LOW VOLATILITY STRATEGIES

BACK IN THE LIMELIGHT

Volatility has made a comeback. Given still healthy market fundamentals, low volatility strategies can help investors stay invested while minimising the volatility in their portfolios.

After an unusually calm period for equity markets in 2017, volatility has made a comeback. The CBOE's VIX index, a measure of implied volatility for the S&P 500, is averaging around 18% year to-date, an increase of more than 60% from last year's average level. In Asia, there have been 18 swings of at least 1% on the MSCI Asia Pacific ex Japan index in the first four months of this year, up from 14 for the full year of 2017.

High levels of liquidity have been suppressing volatility since 2010. The unwinding of the US Federal Reserve's balance sheet, trade tensions between China and the US as well as geopolitics have led to recent spikes in volatility. (See fig.1). Given these lingering concerns, investors will need to brace themselves for further volatility ahead.

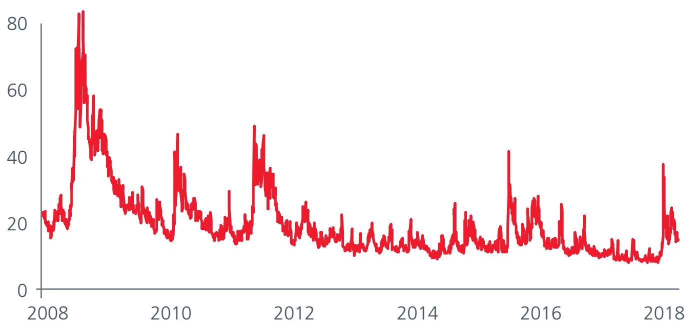
At the same time, equity market fundamentals appear healthy. Asian corporate earnings are expected to grow by 13% over the next 12 months. Asia ex Japan equities are attractively valued compared to global and other regional markets. At 12.9x 12-month forward price to earnings[2], the MSCI Asia Pacific ex Japan index is trading below its long term average, which has historically presented an attractive entry point for investors. With valuations suggesting that Asian equities can continue to trend higher, investors likely want to stay invested but minimise the volatility in their portfolios.

LOWER VOLATILITY, HIGHER RETURNS

Low volatility strategies contravene one of the basic theories in finance – that investors should not be rewarded with higher returns for taking on less risk.

What is even more remarkable about this anomaly is that it is persistent and comprehensive. Academic research as early as 1967[3] supports

Fig.1: Market volatility (VIX) is rising[1]



the low volatility anomaly. Our analysis of the performance of the largest 500 US stocks from 1973 to 2016, shows that low volatility stocks outperformed higher volatility stocks. (See fig.2). Further analysis shows similar results across multiple regions and countries.

The higher return-lower volatility characteristics result in higher Sharpe ratios for low volatility stocks, of which the figures for Asia can be seen in Figure 3.

The persistence of the low volatility anomaly is an ongoing research topic for academics and practitioners alike, but there is reason to believe it is partly driven by behavioural biases. **Some of these biases include the following:**

Lottery effect Investors tend to overpay for risky stocks in the hope that they yield large returns even though the probability associated with achieving those returns may be low. Conversely investors tend to ignore lower risk stocks which deliver lower returns even though the probability of achieving those returns may be higher.

Representativeness Studies on behavioural finance suggest that the brain uses short cuts to analyse large volumes of information quickly. This results in stereotyping. This is why investors tend to overpay for high volatility stocks in glamorous sectors but ignore the speculative nature of such stocks.

Overconfidence An exaggerated belief in one's ability and skills can lead investors to favour risky equities as those stocks will potentially offer the highest payoff if the investing hypothesis turns out to be right.

STABILITY WINS

Low volatility Asian stocks have historically outperformed the broader market in most up and down market environments, except in cases where the 1-year returns from Asian equities were abnormally strong, in excess of 20%. (See fig.4).

By simply replacing some exposure in Asian equities with a low volatility Asian equity strategy,

Fig.2: Low volatility stocks outperform high volatility stocks[4]

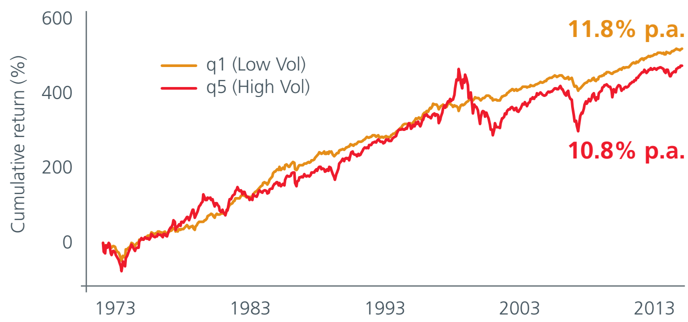


Fig.3: 10-year Sharpe Ratio[5]

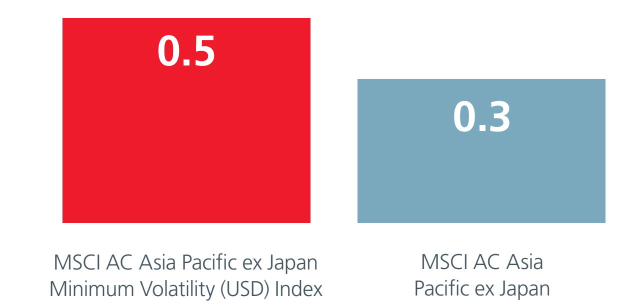


Fig.4: Performance of low volatility Asian stocks in different market conditions[6]

MSCI Asia Pac ex Japan (1 yr rolling returns)	<-20%	-20 to -10%	-10 to 0%	0 to 10%	10 to 20%	>20%
No. of Observations	8	16	13	25	28	20
No. of instances where low vol Asian stocks outperform	8	15	10	20	17	1
% of low vol Asian stocks outperforming	100%	94%	77%	80%	61%	5%
Average outperformance of low vol Asian stocks	4.5%	6.4%	5.2%	3.8%	3.1%	0.3%

the resulting portfolio can achieve higher returns but with lower volatility. (See fig.5).

Staying true to its name and falling less during turbulent times, a low volatility portfolio needs only to rise by a smaller magnitude in order to return to the same level. Through compounding, the low volatility portfolio potentially accumulates more wealth over the long term. (See fig.6).

Low volatility strategies help temper the volatility in portfolios, thereby allowing investors to stay comfortably invested during turbulent times. By not trying to time the market, investors reduce the risk of missing the market's best days which can significantly lower their overall returns. An investor who started with $100k and stayed invested in Asian equities over the last 15 years, for example, would have earned $172k more than someone who missed the market's 10 best days. (See fig.7).

VALUATIONS MATTER

As with all investment strategies, valuations matter. A study[10] which examined the risk and return outcomes of the lowest and highest risk quintile stocks in the US over 540 months (45 years) showed that while low volatility stocks tend to outperform high volatility stocks, they are most likely to do so when low volatility stocks are reasonably priced.

With the MSCI Asia Pacific ex Japan Minimum Volatility index trading at a 16% premium[11] (12-month forward price to earnings ratio) to the broader market, valuation considerations will be especially important. Active managers who are not constrained by the benchmark universe can have a broader opportunity set of more attractively-priced stocks to choose from to generate excess returns for investors.

CONCLUSION

Market volatility is likely to rise as central banks withdraw their unconventional stimulus. This will present a buying opportunity, as long as the spike in volatility does not adversely affect the real economy. Low volatility strategies allow investors to stay invested in equities but at reduced levels of volatility. Investors will also need a long-term horizon to enjoy the effects of compounding and benefit more fully from the low volatility anomaly.

Fig.5: A better risk-return trade off[7]

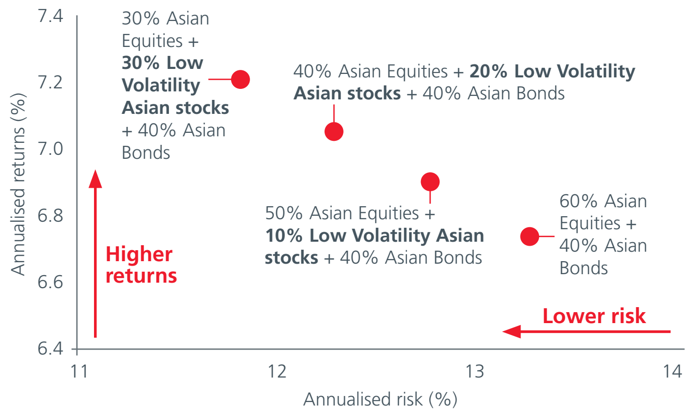


Fig.6: A low volatility portfolio typically recovers faster from market drawdowns[8]

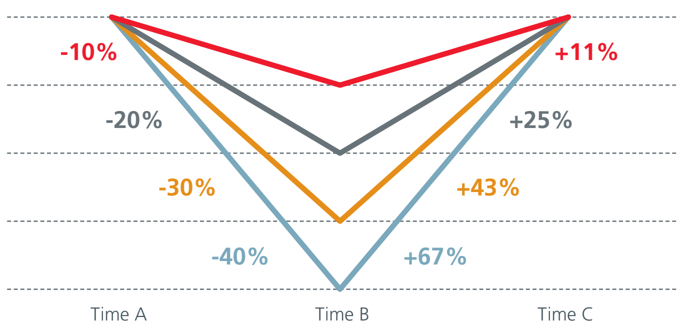
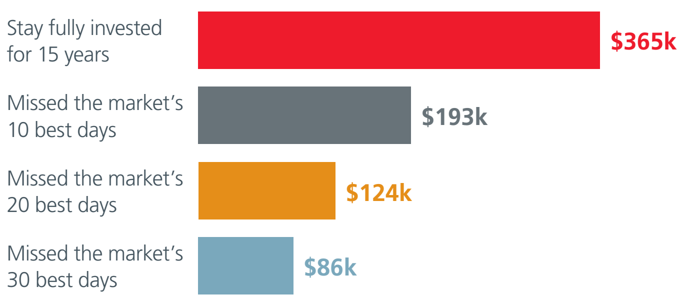


Fig.7: Ending portfolio value after investing $100k in Asian equities from May 2003 – May 2018[9]



Sources [1]Bloomberg. As at 2 May 2018. [2]MSCI. As at 30 March 2018. [3]Pratt, Shannon P. 1967 [2008]. "Relationship between Variability of Past Returns and Levels of Future Returns for Common Stocks." Business Valuation Review, Summer 2008, Vol. 27, No. 2, pp. 70-78. Written in 1967 (unpublished). [4]Eastspring Investments, Thomson Reuters, S&P. Based on cumulative sum of monthly quintile returns from May 1973 to December 2016. The lowest and highest volatility quintiles are shown above. Quintiles are formed based on the prior 60-day volatility. The universe is the largest 500 stocks listed on US exchanges at each date in history. This is an approximation for the S&P500 universe. [5]MSCI. As at 30 March 2018. [6]Bloomberg. Monthly returns from March 2009 – March 2018 in US dollars. Past performance is not a guarantee of future returns. Low volatility Asian stocks are represented by MSCI Asia Pacific ex Japan Minimum Low Volatility. [7]Datastream. Asian Equities – MSCI Asia Pac ex Japan. Asian Bonds – JPM JACI Investment Grade Corporates. Asian Low Volatility Stocks – MSCI Asia Pacific ex Japan Minimum Volatility. For a 10-year period as at 7 May 2018. [8]Eastspring Investments. The above is an illustration and should not be construed as an indication of fund performance. [9]Bloomberg. In USD terms. Asian Equities – MSCI Asia Pac ex Japan. Past performance is not a guarantee of future returns. As at 3 May 2018. [10]Luis Garcia-Feijoo, Lawerence Kochard, Rodney N. Sullivan, Peng Wang, 2015. "Low-Volatility Cycles: The Influence of Valuation and Momentum on Low-Volatility Portfolios". [11]MSCI. As at 30 March 2018.