Leverage: Nothing is Good or Bad…

Leverage. It always gets blamed whenever bad things happen to investments and markets. But leverage in itself is neither good nor bad. Leverage is a magnifier of returns, both positive returns and negative returns. The idea behind leverage is that it can be used to make a small return into a big return. Here is how it works. You have 10 dollars. You want to invest 100 dollars. You borrow 90 dollars. You pay for the 90 dollar loan, you get paid, hopefully more than that on the 100 dollar asset. And if it doesn't you have negative gearing and you hope to high heaven that the asset appreciates in value. Of course asset values fluctuate.

Leverage is often quantified as the ratio between debt to equity. Another useful measure is simply asset value to equity. And here is why. If the ratio of your asset value to equity is P, then if the asset depreciates by 1/P, your equity is gone. Your concern therefore is that you are not levering an asset by P whose loss in value is likely to be anywhere close to 1/P, otherwise, you have lost everything.

So, if you have a volatile asset, you can leverage it more, and if you have a less volatile asset, you can leverage it less. It is that simple.

Here are two charts. The first is the VIX which is the implied volatility of the S&P 500 and the second is the realized volatility of the S&P500.

Looking at the VIX, it is obvious that you can afford to use more leverage in the years 1992 – 1997 and 2004 – 2007.

Looking at the S&P realized vol, the periods where you could use more leverage were the mid 1940's, the early 1950's, the mid 1960's, the mid to late 1990's and the mid

Noughties.

That’s all very obvious. Of course what is less trivial is when do you reduce your leverage? Volatility graphs are unique in that you can tell if you have been presented with one upside down. Volatility tends to spend more time declining than rising, but when it rises, it tends to do so very abruptly.

So, a few quick points about leverage:

- Don’t lever it if it’s too risky. The normal fluctuations of the asset price could wipe out your equity.
- Don’t lever it if it’s not liquid. When volatility spikes, you need to deleverage, and you can’t do that if it’s illiquid.
- Illiquid assets almost always look less volatile than they really are. There are technical, mathematical reasons for this. So if you are going to lever an illiquid asset, take care that you measure the volatility correctly.
- Volatility is an indication of risk. But apparently low volatility investments can be highly risky. If it’s volatile, it’s risky. If it’s risky, it may not be volatile. Ultimately it’s the potential downside and not the volatility that is important.
- If the asset is already risky or volatile, you don’t need a lot of leverage, or any leverage, to make a decent return.

Current market volatility is high which means that it doesn’t take a lot of leverage to make money. Or lose it.