Taleb Tearing Modern Portfolio Theory Apart

I've been ranting lately about the shortcomings of modern portfolio theory. Spending time with fund researchers Lonsec and Zenith hasn't helped my blood pressure. The point of difference is not around stock selection or returns, but risk management. We spend our lives worrying about business risk and mispriced threats, like the risk of China blowing up.

Zenith and Lonsec (and the rest of the conventional financial community) aren't worried about China. Not yet anyway. As long as your historically-measured volatility and correlation are low, you are safe.

From my first day at university I've thought that was dumb. Volatility is only risk if your time horizon is short (meaning you potentially have to sell at low prices because you need the money) or you use leverage (meaning you potentially get *forced* to sell at low prices).

But even if volatility is your definition of risk, modern portfolio theory still doesn't work. In an appendix to *Antifragile*, author Nassim Taleb rips the mathematics to shreds.

> Take for now that anything estimating a parameter and then putting it into an equation is different from estimating the equation across parameters (same story as the health of the grandmother, the average temperature, here "estimated" is irrelevant, what we need is average health across temperatures). And Markowitz showed his incoherence by starting his "seminal" paper with "Assume you know E and V" (that is, the expectation and the variance). At the end of the paper he accepts that they need to be estimated, and what is worse, with a combination of statistical techniques and the "judgment of practical men." Well, if these parameters need to be estimated, with an error, then the derivations need to be written differently and, of course, we would have no paper— and no Markowitz paper, no blowups, no modern ?nance, no fragilistas teaching junk to students. . .

We're getting technical here. But Taleb's point is that the whole modern finance edifice is built on two mainstays – volatility and correlation – which are assumed to be fixed for all time. You don't need to be a phD to realise that both key inputs can and do change abruptly:

> I noticed as a trader— and obsessed over the idea— that correlations were never the same in different measurements. Unstable would be a mild word for them: 0.8 over a long period becomes ?0.2 over another long period. A pure sucker game. At times of stress, correlations experience even more abrupt changes— without any reliable regularity, in spite of attempts to model "stress correlations."

Worse than making modern portfolio theory useless, using estimates of volatility and correlation that are subject to dramatic change is outright dangerous.

> Note one fallacy promoted by Markowitz users: *portfolio theory entices people to diversify, hence it is better than nothing*. Wrong, you ?nance fools: it pushes them to optimize, hence overallocate. It does not drive people to take less risk based on diversi?cation, but causes them to take more open positions owing to perception of offsetting statistical properties...

Volatility based risk measures have maintained astonishing popularity despite a financial crisis which laid bare all of the shortcomings, and despite the fact that those shortcomings brought the world economy to a screaming halt. Zenith and Lonsec are not going to change the way they do things, Nassim Nicholas Taleb or no Nassim Nicholas Taleb.

Fortunately our business is not dependent on them, because we’re not changing the way we do things either.