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Memorandum

Date: June 8, 2023

To: Joe Rinaldi

From: Domenic Procopio

Re: Navigating a New Risk Paradigm

Overview

1. Dissecting the extreme and persistent volatility
2. Key drivers of today's volatility
3. Portfolio considerations for the new market

A New Age of Volatility

Treasuries were about 70% more volatile than they were on average previously. Prior to the global financial crisis, there were only 15 volatility shocks, since that time there have been 58 volatility shocks with 12 of them happening in the past 12 months alone. Volatility spikes with a rapid drawdown in prices as the tail event leave portfolios exposed to a price decline. When we think about asset allocation, fixed income is usually our hedge. There is now more tail risk in fixed income than we have had in the past. The correlation between equities and fixed income is higher than we have seen in the equity market, meaning there is less diversification benefit.

The New Normal: More Frequent and Extreme Volatility

In the equity market, there is a 50% increase in frequency and severity of volatility shocks. When looking at asymmetric volatility, we should focus on the ratio of up market to down market volatility which has been increasing a lot. It's not just the level of market volatility that has a strange dynamic, but also the components. Sectoral dispersion; the ratio of highest performing to lowest performing sectors has been on the rise. Energy has been a dominant sector with everything else being far distant, but that has started to change in 2023. Something very different that is new is how much tail risk we now have to deal with.

Key Drivers of this New Volatility Regime

The two most credible drivers are institutional shift toward passive investing and a rapid increase in the number of retail investors.

The percentage of institutional assets managed in a passive format jumped to almost 50% of AUM market share. In 2000, 95% of assets were managed actively, while about half are actively managed now. Inelasticity represents how many dollars it takes to move the market 1%, now it takes a lot fewer dollars to move the market 1% as inelasticity has risen. This is largely due to a lot of people drawing their focus away from price discovery. More and more, we are seeing retail investors being the driver of price discovery with one piece of evidence being the rise in ETFs which has increased by sevenfold since 2000.

One very credible explanation is that we have different investors setting prices, participating in the price discovery process. The other reason is that volatility selling has become very mainstream. It has also become very profitable to sell insurance into the equity space. It has increased dramatically over the past 15 years. When things go bad and investors have to hedge, they have to trade in the underlying markets, exacerbating any market drawdown. The last possible driver is algorithmic trading. If volatility spikes, any liquidity would be withdrawn.

Asset Allocation may not be Enough

There is more tail risk in both equity and fixed income markets. Over the last couple of decades, it has been harder and harder through asset allocation to achieve the same level of return. Before, all you had to do to receive a 6% return was put money in investment grade bonds, now you have to get very creative with asset classes and diversification to get you to an acceptable level of volatility, which is 11.4% at best. Essentially, those correlations have shifted over the past 15 years. Many managers investing into asset classes they do not fully understand has had material implications for the total risk of the portfolio. Another way of looking at this, is to go into alternative assets or increase the portfolio's composition of fixed income to mitigate risk.

Portfolio Considerations for this New Market

When we think about equity risk we often just think about market risk, but today we have much more granular precision that can be used to look into other aspects such as size, sector, div yield, country exposures, etc. When we do this decomposition, some of these risks come with return potential, but many of them do not. If there is any trend in portfolio construction, it is how to be more careful with granulated risk.

Most portfolios are a wash in uncompensated risk. Portfolio factor analysis lets us separate risk into categories to find a breakdown of what has the most risk. What we can do is assess or quantify the risks we are taking. Taking a large size exposure, i.e., lower momentum, higher size, higher volatility, and lower quality, are all problems that need to be corrected. However, corrective action is fairly easy by doing a factor analysis.

Another approach that is more straightforward is taking compensated factors. There is a broad industry consensus that if we are headed anywhere in a macroeconomic sense, it is towards a recession. If you have a shortfall, there are effective levers to pull to make up for it. One is to think about the return potential of segments that have high value and a high dividend yield, as they have proven to be safe investments in times of economic contraction.

Low volatility strategies are rising in popularity because there is more downside volatility than upside volatility in markets currently. With a higher frequency of shocks, lower volatility strategies have proven to be more beneficial in the long term. It is important to note that there is no connection between low volatility and low beta. Low volatility means a symmetric beta to protect against the downside, and balance out a portfolio. Low volatility strategies have outperformed the benchmark; lower risk has increased returns, and critically, this may be the perfect application for factor strategies. By implementing a low volatility strategy, you can go from 17% to 13% current volatility simply from fulfillment, which eases the stress on all parties.

Summary

In summary, we have a new kind of risk. Our expectation going forward is that what we are seeing in the markets now is only the start of the new volatility regime, and a reversal to the past is not expected anytime soon. We have to strongly consider what we are putting in our portfolios at these times. The most important consideration is that we want to get paid for the risk we take, and as an industry, we need to think about individualizing that risk to better mitigate it.

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