A Low Vol Surprise? Since mid-2012, the allocation to the Financials sector in typical low volatility portfolios has doubled in most markets and is now the largest sector allocation. At the same time, allocations to utilities and consumer staples have decreased substantially. The resulting portfolios may be so concentrated in Financials that managing the resultant exposures is difficult.
Where Have All the Utilities Gone?
Financials Now Dominate a Crowded Low Vol World

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1. Introduction

Like a wedding guest list that starts off small then balloons to include second cousins twice removed, low volatility products currently include sector allocations that may surprise investors.

Traditionally, low volatility products have had substantial allocations to the utilities and consumer staples sectors—sectors with long histories of “unexciting” returns. However, since mid-2012, a typical low volatility portfolio has allocated less and less to utilities and consumer staples and more and more to financials, a sector with a very different set of expectations.

This phenomenon appears to be global. For example, as of 2/26/2015:

- SPLV, the PowerShares S&P 500 Low Volatility Portfolio, has a 36.4% allocation to financials, an 18.2% allocation to consumer staples, and a 13.3% allocation to utilities.

- IDLV, the PowerShares S&P International Developed Low Volatility Portfolio, has a 42.6% allocation to financials, a 12.5% allocation to consumer staples, and an 8.6% allocation to utilities.

- EELV, the PowerShares S&P Emerging Markets Low Volatility Portfolio, has a 40.1% allocation to financials, an 11.5% allocation to consumer staples, and a 4.0% allocation to utilities.

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Part of this trend is explained by recent events. Since June 2014, oil prices have plummeted, increasing volatility for oil-sensitive utility equities, which has likely caused some utility stocks to become too volatile for low volatility products.

Similarly, at least in the US, the increased allocation to the insurance industry (within financials) has coincided with the implementation of Obamacare (including a short-lived rise in volatility during the 2012 presidential election campaign when Mitt Romney vowed to repeal Obamacare).

However, what is potentially more disconcerting to investors, is the degree of “low volatility crowding.” After several years of historically low market volatility, the differences in volatility between alternative equities, industries, or sectors is as small as it’s ever been. The current allocations would change rapidly if the volatility of different sectors changed just a few basis points, or if a company had a bad week in the market.

The current low volatility allocations may be more concentrated and sensitive to fluctuations in market volatility than some investors would like.

2. US Equity Results

We create a prototypical low volatility portfolio for analysis purposes. Starting with the equities in the Russell 1000, we rank each stock in terms of its one year historical volatility. We then take the 100 stocks with the lowest historical volatility, and weight them proportional to the inverse of their historical volatility. Since most of the stocks in the portfolio have about the same, low, historical volatility, the portfolio is essentially equal weighted4.

Fig. 1 shows the allocation weight for the 10 GICS sectors in this prototypical low volatility portfolio every month since 2000.

4 Yet another effect of low volatility crowding.
Fig. 1. The allocation weight in the 10 GICS sectors for a prototypical portfolio of 100 low volatility stocks taken from the Russell 1000. Colors of each sector are given on right.

Over this time window, low volatility has been dominated by three sectors: utilities (black), consumer staples (green), and financials (red).

The weight in utilities has varied considerably, from over 50% in 2000 to less than 10% in 2002. From 2004 through late 2012, the number varied from 20% to 40%. It then started a steady decline to its current value of 5%.

The weight in consumer staples rose steadily from less than 10% to over 30% in 2010, levelled off until mid-2012, and then steadily decreased.

Conversely, financials peaked at over 70% in 2002, fell to almost nothing from 2006 to 2012, and then skyrocketed, reaching over 60% on January 2015. Its rise since June 2014, when oil prices started plummeting, has been spectacular.

Before diving deeper into the industries dominating low volatility, we first plot in Fig. 2 the cap-weighted, average, one year historical realized volatility of each sector in the Russell 1000. This represents the selection pool from which our low volatility product is selected. Since late 2012, the spread in historical volatility between sectors has shrunk to levels not previously seen. As of the end of January 2015, the lowest average historical volatility was Telecommunication Services at 16.3%, while the highest was Energy at 25.3%. Although it is hard to see, Financials was in the middle of the pack back in mid-2012, but has now dropped down to the lowest volatility values.
Fig. 2. The cap-weighted, average, one year historical realized volatility of each sector in the Russell 1000.

Currently, there isn’t a great difference in historical volatility for a large number of equities from a wide spectrum of sectors. Low volatility products therefore may well include allocations to sectors and industries not often seen.

Table 1 shows the top 10 GICS industries allocations (out of 68) as of 1/30/15 in our prototypical low volatility portfolio. These top 10 industries account for 82 percent of the portfolio. The top two—REITs and Insurance—account for 58%.

<table>
<thead>
<tr>
<th>Industry</th>
<th>Sector</th>
<th>Low Vol Wgt (%)</th>
<th>Cap-Wgt Historical Vol (% Ann)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Real Estate Investment Trusts (REITs)</td>
<td>Financials</td>
<td>32.5%</td>
<td>13.7%</td>
</tr>
<tr>
<td>2 Insurance</td>
<td>Financials</td>
<td>25.5%</td>
<td>13.6%</td>
</tr>
<tr>
<td>3 Household Products</td>
<td>Consumer Staples</td>
<td>4.1%</td>
<td>13.6%</td>
</tr>
<tr>
<td>4 Food &amp; Staples Retailing</td>
<td>Consumer Staples</td>
<td>3.9%</td>
<td>14.2%</td>
</tr>
<tr>
<td>5 Electric Utilities</td>
<td>Utilities</td>
<td>3.8%</td>
<td>14.6%</td>
</tr>
<tr>
<td>6 Commercial Services &amp; Supplies</td>
<td>Industrials</td>
<td>3.4%</td>
<td>12.4%</td>
</tr>
<tr>
<td>7 IT Services</td>
<td>Information Technology</td>
<td>2.9%</td>
<td>14.4%</td>
</tr>
<tr>
<td>8 Containers &amp; Packaging</td>
<td>Materials</td>
<td>2.0%</td>
<td>14.0%</td>
</tr>
<tr>
<td>9 Beverages</td>
<td>Consumer Staples</td>
<td>2.0%</td>
<td>14.0%</td>
</tr>
<tr>
<td>10 Tobacco</td>
<td>Consumer Staples</td>
<td>1.9%</td>
<td>14.3%</td>
</tr>
</tbody>
</table>

Table 1. The 10 largest industry allocations in the prototypical low volatility portfolio from the Russell 1000.

4
The range of historical volatilities among these 10 industries is 12.4% to 14.6%. That is, there is only 220 bps of difference in these different industries. Relatively small changes in the market could easily change these volatilities enough to shuffle the allocation.

Fig. 3, which shows the allocation of these 10 industries in the prototypical low volatility portfolio over time, illustrates precisely this fact. Consider REITs, which constituted over 30% of the portfolio as 1/31/15. Its allocation was zero in 5/30/14. So, even though historical volatility is measured over an entire year, low volatility crowding has facilitated rapid changes in allocation.

**Fig. 3.** The allocation weight to the 10 industries shown in Table 1 for the prototypical low volatility portfolio from the Russell 1000 over time.

### 3. European Results

Next, we perform the same analysis for the FTSE Europe universe.

Fig. 4 shows the allocation weight for the 10 GICS sectors in this prototypical low volatility portfolio every month since 2000.
Fig. 4. The allocation weight in the 10 GICS sectors for a prototypical portfolio of 100 low volatility stocks taken from the FTSE Europe.

In Europe, financials (red) played a dominant role in low volatility from 2000 to 2006, but has steadily risen since mid-2012. Consumer staples (green) has had high allocations, peaking at 30% in 2012, but has declined since. Utilities (black) peaked at 20% in 2010, but remains low.

Fig. 4 shows the cap-weighted, average, one year historical realized volatility of each sector in the FTSE Europe. If anything, the current crowding is even denser in Europe than it is in the US.
Fig. 5. The cap-weighted, average, one year historical realized volatility of each sector in the FTSE Europe.

Table 2 shows the top 10 industries allocations (using the industry classification used by AXEU21-MH, Axioma’s European Equity Fundamental Factor Risk model) as of 1/30/15 in our prototypical low volatility portfolio. These top 10 industries account for 76% of the portfolio. The top two—Real Estate and Insurance, the same industries that topped the US analysis—account for 24%.

<table>
<thead>
<tr>
<th>Industry</th>
<th>Sector</th>
<th>Low Vol Wgt</th>
<th>Cap-Wgt Historical Volatility (% Ann)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Real Estate</td>
<td>Financials</td>
<td>12.3%</td>
<td>17.2%</td>
</tr>
<tr>
<td>2 Insurance</td>
<td>Financials</td>
<td>11.6%</td>
<td>15.4%</td>
</tr>
<tr>
<td>3 Food Beverage &amp; Tobacco</td>
<td>Consumer Staples</td>
<td>11.3%</td>
<td>15.8%</td>
</tr>
<tr>
<td>4 Capital Goods</td>
<td>Industrials</td>
<td>7.9%</td>
<td>14.3%</td>
</tr>
<tr>
<td>5 Media</td>
<td>Consumer Discretionary</td>
<td>7.1%</td>
<td>15.9%</td>
</tr>
<tr>
<td>6 Utilities</td>
<td>Utilities</td>
<td>6.9%</td>
<td>16.5%</td>
</tr>
<tr>
<td>7 Materials</td>
<td>Materials</td>
<td>5.9%</td>
<td>16.5%</td>
</tr>
<tr>
<td>8 Consumer Durables &amp; Apparel</td>
<td>Consumer Discretionary</td>
<td>4.6%</td>
<td>17.6%</td>
</tr>
<tr>
<td>9 Diversified Financials</td>
<td>Financials</td>
<td>4.1%</td>
<td>16.0%</td>
</tr>
<tr>
<td>10 Household &amp; Personal Products</td>
<td>Consumer Staples</td>
<td>3.9%</td>
<td>16.4%</td>
</tr>
</tbody>
</table>

Table 2. The 10 largest industry allocations in the prototypical low volatility portfolio taken from the FTSE Europe.

Fig. 6, shows the allocation of these 10 industries in the prototypical low volatility portfolio over time.

Food Beverage & Tobacco, a traditional consumer staples industry, has always played a dominant role in low volatility, and remains the third largest allocation. However, since 2013, the allocation to real estate, insurance, and capital goods has increased substantially. This trend mirrors the US results.
Fig. 6. The allocation weight to the 10 industries shown in Table 1 for the prototypical low volatility portfolio using the FTSE Europe over time.

4. Emerging Market Results

Finally, we perform the same analysis for the FTSE Emerging universe.

Fig. 7 shows the allocation weight for the 10 GICS sectors in this prototypical low volatility portfolio every month since 2000.
Fig. 7. The allocation weight in the 10 GICS sectors for a prototypical portfolio of 100 low volatility stocks taken from the FTSE Emerging.

In the Emerging Market, financials (red) has always played the dominant role. However, since 2012 its allocation has doubled to 40%, which is more than twice as high as the next largest contributor.

Both utilities and consumer staples had strong (over 20%) allocations in 2010, but both are now less than 10%.

Fig. 8 shows the cap-weighted, average, one year historical realized volatility of each sector in the FTSE Emerging. As with the US and Europe, the range of historical volatilities is narrow.

Fig. 8. The cap-weighted, average, one year historical realized volatility of each sector in the FTSE Emerging.

Table 2 shows the top 10 industries allocations (using the industry classification used by AXEM21-MH, Axioma’s Emerging Market Equity Fundamental Factor Risk model) as of 1/30/15 in our prototypical low volatility portfolio. These top 10 industries account for 88% of the portfolio. Notice that banks constitutes 32% of the allocation, while financials (the sector including banks) constitutes 40%.
Table 3. The 10 largest industry allocations in the prototypical low volatility portfolio taken from the FTSE Emerging.

Fig. 9 shows the allocation of these 10 industries in the prototypical low volatility portfolio over time. This graph largely mirrors Fig. 7.

![Graph showing allocation weights over time](image)

**Fig. 9.** The allocation weight to the 10 industries shown in Table 1 for the prototypical low volatility portfolio using the FTSE Emerging over time.
5. Comments

Globally since mid-2012, a notable change has occurred in low volatility:

- The allocation to financials has risen substantially, more than doubling in all three markets studied.
- The allocations to both utilities and consumer staples has fallen off drastically.
- The range of historical volatility has shrunk, so the gap in historical volatility between those equities considered “low volatility” equities and others with low historical volatility is quite narrow.

In other words, the allocation is concentrated rather than diversified. Furthermore, the rankings of low volatility stocks could be shuffled significantly with just a few days of poor market returns.

Is this a cause for concern? On the one hand, it may well be that this concentrated allocation, together with whatever changes occur going forward, still performs well; that is, captures the low volatility premium, since these allocations are, by definition, low vol.

On the other hand, to the extent that managers are actively controlling their sector and industry exposures, low volatility may be a difficult investment to manage.