Market Insights

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The end-game gets closer

As end-of-cycle risk increases, Seeyond says hedging can not only protects equity portfolios but can add alpha

Key takeaways:

- Stock markets are pricing in a lot of good news and any disappointment could negatively impact investor sentiment. With the cost of protecting portfolios against volatility low, this is a good time to hedge.
- There are two main ways to manage equity portfolio volatility. The first is by re-allocating to low-volatility stocks. However, for investors who are satisfied with their current equity allocations, an overlay solution may be best.
- An overlay strategy which purchases put options cheaply when volatility is low has reduced volatility from S&P 500 returns from 19.1% to 14.4%, while performance is not impacted. A Eurostoxx overlay does better still, reducing volatility and returning 3.3% a year, compared with 1.8% for investing unhedged.

Source: Seeyond as of 31st of March 2017

Eight years ago, the S&P 500 hauled itself off the bottom of the ocean and started to float upwards. Investors brave enough to peer into the murky depths of post-crisis seas and buy into the index in March 2009 have seen close to a fourfold increase in their money. The question today is whether stocks can continue this upward trajectory, or whether dark seas will once again reclaim them.

In other words, how do we deal with late cycle risk?

The question is often ignored by investors, who worry more about missing out on late bull run returns and overlook the risks to their capital. But the risks are rising and more investors are looking for a way to mitigate them.

How do we know the cycle is coming to an end?

The classic end-of-cycle indicators are price-earnings valuations at historic highs, rising volatility and weakening macroeconomic data.

If we compare the S&P 500 with its 12-month trailing earnings per share, we see a huge and widening gap between the two. Whereas up until two years ago, they were largely correlated, they have diverged rapidly since. Stock markets are clearly pricing in a lot of good news and any disappointment could negatively impact investor sentiment. Valuations are less stretched in Europe, although the price-earnings ratio is above the long-term average.

Emmanuel Bourdeix

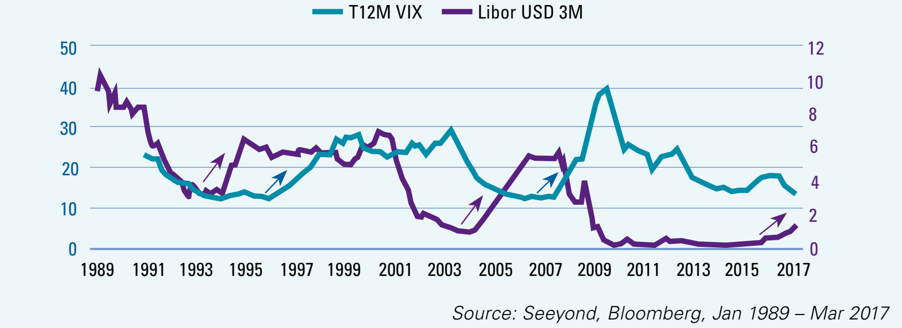
Director,

Seeyond

Next, consider the relationship between interest rate rises and market volatility. When interest rates hit their low point, and then turn upwards, volatility tends to rise too, with a lag of 2-2.5 years.

As the chart above shows, interest rates rose in 1994-1995 and volatility started a sharp ascent in 1996-1997, roughly two years later. The same pattern can be seen after the rate cycle turned in 2004.

Today, we see that rates have been close to zero since 2009. But they started trending upwards in late 2015. Volatility is currently very low, but will it remain subdued given the impact of previous rate rise episodes?



Source: Seeyond, Bloomberg, Jan 1989 – Mar 2017

Then there is the macro-economic variable. Markets have risen rapidly since late 2016, expecting considerable US fiscal stimulus following the US elections. But optimism is now fully priced in and any pullback from the ambitious fiscal plans could sow seeds of doubt in the minds of investors.

In addition, there is a material probability of a recession in US from early 2018. If the Fed hikes rates amid ongoing uncertainty– fundamentally and in relation to the promised stimulus – over the future of the US economy, growth may go into reverse.

So the risks are rising, but volatility – so far – has not. With the costs of protecting portfolios against volatility low, this represents a good time to hedge it. As we like to say: fix the roof while the sun is shining.

Hedging portfolio volatility: first solution

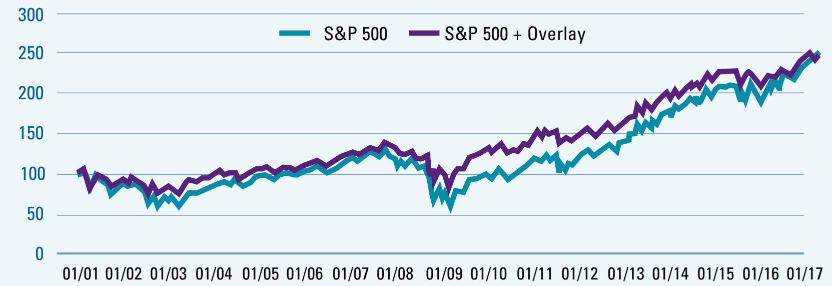
Two methods present themselves for managing equity portfolio volatility. The first, allocating to low-volatility stocks, is suitable for investors who are willing and able to re-orient their portfolios. If they have held stocks from the early stages of a bull run, they can take profits on some of their holdings and buy low-volatility stocks through, for example, a minimum variance strategy.

This selects stocks based on their low-risk characteristics, rather than via a fundamental approach.

A portfolio of low-risk stocks will contain companies which have both low volatility and low correlations to each other. Performance is not sacrificed thanks to the low-volatility anomaly, which has been identified in numerous academic studies and empirically.

The low-volatility anomaly overturns traditional modelling, which holds that higher return can only be obtained by taking more risk. In fact, over a full cycle, low-volatility stocks outperform while volatility can be reduced on average by 30%, and up to 40% in crisis markets.

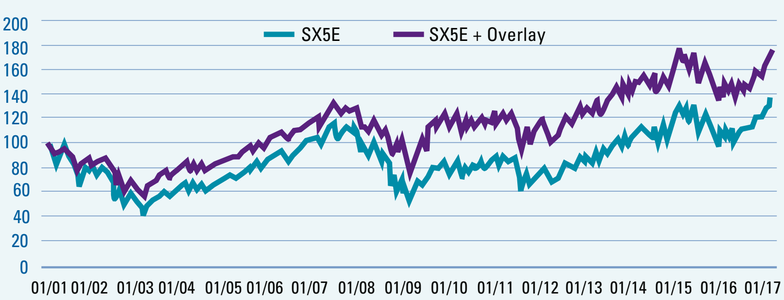
Performance Base 100 on 31/12/2000



Source: Seeyond, Bloomberg, Jan 2001 – Mar 2017

	S&P 500	S&P 500 + Overlay
Max Drawdown	-55.2%	-42%
Annual Performance	5.8%	5.7%
Volatility	19.1%	14.4%
Sharpe ratio	0.30	0.40

Performance Base 100 on 31/12/2000



Source: Seeyond, Bloomberg, Jan 2001 – Mar 2017

	Euro Stoxx 50	Euro Stoxx 50 + Overlay
Max Drawdown	-59.6%	-45.5%
Annual Performance	1.8%	3.3%
Volatility	23.7%	18.0%
Sharpe ratio	0.08	0.18

Hedging portfolio volatility: second solution

Other investors are satisfied with their current equity allocations and with their equity managers, so they may choose an overlay solution. The essential overlay strategy is to purchase put options cheaply when volatility is low and sell them when volatility is close to its high point – usually immediately after a major market drawdown. As the charts above show, the overlay solution reduced volatility from S&P 500 returns over the cycle from 19.1% to 14.4%. Performance, however, is almost identical. The Eurostoxx solution was even better, with the overlay substantially reducing volatility and producing performance of 3.3% a year, compared with just 1.8% for investing unhedged in the index.

Investors can get nervous when they know that upcoming market events – they are almost too numerous to mention right now - have the potential to create considerable volatility. This can lead to reactive portfolio adjustments which destroy rather than add value. Overlay strategies have reduced volatility during all major drawdown events over the past decade, as the table below shows.

Event	From	To	MSCI AC	MSCI AC + Overlay	Drawdown reduction
Brexit	23/06/16	27/06/16	-6.8%	-4.9%	28.0%
2016 Start	29/12/15	11/02/16	-12.5%	-7.8%	37.0%
Aug-15	18/08/15	29/09/15	-10.6%	-6.7%	37.0%
Oct-14	19/09/14	16/10/14	-8.3%	-6.1%	27.0%
Fed's Tapering	28/05/13	24/06/13	-7.1%	-5.5%	23.0%
Debt Crisis Revival	19/03/12	01/06/12	-12.6%	-10.4%	17.0%
Summer 2011	01/07/11	12/09/11	-16.0%	-10.3%	36.0%
Flash Crash 2010	15/04/10	07/05/10	-11.2%	-7.8%	31.0%
Lehman	02/09/08	09/03/09	-47.4%	-34.5%	27.0%

Source: Seeyond, Bloomberg, Jan 2001 – Mar 2017

A repeatable and customisable process

The concept of buying and selling options based on prevailing market conditions (and therefore the strike price of the options) is simple enough to grasp, but not always simple to execute. It requires a rules-based approach which is both disciplined and repeatable. This requires specific expertise in volatility management. As an active equity risk manager, Seeyond has deep knowledge of and skills in quantitative management and derivatives, with the aim of mitigating risk across our portfolios.
"For the overlay strategy, we use only listed options, rather than over-the-counter (OTC) options, which introduce counterparty risk into the transaction", says Emmanuel Bourdeix, Co-CIO Natixis Asset Management and Head of Seeyond. "That way, we make sure we are purely hedging equity risk, not trying to manage other risks, such as those posed by trading counterparties".

Specialist skill is also required to customise the overlay portfolio for each investor. Insofar as the relevant liquid options are available, it is possible to customise the overlay to any investment universe. That means exposure to all US and European indices can be hedged, and to many Asian indices too.
Alternatively, an index can be constructed using a basket of options, which is optimally correlated with the equity portfolio of an individual investor.

To illustrate the potential levels of customisation, let's briefly look at two examples.
In the first example, an investor has a portfolio of 50% US equities, 30% European stocks and 20% Asian stocks. Put options can be purchased to reflect exactly that allocation and hedge against falls in each of those markets.
In the second example, let's consider how we can calibrate the amount of hedging that can be put in place. A typical overlay might be created from 85% out-of-the-money puts. In essence, that means that the closer the benchmark falls to -15%, the quicker the overlay strategy appreciates in value. How much it appreciates depends on how far the market falls. On the other hand, some investors prefer a more defensive protection that appreciates earlier. This could imply buying 90% out-of-the-money options, which costs more, but provides protection against even modest market volatility.

Conclusion – mitigate risk, generate alpha

Volatility is both a risk to manage and an opportunity for alpha generation. This is never truer than when the end of a cycle is approaching and volatility starts to increase.

A disciplined overlay strategy can help investors avoid large drawdowns and therefore meet long-term growth targets. For investment functions answering to a board for their decisions, a robust and easily-explainable improvement to the return distribution could prove persuasive.

Seeyond is an investment division of Natixis Asset Management that focuses on active management through a quantitative approach.

Written on June 2017

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