

Evidence for the stability of risk tolerance

Angela Ashton | PortfolioConstruction Forum | 09 July 2014

“Do Large Swings in Equity Values Change Risk Tolerance?” by Michael Guillemette and Michael Finke & “Evidence for the Stability of Risk Tolerance” by Finametrica

There has always been significant anecdotal evidence that investors become more risk averse during or after market falls, but happy to load up on equity risk while markets rise. This view is reinforced by studies that show that investors tend to underperform markets due to their trading activity.¹

The Global Financial Crisis was a severe and extreme set of events. It was (or is) likely to be a once in a lifetime occurrence, or so we hope. And, it was also the first market crisis where we had good risk profiling tools in place across a large enough sample size to properly analyse the risk metrics of clients. So, it's no surprise that there have been a quite a few research papers recently on risk profiling, particularly measuring changes to risk profile information through the GFC.

Let's consider a few definitions before we start. In this review, we'll look specifically at risk tolerance and risk perception. Risk tolerance equates generally to what risk profile questionnaires attempt to measure – the ability to cope with investment volatility. Ideally, this would not change over time. Risk perception relates to the investor's view of current risk levels at any specific time. Obviously, this will change over time.

Last month, a paper by Michael Guillemette and Michael Finke appeared in the *Journal of Financial Planning*, specifically asking whether large swings in equity values change risk tolerance. The study used data from risk profile questionnaires collected by Finametrica, designed to measure risk tolerance, of US clients throughout the GFC. It then compared this with the level of the S&P500.

Guillemette and Finke found that there was a strong correlation between equity market levels and the average risk tolerance score. However, and perhaps surprisingly, the level of change was very minor – risk tolerances only fell very moderately, even during those wild swings of the GFC. The authors conclude that risk tolerance was generally determined by individual preferences rather than market movements.

Finametrica has just released a discussion of their views on the Guillemette/Finke paper and what that data suggests. Finametrica notes that the largest fall in average risk tolerance scores over the GFC was between February 2007 and March 2009, where a four point fall occurred, from 55 to 51². This equated with a movement in the comfortable range of equity

exposures of 45%–65% down to 40%–60%³. So, only clients at the extreme of their ideal equity exposure range should have been so affected by the GFC as to sell equities.

Finametrica also discuss at length what the questionnaires are supposed to measure. Ideally, they should measure only risk tolerance. Unfortunately, they will measure both risk tolerance and, to some degree, risk perception. It is impossible for answers to even the best designed questions to not include some level of colouring due to current risk perceptions.

Finametrica argues that the changes picked up by Guillemette and Finke through the course of the GFC are due to changes in risk perception, not risk tolerance.

In line with current theories of personality (which we will discuss in more detail in the [upcoming PortfolioConstruction Forum Finology Forum](#) and associated white paper), Finametrica argues that risk tolerance is determined by a mix of genetics and experience. It's usually fairly stable from about age 25 or so – however, it can change, particularly in line with significant personal experiences, albeit for a slow movement downward with age. Therefore, risk tolerance should be tested regularly by advisers.

Finametrica also notes that correlations between the average scores and the level of the S&P500 in the Guillemette/Finke study were very strong on the way down and very weak on the way up. This speaks to both recent experience and economic conditions. Finametrica suggests that risk perceptions, then, are based on both market and economic conditions.

So – the conclusion from these studies is clear, and based on what has been one of the most extreme markets of our lifetimes. Risk tolerances don't materially change with market or economic conditions. What we witness during times of market or economic stress is a change in risk *perception*.

This is good. It means that there is unlikely to be a significant change to clients' underlying risk profile during tough times, so their investment portfolios should not need to be chopped and changed. What changes is clients' view of the level of risk in markets/economies. Investors who are left to their own devices are more likely to react to this and alter their portfolios. However, practitioners can manage clients' risk perceptions, and therefore stop such over-reaction, through good, on-going education and a strong client-adviser relationship.

[Read “Do Large Swings in Equity Values Change Risk Tolerance?”](#)

[Read “Evidence for the Stability of Risk Tolerance”](#)

ENDNOTES

1. See for example the annual Dalbar studies. They charge big dollars for their reports but there is usually some media coverage. See, for example, <http://www.businessinsider.com/some-investors-are-bound-to-fail-2014-5?IR=T> for a discussion.
2. This equates to a 0.4 standard deviation movement.
3. Using the Finametrica methodology.