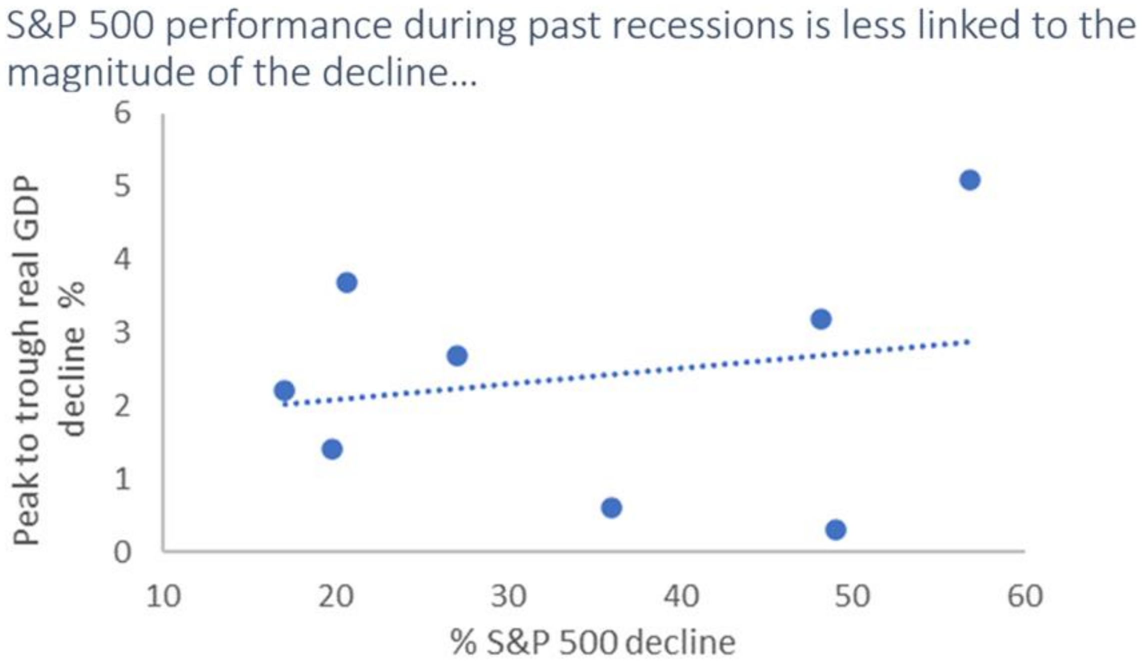
24th March 2020

Equity bear markets and recessions

In a bid to get lessons from the past, we've gone back and looked at the S&P 500 performance around the 8 recessions since 1950.

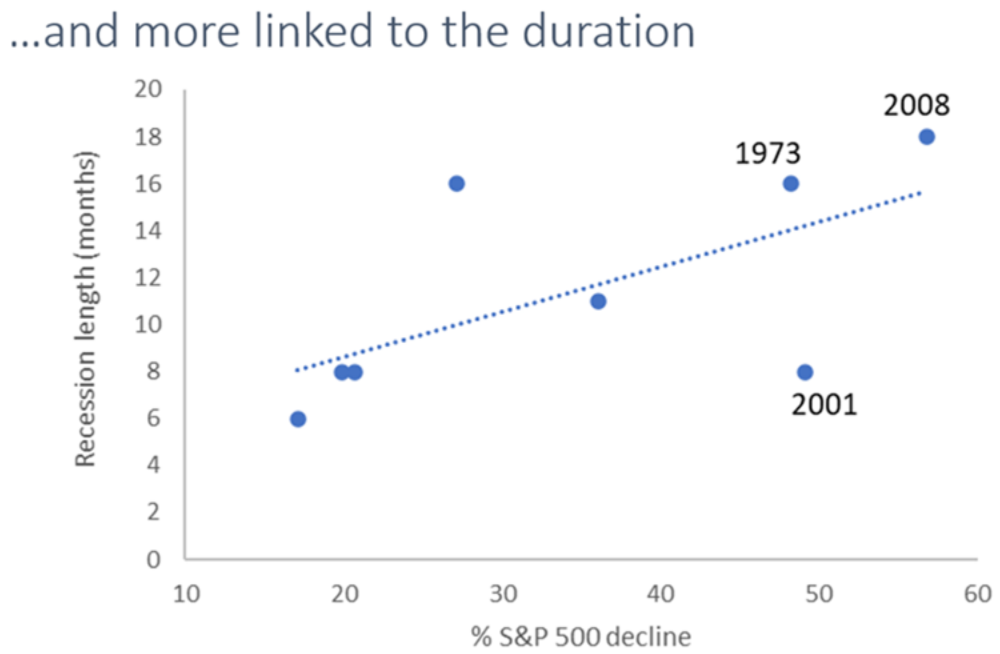
On this chart, the decline in GDP is on the y axis, and the decline in the S&P is on the x axis.



You can see from the chart that there is barely a relationship between the severity of the recession in terms of the magnitude of the peak to trough decline in GDP and the severity of the equity bear market. There is a mild upward slope in the best fit line, but the line is almost flat, which shows the relationship is very mild

There is however a stronger link between the length of the recession and the S&P decline.

You can see on the chart the best fit line is much more upward sloping.



In this cycle, we know we are going to get a very sharp recession, but it probably won't be long lasting.

If that is correct, history shows that we should avoid the severity of the stock market declines that we've seen during these long lasting recessions like 2008 (which went on for 18 months), and the one that started in 1973 (which lasted 16 months).

It's true that there was a major bear market during the TMT bust, and the recession then was short. But that was a bit of an outlier. The recession ended in 2001, but stocks kept falling throughout 2002 as the corporate governance scandals of Enron and WorldCom kept the market in free fall, as did the lead up to the US invasion of Iraq.

The bottom line is that provided this is a short recession, and assuming we don't get issues outside of the coronavirus popping up, like we did in 2002, it would be historically unusual to see stocks fall much further from where we are today

Timing equity bear markets with the VIX

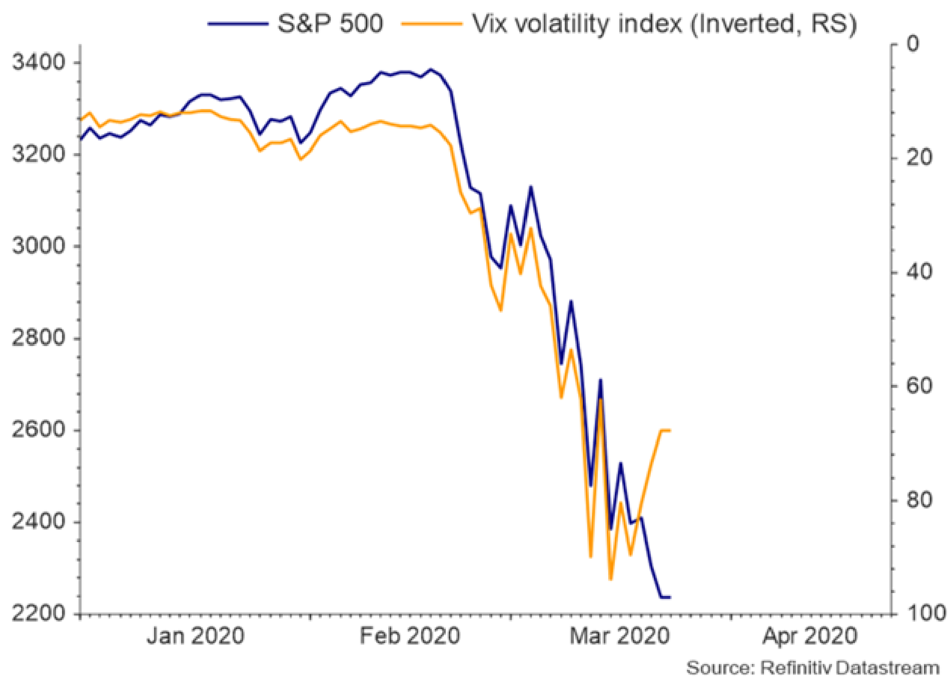
Looking backwards we are able to see that buying the stock market when the VIX reaches a historically elevated level has been a profitable strategy. The VIX is a measure of market volatility and often referred to as the panic indicator.

We have carried out some analysis around how markets have reacted and bottomed relative to the peak of the VIX.

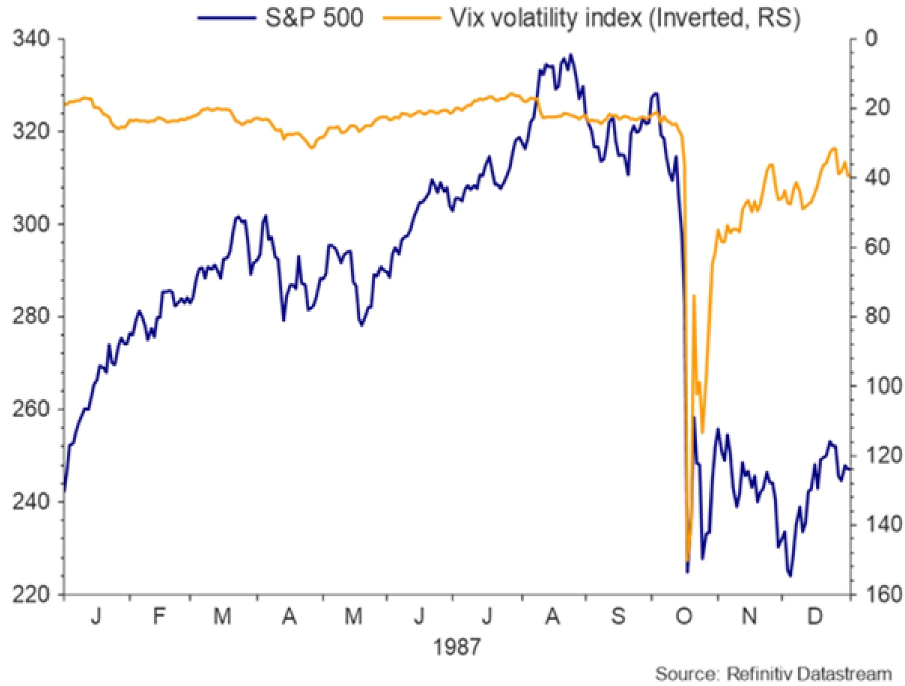
For reference, in this analysis we are using the original (old) VIX index. The reason is that there is more data history, with data back until 1986, which allows us to look at the 1987 bear market.

In the four previous cycles where the VIX crossed above 50, each time the S&P 500 bottomed after the VIX peaked and at a lower level compared to where it closed on the day the VIX peaked.

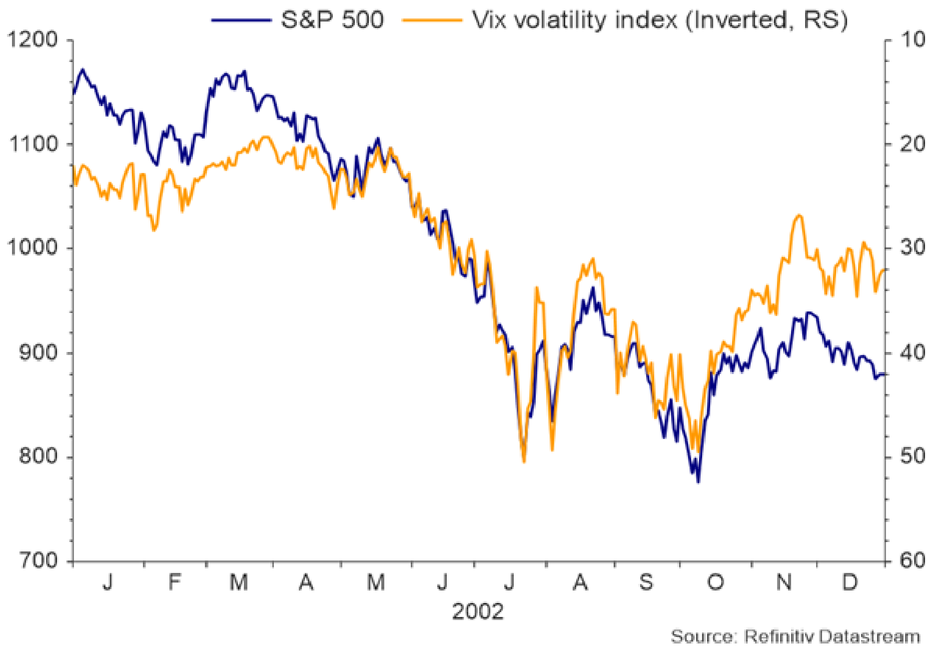
VIX and S&P 500 during coronavirus crisis



VIX and S&P 500 during Crash of 1987

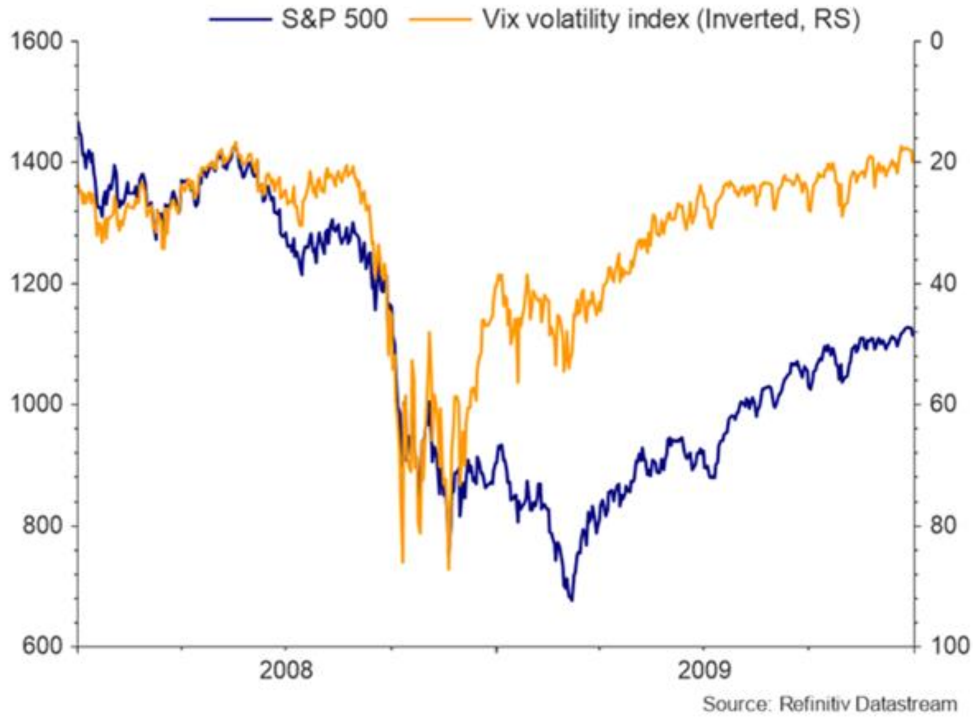


VIX and S&P 500 during TMT bust



BREWIN DOLPHIN

VIX and S&P 500 during GFC



VIX and S&P 500 during the Euro crisis

BREWIN DOLPHIN

The table below shows the number of calendar days that it took before the S&P bottomed after the VIX peaked - the average has been 72. The last column shows the average decline in the S&P 500 from the date the VIX peaked - the average has been 4%.

VIX above 50 and relationship with S&P 500

Vix trough date	S&P bottom date	Number of calendar days between VIX top and S&P 500 bottom	% decline in S&P 500 from VIX top until bear market low
19/10/1987	04/12/1987	46	-0.4
23/07/2002	09/10/2002	78	-2.6
20/11/2008	09/03/2009	109	-10.1
08/08/2011	03/10/2011	56	-1.8
	Average	72	-4
	Current cycle	7	-6.2

This cycle, it has been one week since the VIX topped out. As at the close last night the S&P 500 has moved 6.2% lower since then. So the S&P has already declined by more than typically occurs from a top in the VIX. Our sense is that there is probably not much more to go.

But we are only one week in from the top in the VIX. History shows that it takes longer for stocks to bottom. But this cycle is unique in terms of the speed at which things are moving - we would not expect it take as long for the stock market to hit its low in relation to the top in the VIX as it has in past cycles.

The conclusion is that absent a new shock, we are probably very close to the lows. But it could be a choppy bottoming process.

The caveat is that the VIX could move to a new high. While possible, we judge it to be unlikely. This cycle the VIX hit its high on a day when the S&P fell 12%. We think it's unlikely that we get back to this kind of volatility.