IF YOU RISK NOTHING, THEN YOU RISK EVERYTHING
by Ben Brinkerhoff, Consilium

Risk. It's a word financial advisers tend to use a lot. Most of the time what we mean is uncertainty. We know investors don't like uncertain returns as uncertain returns are construed as "risky". If there is uncertainty, we would at least want the prospect of achieving a more favourable outcome, or why would we accept it in the first place.

Yet, there is a more intuitive way of thinking about risk, which probably better reflects how many long term investors think. For them, risk can be defined as not achieving the outcome they planned to achieve. Or perhaps in a financial sense, risk is not being able to spend the amount they want when they want to spend it.

Those are two very different ways of thinking about risk.

To explain these two types of thinking, imagine a very large bag containing 80% white beads and 20% black beads. For this exercise, let's say you do not want to draw a black bead out of the bag. You know if you take a draw there is some "uncertainty" about the outcome. Risk might be defined as the chance of pulling a black bead on a blind draw. That "risk" is 20%.

But now imagine you define risk differently. Giving yourself 30 draws, you identify that you want to draw at least 20 white beads. Put another way, with 30 draws, you want to draw at least twice as many white beads as black beads.

Thanks to the work of Swiss Mathematician Jakob Bernoulli, whose distribution calculations are now conveniently programmed into Excel, we can calculate the probability; with 30 independent draws, there is a 97% chance you will draw at least 20 white beads. (1)

The second view of risk is very different than the first. The first was all or nothing. You would either draw a black bead or a white bead. As your goal is to avoid black, a 20% chance of failure seems "risky".

In the second instance, you accept that over the course of 30 draws you will inevitably draw some black beads. Here, you are simply looking to draw white bead a majority of the time. In that case, the probability of drawing less than 20 white beads is only 3%. Quite naturally, that feels less risky.

How does this relate to investing?

Again, we ask the question, what is risk? Is risk the chance of losing money (our black beads in the example above)? In that case markets are negative about 20% of the time over rolling 12 month periods, over the past 50 years (2).

If you are uncomfortable with that level of risk, then you may be more attracted to term deposits and cash which (without considering inflation) have never had a negative 12 month return. To a highly risk averse investor, cash would seem less risky.

But is investing in cash really less risky?

Not if you define risk as "not achieving the outcome that I want". If achieving a certain long term minimum investment outcome is important, then cash might be about as risky as you can get.

Let's look at a practical example.

Imagine two investors each with $500,000. One invests in shares and one in cash. They each invest for 30 years and also withdraw $25,000 a year, adjusted annually by 2% inflation.

The share investor faces some additional costs. They seek out professional advice and engage an adviser, paying them a 1% p.a. tax deductible fee. The investor also uses a Consilium diversified share portfolio that needs trading and rebalancing which costs 0.50% p.a. An additional fee is paid to a custodian at standard rates (3).

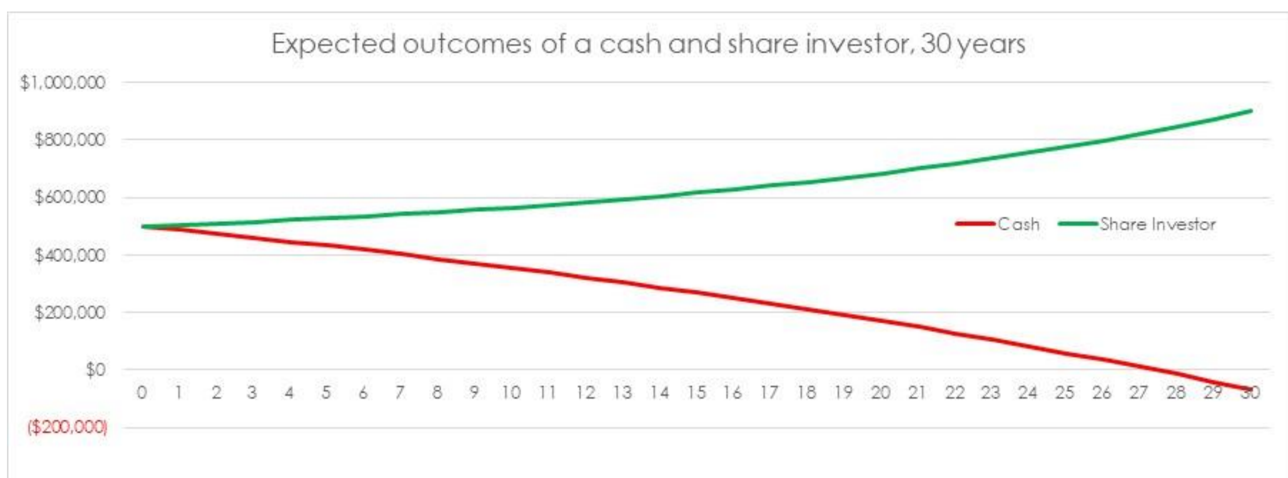
The cash investor, on the other hand, only uses term deposits and apart from taxes has no other additional fees (4).

What's the probability that the share investor runs out of money? This is very similar to the trial of pulling 30 beads out of the bag. There are some white beads and some black beads, meaning there are some up years and down years. But there is a preponderance of up years. The overall probability that the portfolio lasts longer than 30 years is about 85%. On average, after 30 years, we would expect the investor to have a portfolio of approximately $900,000. In other words, in all probability the share investor ends up with more money than they started with.

What about the cash investor?

The overall probability that the portfolio lasts longer than 30 years is about 0%. On average, after 30 years, we would expect a shortfall of approximately -$60,000.

We have summarised these two expected outcomes on the chart below.



To be sure, the share investor has a much wider range of potential outcomes. We can also project that 25% of the time they would end up with above $2,000,000, and 25% of the time they would end up below $200,000. But is that range of potential outcomes the "risk"? Or is the risk really that they will or will not outlive their wealth over 30 years?

Most people would say the real risk is the later.

In our earlier example, the willingness to make 30 separate draws in order to draw at least twice as many white beads, led to an overall reduction in the risk. Likewise, an investor's willingness to accept some bad markets over 30 years, gives them a much greater probability of not outliving their money.

We don't mean to minimise the pain of experiencing a temporary drop in share prices. But we do mean to point out that if we can accept short term losses as a normal part of the journey towards achieving longer term objectives, it maximises the probability we can achieve those objectives.

In that light, the real risk of shares for the longer term investor is not having enough of them! But that's not a risk for the investors we work with, because each has a unique plan outlining the most appropriate level for them.

When the achievement of long term goals is your yardstick, risk is probably best expressed in the words of actress Geena Davis, **"If you risk nothing, then you risk everything**." (3)

Warm regards,

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1. For the nerds in the audience, use the function binomdist.
2. https://www.ifa.com/portfolios/100/#9
3. Numbers estimated by Consilium based on a 98/2 portfolio with gross expected long term return of 9.8%, management fees and trading costs annually of 0.50%, adviser fees plus GST of 1.12%, platform fees of approximately 0.25% depending on asset levels, foreign tax of 0.28%, domestic tax of 1.15%, deductions worth 0.45% and inflation of 2%. Volatility assumed to be 12.75%.
4. Numbers estimated by Consilium based on a term deposit portfolio with gross long term expected return of 3.69%, management fees and trading costs annually of 0%, adviser fees plus GST of 0%, platform fees of approximately 0% depending on asset levels, foreign tax of 0%, domestic tax of 1.22%, deductions worth 0% and inflation of 2%.
5. https://www.quotemaster.org/not+taking+ris