respectively, rather 0.54 and 0.44 if the factor-factor correlations had not changed since 2002. This is an asset correlation reduction of nearly 0.1 in both cases. Conversely, if we replace the actually 2002 factor correlations with those of 2010, the predicted asset correlation rises during 2002 from 0.37 to 0.42 and 0.20 to 0.27 for the Russell 1000 and Russell 2000 universes respectively.

8. The New Market Norm

An analysis of asset-asset correlations using Axioma's Robust Risk Models indicate that the recent surge in asset correlations was driven primarily by a short-lived rise in industry volatilities and exacerbated by the current high levels of industry-industry correlation. The high industry correlations mean that one industry can easily contaminate others, leading to unexpectedly large market changes in asset correlation.

Although asset correlations are once again at pre-crisis levels, industry correlations remain high. This suggests that the market may be especially susceptible to rapid changes in asset correlations. This is not without historical precedent. In 2006, correlations in the European markets whip-sawed from all-time highs in the first half of the year to historically low levels in the second half, before rebounding to relatively high levels by the start of 2007. So asset correlations may head back up, and—as noted in our November 2010 article—such a pattern would be consistent with the longer term trend of steadily rising correlations.

However, as seen this past year, market moves can be surprisingly short-lived. Investors may be rewarded for not over-reacting to market movements, as the high levels of industry correlation may drive relatively short-lived market changes.

Regardless of what happens in 2011, the decrease in equity correlations over the last six months is a welcome sign for the vast majority of equity investors. Many of the commonly used investment equity strategies, including hedging, diversification and alpha generation, generally perform better when asset returns are less correlated.