Seed Weekly

Inversion Thinking by Ian de Lange

In my last article, Investing in Times of Uncertainty, I discussed Charlie Munger's use of the concept of mental models to understand the world, simplify complexity and in so doing, improve learning and decision making.

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As one of his mental models, Munger explores the idea of inverting a problem. By turning a problem upside down and then approaching it by eliminating what will NOT work, you are typically left only with options that WILL work. The origin of this was inspired by Carl Jacobi, 19th century German mathematician, who applied this inversion approach as an aid to solve difficult problems.

Most times, it is good to look at a problem not only in one direction, but both forwards and backwards. The common way to think about solving a problem is in forward gear. For example, "*Our business needs to achieve XYZ – what action steps do we need to implement in place to achieve success?"*. While making a checklist of action points is indeed important, inversion thinking means to consider the problem in reverse and then carefully avoid all noted potential mistakes that can put success at risk.

Because loss aversion is such a powerful psychological concept when investing, approaching decisions more about the avoidance of mistakes, rather than the desired outcome, is especially useful. In this way, investing is sometimes compared to the game of tennis, where consistency and limiting unforced errors typically wins games. In other words, staying the course and winning through attrition.

A good example of inverting a problem to get to the desired outcome, which you may be familiar with, is Warren Buffett's first 2 rules of investing: "*Rule number 1, never lose money and rule number 2, never forget rule number 1*." It is clear to see that these rules are stated not in the positive sense, but in the negative - what NOT to do to achieve success.

Not only are investment losses psychologically negative, but when compounding returns, there is a mathematical asymmetry of loss impact relative to gains. For instance, a 50% loss requires a 100% gain to bring the portfolio back to breakeven. Successful investing is about seeking out the upside, but as far as possible avoiding large drawdowns. It is useful to spend time thinking about and minimising risk, and this is typically achieved by thinking about a problem using the inversion methodology.

Examples of Inversion Thinking when Approaching Problems

- Instead of focusing on a company's good attributes when considering buying, spend some time inverting the question and asking, "*What are all the reasons why this is not a good investment*?". If an investor can knock off these points and in so doing, consider the buy decision from different angles, it will ensure a more robust research process and help minimise confirmation bias.

- Jeff Bezos, founder of Amazon used this inversion principle, and at a discussion in 2012 was quoted as saying, "*I very frequently get the question: 'What's going to change in the next 10 years?' And that is a very interesting question; it's a very common one. I almost never get the question: 'What's NOT going to change in the next 10 years?' And I submit to you that that second question is actually the more important of the two — because you can build a business strategy around the things that are stable in time … In our retail business, we know that customers want low prices, and I know that's going to be true 10 years from now. They want fast delivery; they want vast selection.*"

- Instead of trying to consider the range of new political policies that should be implemented to assist a country such as South Africa improve its economic success, perhaps consider eliminating destructive policies.

- Successful financial planning might include a diversified investment portfolio, life insurance policies and annual reviews, to name a few important elements. However, also consider what should be avoided to achieve this financial success. For instance, excessive leverage, panic selling of investments and frivolous consumption.

Conclusion

We all want to make better decisions and in a world of information overload, doing so is becoming increasingly difficult. Using inversion thinking is but one tool to improving and assist in decision making, especially when it comes to investments.

Kind regards,

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