



Axioma Research Paper No. 030

March 2011

Is Big Beautiful Again?

Anthony Renshaw, PhD

Over the last two to three years, assets under management left large cap equity markets in favor of small cap and emerging markets, where plenty of alpha opportunity remained. However, the recent rally of the US and other developed equity market suggests a reversal of that trend with rebalancing aimed at de-risking investments by moving out of small and emerging markets and into large, liquid stock in developed markets.

An examination of the factor returns over a range of Axioma's fundamental factor risk models shows that four technical factors have dominated performance over the last four months through the end of February: beta or market sensitivity, volatility, short-term momentum, and liquidity.

In the EM and smaller markets such as Asia Pacific Ex Japan, all four of these factors have exhibited consistently negative returns. In the largest developed equities markets – US, Great Britain, and, prior to the earthquake, Japan – strategies with high beta exposure have shown the best factor returns, suggesting that the developed equity markets may now be a safe haven for investments compared with other world equity markets.





Is Big Beautiful Again?

By Anthony Renshaw, PhD

March 2011

© Copyright, Axioma, Inc 2011 - All rights reserved

1. Introduction

Over the last two to three years, assets under management left large cap equity markets in favor of small cap and emerging markets, where plenty of alpha opportunity remained. However, the recent rally of the US and other developed equity market suggests a reversal of that trend. Over the last four months, developed equities have performed consistently well, while emerging markets (EM) have faltered.

An examination of the factor returns over a range of Axioma's fundamental factor risk models shows that four technical factors have dominated performance over the last four months: beta or market sensitivity, volatility, short-term momentum, and liquidity.

In the EM and smaller markets such as Asia Pacific Ex Japan, all four of these factors have exhibited consistently negative returns. Of course, world events have caused concern for these markets. Turmoil in the Middle East is impacting the oil-dependent economic growth of the EM countries more than the services-dependent economies of the developed world. Inflationary pressures in China have made that government impose harsher controls aimed at easing economic growth. The EM equity market is more vulnerable to rising inflation than the developed equity markets.

In the largest developed equities markets – US, Japan, and Great Britain – strategies with high beta exposure have shown the best factor returns, suggesting that the developed equity markets may now be a safe haven for investments compared with other world equity markets. In other words, we have just observed a rebalancing exercise aimed at de-risking investments by moving out of small and emerging markets and into large, liquid stock in developed markets.

2. Factor Returns Over the Last Four Months

Figure 1 shows the cumulative return of the Market Factor for seven Axioma fundamental factor risk models over the last four months. The exposure of all assets in each of these models to the market factor is one. The seven models are North America (AXNA), Global (AXWW2), European (AXEU2), Global Ex US (AXWWxUS), Asia Pacific (AXAP), Asia Pacific Ex Japan (AXAPxJP), and Emerging Markets (AXEM2).

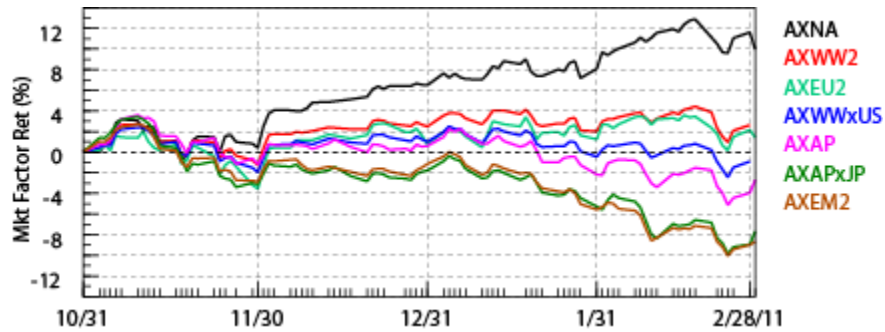


Figure 1. The cumulative return of the Market Factor for seven Axioma fundamental factor risk models over the last four months. AXNA = North America; AXWW2 = Global; AXEU2 = European; AXWWxUS = Global Ex US; AXAP = Asia Pacific; AXAPxJP = Asia Pacific Ex Japan; AXEM2 = Emerging Markets. Colors for each model are shown at right.

Over the last four months, the North American market return has consistently outperformed, while the Emerging Markets and Asia Pacific Ex Japan have consistently underperformed.

In Fig. 2, we show the Market Sensitivity factor return for three single-country models: the US, Japan, and Great Britain. These three countries comprise the most highly developed equity markets. In these single country models, the Market Factor (with exposure one) plotted in Fig. 1 is replaced with a Market Sensitivity factor (with exposure equal to the historical beta of the asset).

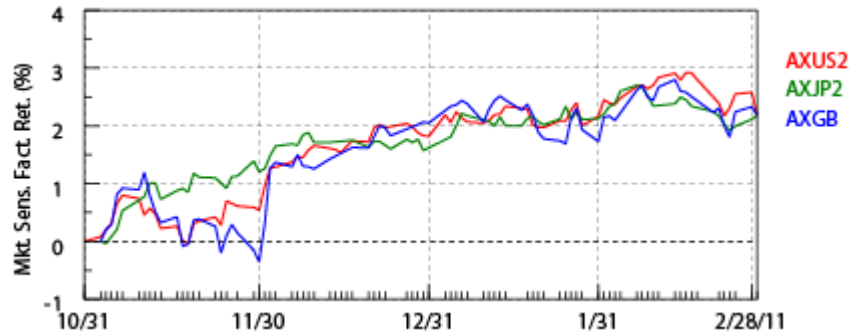


Figure 2. The cumulative return of the Market Sensitivity (beta) Factor for three Axioma, single-country, fundamental factor risk models over the last four months. AXUS2 = United States; AXJP2 = Japan; AXGB = Great Britain. Colors for each model are shown at right.

The cumulative Market Sensitivity factor returns for all three developed countries are virtually identical. Since the North American Market return shown in Fig. 1 is dominated by US equities, it is reasonable to assume that all three of these highly developed markets would have market factor returns comparable to the North American market return in Fig. 1. That is, the developed, liquid markets have had consistently strong, returns over the last four months.

When we look at the other technical style risk factors, we see a number of trends.

Fig. 3 shows the factor returns for the Emerging Markets and Asia Pacific Ex Japan risk models for six technical style factors: liquidity, size, short-term momentum, medium-term momentum, volatility, and exchange rate sensitivity. For both markets, volatility underperformed substantially, indicating that higher volatility stocks did poorly and, conversely, lower volatility stocks did well. This is a clear sign that investors were deleveraging in these markets.

Size also exhibited an interesting behavior. Overall, size did well, meaning larger capitalization stocks within these small cap universes outperformed. However, for both markets, the size return was flat except for the first week of November (positive return), the first week of December (positive return), the first week of February (negative return) and the last three weeks of February (steady positive returns). This data suggests the possibility that the size factor returns are primarily driven by the traditional monthly rebalancing process in the first week of the month. Intra-month rebalancing timing may be particularly important for strategies with a view on the size factor in these markets.

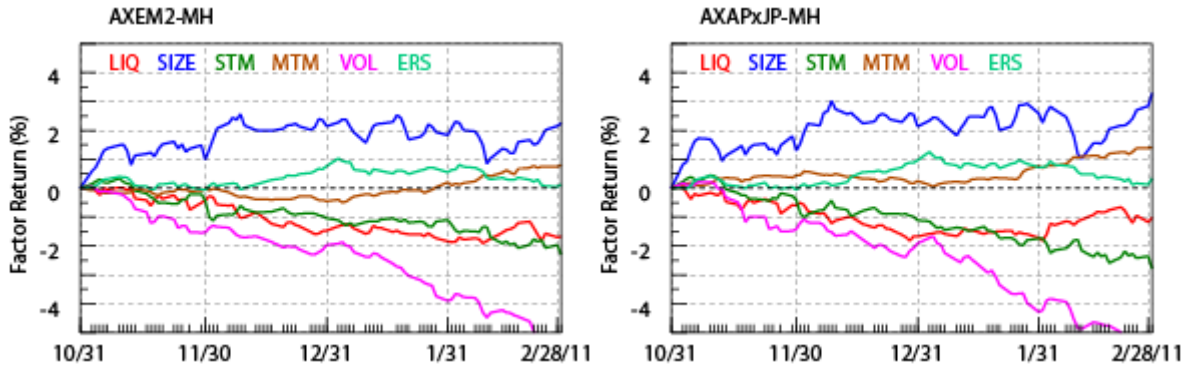


Figure 3. The cumulative return of the technical style risk factors for the Emerging Markets (AXEM2-MH) and Asia Pacific Ex Japan (AXAPxJP-MH), medium horizon, fundamental factor risk models. The technical factors are liquidity (LIQ, red), size (SIZE, blue), short-term momentum (STM, dark green), medium-term momentum (MTM, brown), volatility (VOL, pink), and exchange rate sensitivity (ERS, aquamarine). Corresponding colors are shown on the graph.

Fig. 4 shows the factor returns for the North American and US risk models for the same six technical style factors, plus a market sensitivity factor for the US risk model.

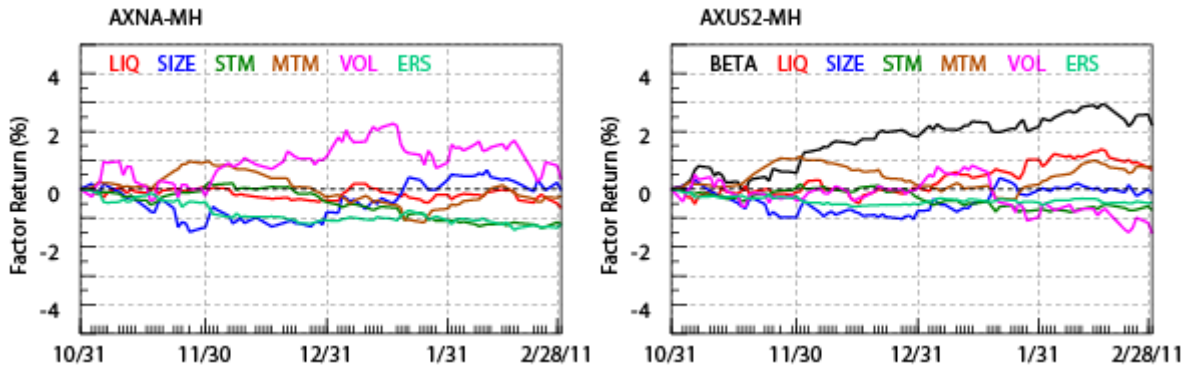


Figure 4. The cumulative return of the technical style risk factors for the North American (AXNA-MH) and US (AXUS2-MH), medium horizon, fundamental factor risk models. The same factors as in Fig. 3 are shown plus a market sensitivity factor (BETA, black) only for the US model.

The best performer for both the North American and US models has been the Market Factor (North America – see Fig. 1) and Market Sensitivity (US, Fig. 3, right, black) both of which have shown consistently positive returns over the four-month time period. In comparison, the other factors do not exhibit any consistent trends over this time period. This seems to indicate that

performance was driven more by funds flow, switching out of emerging markets and into developed ones, than from any specific intra-market shift from one factor to another; moving from large-cap stocks to small cap stocks, say.

Fig. 5 shows the technical style factor returns for Japan and Great Britain, the other most developed equity markets. As shown in Fig. 2, the market sensitivity (beta) factor has performed consistently well in these two countries. However, unlike the US market, other factors have performed poorly. Short term momentum has been a consistent loser for both markets. In addition, size has done poorly except during February where it was flat. In the last month, volatility in Great Britain has done poorly as well, which may reflect uncertainty concerning the situation in the Middle East. Note that in the US (Fig. 4), the volatility factor started to drop only in the second half of February.

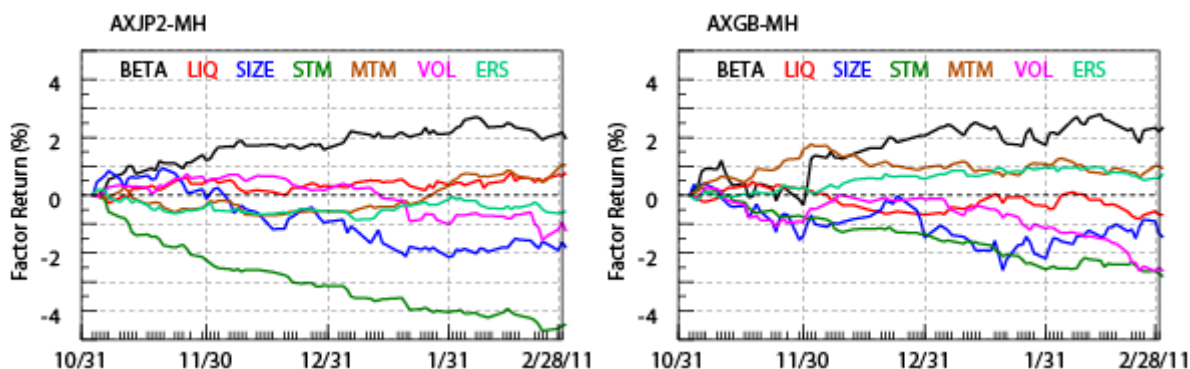


Figure 5. The cumulative return of the technical style risk factors for the Japan (AXJP2-MH) and Great Britain (AXGB-MH), medium horizon, fundamental factor risk models.

3. Concluding Comments

The market returns over the last four months have strongly favored investments in large cap, developed, highly liquid markets, such as the US, Japan, and Great Britain, over those in EM and other smaller regions. Globally, the market returns have been relatively flat, as one might expect since the large positive returns from developed markets were counteracted by negative returns in less developed markets.

An analysis of the underlying factor performance of Axioma's fundamental risk models suggests that a large reallocation of risk has taken place over the last four months. Events in the Middle East, a large over-weight position in emerging markets – the darlings of investors for the past two years - as well as rising inflation fears in Asia ex-Japan have all helped to raise investors' risk aversion in these markets. Conversely, a benign earnings season in the US, lower levels of

stress on the Euro, and an oversold situation in Japan, have made these developed markets an obvious safe-haven for investors.

Where will all this money go next? These charts seem to indicate that this rebalancing came to an end in the second half of February. We now have a lot of money parked in the developed markets – principally the US – where the underlying conditions make it very likely that asset-asset correlations will spike up again even for fairly modest surges in any industry volatility¹.

¹ See Axioma's recent paper "The Domino Effect in Industries: Why Equity Correlation Surges Are Now So Severe"