



## FEATURE ARTICLE

Date: 22<sup>nd</sup> April 2015

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### Does Volatility Equal Risk?

One of the fundamental areas of analysis on which various risk profiling tools are built is volatility and I was asked recently whether I felt that volatility equals risk?

My answer was to initially consider what, in fact, risk involves? We can get an idea from its synonyms, hazard, danger, peril jeopardy. They all sound like reasonable explanations yet various areas of finance theory determine that risk equals volatility (or deviation or variability). But for me volatility is not necessarily the same as risk.

Volatility is a useful number if you are trying to measure risk as it is a number that is objective, can be obtained historically and can also be extrapolated into the future. The problem for me is that I don't necessarily believe that volatility is the risk from investment that most investors care about.

I have never met an individual who has come to me and said that they wanted to use volatility as a proxy for risk – it is the academics who have settled on volatility as a measure of risk and it is only when advisers discuss risk with them that clients begin to accept that this is correct.

For most clients rather than thinking about volatility they are, I believe, concerned with a potential loss of capital or an unacceptably low return. Ultimately for clients risk is the likelihood of losing money or not meeting an objective. Surely a volatile investment is merely one that, over a certain time frame, is more likely to result in a loss of money if a client were to cash in? (It must be remembered that volatility can be measured over various time periods using various data points.)

Investment risk in fact comes in many forms and might be defined as falling short of one's goal – which is obviously personal and subjective as opposed to absolute and objective. A given investment may be risky in this regard for some people but riskless for others. If money is needed to pay for a



wedding in the next couple of years then investing is not necessarily a good idea – unless you are prepared to accept the risk?

There are other forms of risk that need to be considered such as, for example, liquidity. As an example private equity might have a low volatility figure but that may be because it is not actually traded and priced that often and there is therefore liquidity risk.

One might also, following the events in 2008, consider counterparty risk and the likelihood of a counterparty defaulting which is not reflected in a pure volatility number? You then have areas such as inflation risk, interest rate risk etc. etc.

Another important area that should I think be analysed when considering risk is “underperformance”. Most investments will be measured against an index or benchmark or sector. If an investment deviates from the index or benchmark there are likely to be periods of underperformance – this is “benchmark risk”. This can be eliminated by emulating the index or benchmark but this may not be the best course of action. Some of the greatest investors are therefore likely to have periods of significant underperformance. As an example consider Warren Buffett and his “underperformance” in 1999 – in that year Buffet’s underperformance denoted a refusal to participate in the tech bubble.

One should also potentially consider risk in terms of asset class or stock specific risks. Diversifying your portfolio may not be the sexiest of investment topics. Still, most investment professionals agree that while it does not guarantee against a loss, diversification is an important element in helping individuals reach their long-term financial goals while minimising the risk. It is important to remember, however that no matter how much diversification you do, it can never reduce risk down to zero.

The bottom line is that investing ultimately consists of precisely one thing – dealing with the future. It is because the future is uncertain that when investing risk is inescapable.

Investment theory holds that because of their dislike of risk investors in effect have to be “bribed” with higher prospective returns to take incremental risk. In this respect economists have come up with the term “equilibration” as the process which renders prospective returns proportional to risk. Equilibrations suggests that if you have two assets, say a Treasury Stock and a smaller company equity which overall are expected to provide the same return then everyone would rush to buy the Treasury Stock (driving up its price and reducing the return) and sell the latter (driving down the price and thus increasing the perspective return).

Of course if it were that simple life would be a whole lot easier. Risk is not just about the perspective return but how one is expected to get there – hence the use of volatility.



The problem is that if riskier investments reliably produced higher returns then they wouldn't be riskier! The fact is that in order to attract capital riskier investments have to offer the prospect of higher returns but there is absolutely nothing to say those higher prospective returns will materialise. Riskier investments are those for which the outcome is less certain; that is the probability distribution of returns is wider or volatility is higher.

In my experience practically all quantitative measures rather than qualitative measures of risk are broadly based on some type of volatility calculation and that is fine but as ever is not the whole story if you are considering "risk".....

Ultimately we must note that risk is personal to a client, to their experience, aims and objectives, capacity for loss etc. and volatility is simply a quantitative measure of risk that, together with other factors, can be used to try and ensure that appropriate investments are selected for a client?

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