A Shift in the Tides of Equity Markets

First Quarter Review and Outlook

Over the first few months of 2021, we are starting to see signs of what may prove to be a considerable shift in the behavior of small cap equity markets. With this overall theme in mind, we cover several important topics:

- Performance of Small Cap strategies during the COViD cycle
- Divergences between stable and volatile stocks in small cap
- The biggest rebalance of the Russell Indices in recent history
- How this ties together in our outlook and portfolio position
- Review of the performance of the Vitruvian Small Cap strategies
- Research projects in progress

2020

Obviously 2020 was a year like none in recent history. Regarding COViD and the human tragedy that it wrought upon our civilization we have little to offer that has not been said already.

COViD made 2020 a year like none in recent history for small cap equity investors as well. For the calendar year, the average fund in the Morningstar Small Cap Blend category underperformed the Russell 2000 index by over 10%!! Such performance deserves further investigation.

We downloaded mutual fund holdings for all the funds in the Morningstar Small Blend Universe at the end of 2019 and each quarter in 2020. We aggregated these holdings into two portfolios, one where each fund is equally weighted, and one weighted by AUM.[1] We ran performance analysis using the Axioma Fundamental Small Cap Risk Model.

The first observation is that the AUM-weighted portfolio only underperformed the Russell 2000 by 3.7% versus 10% for the equal-weighted Morningstar category.[2] This difference implies that the liquidity constraints of larger funds helped their performance in some way. It also implies that much of the performance in the small cap universe came from a limited number of larger stocks.

More interesting is the main contributor to the underperformance of both portfolios: volatile stocks. In 2020, volatile stocks outperformed stable stocks by over 15%[3]. Typically, this style factor works the other way around – stable stocks outperform volatile by about 3-5% a year. Many funds lean into this tailwind for a bit of extra return, but in 2020 it became a gale-force headwind.

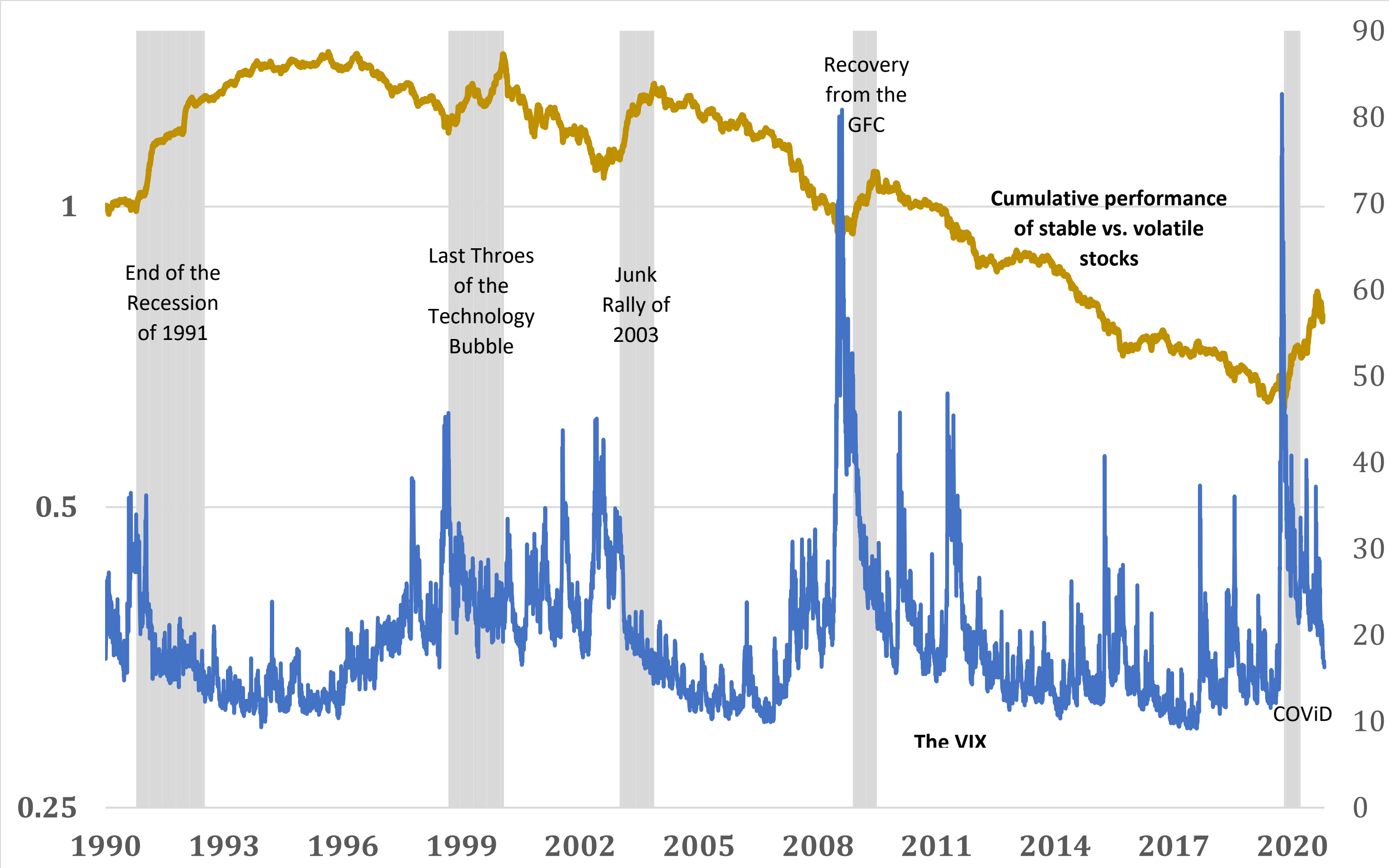
Volatility and the volatile

Rallies in volatile stocks are few and far between, and usually associated with an economic or market cycle. We can remember them all very well.

The gold line in Figure 1 shows the cumulative returns of volatile small cap stocks relative to stable small cap stocks, as measured by the Axioma Volatility Risk Factor.[4]

The COViD crisis of 2020-2021 neatly fits in with other economic events that catalyzed volatility spikes. The market follows a typical pattern: once confidence in a recovery emerges, volatile, low quality 'junk' stocks lead the rally.[5]

[1] We removed all index-based mutual funds.
[2] The equal weighted portfolio reflects the performance of the average fund in the category.
[3] As measured by the Axioma Volatility Risk Factor in the Axioma US Small Cap Risk Model
[4] Without going into the vagaries of risk models and factors, using the volatility factor has the extra benefit of removing the effects of many other effects such as value, size, or momentum.
[5] They usually pass the baton to value stocks after that.



The CBOE Volatility Index, commonly known as the VIX, a measure of broader market volatility, helps indicate the turns in these market cycles. Stable stocks provide their usual extra performance during periods where the VIX remains at 'normal' levels.[6] If a market or economic catalyst triggers a sharp rise in the VIX index, typically to 40 or more (82 during the height of the COViD crisis, 84 during the GFC), stable stocks will continue to perform through the crisis *up until the point where the VIX establishes a downtrend back toward normal levels.*

Then the 'junk' rally begins. Volatile stocks begin to outperform stable stocks, often dramatically. How long the rally lasts differs in each cycle, but generally once the valuations of volatile stocks become stretched, the party comes to an end and stable stocks resume their role in supporting returns.

There is little reason to believe that this cycle will be any different. When the Federal Reserve stepped in to support markets, the VIX quickly began to drop, and the rally in volatile stocks began. The rally accelerated during the fourth quarter of 2020 and carried through into early 2021, pushing the valuation of volatile stocks to at all-time highs. With the turn in interest rates and the term premium, the rally looks like it has run out of steam.[7] If recovery-fueled fears of inflation are realized, pressure on these volatile stocks, most of which are high-octane growth

[6] Usually in the 15-20 range, but sometimes lower

[7] It looks like the peak was the second week of February. Interest rates began to rise in earnest around then. Growth stocks are like long duration bonds – rate changes hit them the most.

stocks with considerable sensitivity to interest rates, will intensify.

The Russell Reconstitution

The extremes of market behavior over the last 12 months have introduced another tidal shift in the small cap landscape for the upcoming quarter: a dramatic Russell rebalancing. At the end of every June, the Russell indices reconstitute themselves along their targeted market cap guidelines. The host of portfolios and index funds that follow these indices passively are forced to adjust their holdings to reflect the new benchmarks.

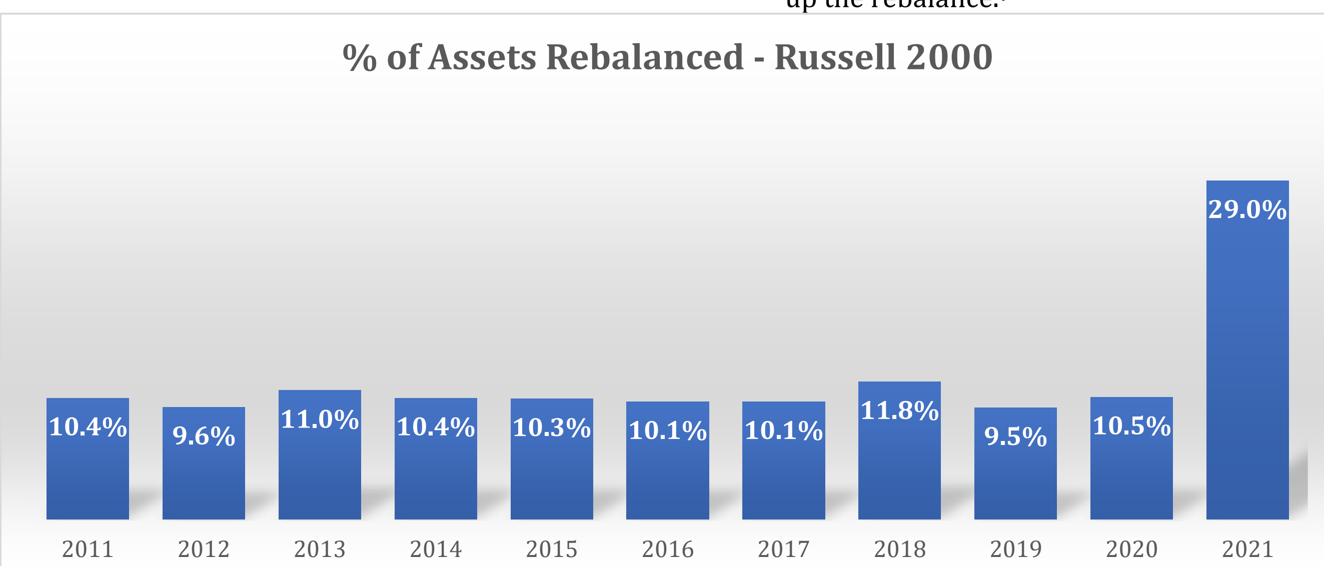
The volatile growth stocks mentioned in the previous section represent a large weight in the current Russell 2000 index. Since their market capitalization will exceed the upper limit of the new Russell 2000[8], many will transition into Russell 1000 on June 25th.

Now this phenomenon is nothing new. The Russell guidelines are well established and public. This year, thanks to the massive appreciation of small cap stocks since July 2020, and the ever-growing share of the market contained in passive products, this year's rebalance will be one of the most dramatic ever. Typically, about 10% of the Russell 2000 index changes each summer. This summer, we estimate that nearly 30% of the benchmark will turnover, with more than 20% graduating up the Russell 1000.

For those strategies that benchmark themselves against the Russell 2000, the dynamics of this rebalance will determine relative performance for the second quarter. Active managers have a choice: hold some of these larger, volatile growth stocks and keep their returns closer to the index or shun them and favor true small cap investing.

For several reasons, our perspective is that the graduating stocks that have led small caps through February, are likely to give back some of that performance, and our Small Cap Equity strategy underweights them appropriately.

1) Our signals agree that these stocks are likely to be weaker.
2) Generally, stocks graduating to the Russell 1000 underperform in the period leading up the rebalance.[9]



[8] It is a moving target, but will likely be about $7 billion

[9] The math works something like this: The Russell 2000 index funds have similar or higher asset levels than the large and mid-cap Russell 1000 funds – the S&P 500 dominates the index space for larger firms. A graduate goes from being a big fish in a larger pond of small fish, to a small fish in a smaller pond of big fish. As such, a .5% weight in the Russell 2000 suddenly becomes a .01% position the smaller Russell 1000 asset base.

3) Passive funds based on the Russell 2000 grew considerably in the past year, exacerbating the effect of the reconstitution.
4) We designed our process to select small cap stocks –the graduating stocks no longer qualify as such.
5) Stock selection methods are more effective in smaller, neglected stocks. These stocks have drawn a fair amount of attention (One of them is GameStop. Another is Penn National Gaming)

Many investors are aware of the nature and timing of the rebalance, and as the quarter moves forward, more and more assets will flow towards the new members of the Russell 2000 and away from the stocks leaving the Russell 1000. If you care to watch this in motion, keep an eye on the small cap version of the FANG stocks – 5 stocks still in the Russell 2000 that have far outgrown it and as a function of their size and volatility, will have the greatest effect of the relative performance of the new Russell 2000 versus the old Russell 2000.

GME – GameStop
PLUG – Plug Power
PENN – Penn National Gaming
CZR – Caesars Entertainment
NVAX – Novavax

Small Cap Equity Review

The Vitruvian Capital Small Cap Equity Strategy returned 14.19% (gross) in the first quarter of 2021 versus 12.70% for the Russell 2000, outperforming by 1.49%. Such performance constitutes a solid return in most periods, but for a period when most active managers performed well in the small cap space, our performance was firmly 2nd quartile. 2021 started just like 2020 ended, with lower quality stocks continuing to outperform through the second week of February. From here, the trend reversed, and quality firms led the way for the rest of the quarter. For our portfolio, this swing ended up being a wash.

Other biases that our portfolio has were beneficial, including a tilt towards smaller, less liquid firms, and a bit of help from value.

Exposure to cyclical firms such as chemicals and distribution firms added to performance, while growthier segments like software were a drag. We held positions in a couple of regional bank ETFs to maintain a neutral stance in this illiquid sector – this move proved to be prudent.

Table 1: Top 5 Contributions to International Small cap Equity Performance

JTekt Corporation	6473-JP	Excellent results for 2020, Guidance raised
Lynas Rare Earths	LYC-AU	Profits rise in line with prices for Rare Earths
Gamesys Group	GYS-GB	Acquired by Ballys in merger of gaming firms
Zooplus AG	ZO1-DE	Record setting 2020 for pet supply firm. Ambitious goals for 2021
Hope Education	7165-HK	M&A in HK education sector picking up post COViD

International Small Cap Equity Review

The Vitruvian International Small Cap Equity Strategy returned 6.41% during the 1st quarter of 2021, outperforming the MSCI EAFE Small Cap Index return of 5.11% by 1.30%. The international small cap investing space is not plagued by the same degree of market volatility that the US domestic market is, a topic worth exploring in the future.

We remain slightly overweight Japan, and slightly underweight the UK and Europe. These positions had little effect on performance. The US dollar was strong against most currencies with little differentiation between them.

As a result, nearly all our performance was derived from individual stock holdings. (please see Table 1 on Page 5) Each of these positions contributed .2 to .3% of performance.

Development Projects

We continue to upgrade our investment process with a focus on capabilities with tools that have the following qualities:

- Focused on the selection of individual positions, not based on broad-based qualities or 'factors'.
- Nascent in the investment community such that investors have not arbitraged their effectiveness away through widespread deployment.
- Derived from or represent insight into a firm's future.

Current projects include:

- Extending our text analysis algorithms to additional areas such as international, and Environmental/Social/Governance disclosures.
- Deploying our machine learning tools to forecasting reaction to quarterly earnings reports.
- Uncovering sources of data insight international markets.

Finally, we have a new website, please take the opportunity to check it out.

www.vitruviancap.com