Q1 2018

EQUITY MARKET STRESS MONITOR

A Perspective on the Current Stability of Global Equity Markets

The Intech Equity Market Stress Monitor is a collection of five metrics we believe are reliable indicators of equity market stress based on Intech's 30-year history of studying volatility. You can use the monitor to gain insight to market risk regimes, contextualize beta risk management and complement your conventional risk metrics.

Executive Summary

- The strong equity rally reversed quickly in February as volatility spiked for a short period, reflecting abrupt and large price declines. After recovering all of their losses, markets sold off again toward the end of March as global trade tensions intensified. While not unusual in equity markets, these sell-off episodes came after a long period of subdued volatility.
- Our equity market stress metrics – measured against various indexes – continue to exhibit extreme levels when compared to history. The greater the deviation versus history and the longer it persists, the more likely it is that the return to the norm will be abrupt and accompanied by substantial volatility. This is similar to what we observed briefly in February and toward the end of the quarter.
- While most of our market stress metrics have not changed significantly since the end of last year, we are seeing an increase in capital concentration, especially in the U.S. and emerging markets. In the U.S., this increase in capital concentration is partly due to the continued strength in mega-cap technology stocks. However, the tide may be turning for the big information technology stocks, which suffered steep declines toward the end of the quarter, as technology firms are expected to face tighter regulation.
- Consistent with what we observed over the last few quarters, non-U.S. developed equity markets, in particular European equity markets, appear to have the risk measures at the most extreme levels.
- Overall, investors should continue to prepare for the less likely but more significant move downward in global equity markets given that extreme readings continue to exist within and across indexes.

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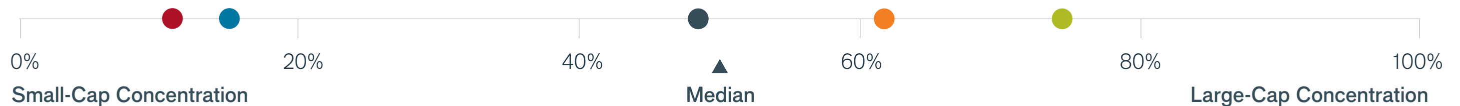
Intech Equity Market Stress Monitor Data as of 3/31/2018

We've identified a collection of risk metrics that we believe are reliable indicators of equity market stress. For each of these metrics, our observations have shown that when markets deviate substantially from typical levels, they eventually return to it. Moreover, the greater the deviation and persistency of extreme values across a larger collection of metrics, the more likely it is that the return to the mean will be abrupt, and accompanied by substantial volatility.

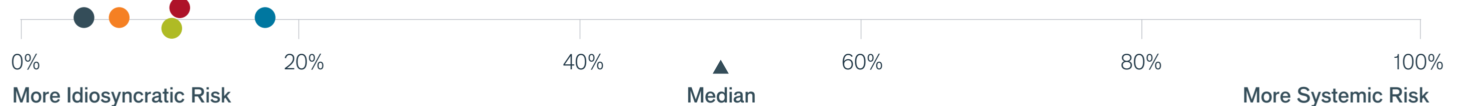
Capital Concentration

Do winners take all? Capital concentration measures how the capital is distributed among stocks within an index. An increase means that more capital is allocated to larger cap stocks. A decrease indicates that capital is moving to smaller cap stocks. Our research has shown that the capital distribution among stocks is remarkably stable over the long term and tends to revert to median levels.



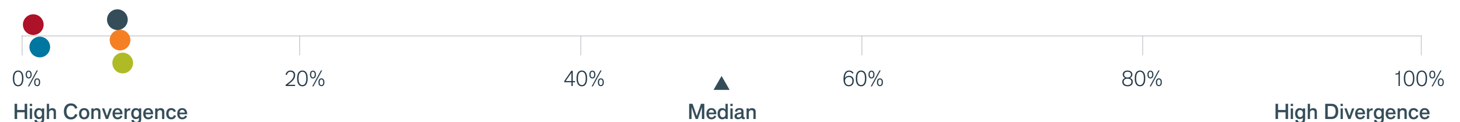
Correlation of Returns

How similar are stocks' absolute returns? Correlation measures the market-weighted average pair-wise correlation of stocks in the index. It quantifies the similarity of stocks' returns, as a fraction of their volatility. As correlations rise, stocks' returns tend to move in tandem with each other as the common component of return – the market – begins to dominate. As correlations decline, stocks' returns exhibit less similarity between stocks because idiosyncratic factors dominate the market component.



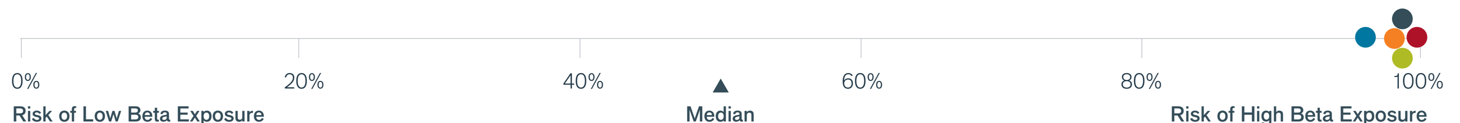
Dispersion of Returns

How different are stocks' relative returns? Also known as cross-sectional volatility, dispersion measures whether stocks' returns relative to their benchmark are converging (low dispersion) or diverging (high dispersion). As dispersion increases, underlying stock or portfolio returns begin to diverge from the overall benchmark. We find that the market eventually reverts to long-term levels when return dispersion is substantially low or high, which is associated with strain on the market.



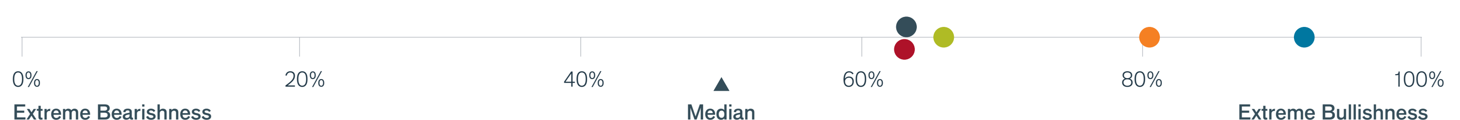
Index Efficiency

How much beta risk should you take? Market efficiency measures the level of index diversification versus the potential diversification available given the volatility characteristics of index constituents. Low market efficiency makes it possible for a skilled manager to achieve above-market outcomes with lower beta exposure, but the risk is lower upside capture potential. Conversely, high market efficiency means that reliably outperforming the index requires a manager to have similar beta risk, exposing a portfolio to higher downside capture.



Skewness of Returns

How fat are the tails? Skewness measures the asymmetry of index returns around the mean. Logarithmic returns tend to exhibit a left-skewed distribution, meaning the most extreme returns are below the mean, as investors tend to react more strongly to negative news. When there is irrational exuberance among investors, market returns tend to become less negatively or, even, positively skewed. Conversely, low levels of skewness often coincide with the market shock itself, and eventually manifest into positive outcomes as markets stabilize.



MSCI World   MSCI EAFE   S&P 500   MSCI Europe   MSCI Emerging Markets

Regional Insight by Index

● Global Equity Market – MSCI World Index

- Three of our risk metrics measured on global developed equity markets continue to point to extreme levels.
- Correlation of returns and dispersion of returns are both exhibiting low levels when compared historically, dating back to 1992. Effectively, while the low correlation level shows that stocks have been behaving more independently than the market, the cross-sectional volatility level in the market remains low.
- The market concentration, which reached a low level in July 2015, has been increasing since then as we are seeing more concentration in global developed markets, driven especially by the strong leadership of some mega-cap U.S. technology stocks.

● Non-U.S. Developed Equity Market – MSCI EAFE Index

- International equity markets continue to demonstrate strain with four of five risk indicators deviating significantly from their median levels.
- While concentration of capital has increased in U.S. equity markets, it has been trending lower in non-U.S. developed markets since 2013 as capital continues to move to smaller-capitalization stocks.
- As stocks' excess returns continue to converge in this universe, the dispersion of returns is reaching a very low level with a value ranking in the 0.5th percentile, based on measures since 1992.

● U.S. Equity Market – S&P 500 Index

- Intech's U.S. risk indicators continue to reside comfortably within extreme levels in four out of the five metrics.
- Capital concentration has increased the most since the end of the year, largely attributable to the continued strong leadership from some large technology stocks over the past 12 months. Concentration has now moved into the upper two quintiles for the first time since 2013, continuing on an upward trend that began about two years ago.
- We observed a slight uptick in the dispersion of returns measure since the end of the year, confirming an increase in cross-sectional volatility during the quarter. Despite the uptick, stocks' relative volatility in the U.S. still remains low overall, reflecting a market that continues to be driven by sentiment and macroeconomic dynamics rather than stocks' underlying fundamentals.

● European Equity Market - MSCI Europe Index

- The European equity market continues to exhibit the most market strain, with all five risk metrics pointing to extreme levels.
- Unlike U.S. equity markets, the European equity market exhibits more diversification and lower capital concentration in larger-capitalization names. In fact, the concentration of capital has been trending down since the fourth quarter of 2012 and currently ranks in the 15th percentile, based on measures since 1992.
- The high level of index efficiency suggests that a portfolio needs to take more beta risk in order to improve the risk and return efficiency of the market. This generally results in a higher portfolio risk should there be a sharp market drawdown.

● Emerging Markets Equities – MSCI Emerging Markets Index

- While signs of strain remain lowest in emerging markets, the MSCI Emerging Markets Index demonstrated some of the biggest changes in certain market stress indicators since the end of last year.
- Capital concentration continued on the upward trend that began in early 2016 during the first quarter, and now ranks near the top quartile when compared to all historical observations. The last time capital concentration ranked as high as it does now in emerging markets was in mid-2007.
- Correlation of returns also declined notably during the first quarter, signifying that stocks continue to demonstrate more idiosyncratic risk in emerging markets.

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