## World Cup Fever: What the “Beautiful Game” of Soccer Can Teach Us about Investing

**Don’t just do something, stand there.**

Like many investors, we are always looking for insights into how we might improve our outcomes over time. By taking a multi-disciplinary approach and “thinking outside the box”, we sometimes get our inspiration from endeavors completely unrelated to the world of investing. As we prepare to watch the World Cup, it reminds us of a study from a few years ago about the actions of goalkeepers on penalty kicks and surprisingly, it provides some helpful lessons for investors as well.

The beautiful game has certainly evolved and matured over time. Players have improved – running faster, shooting harder, passing more accurately and dribbling quicker. But at the same time, new defensive strategies have been added to contain them – offside traps, pressing, triangular passing etc. All of this has resulted in a dramatic drop in the number of goals scored in any given match. In 1890, the average game had 4.5 goals (by both teams together). Today, that has dropped to about 2.5 goals per game. The loss of two goals per game since the beginning of the 20th century and the trend towards a more defensive game makes every incremental goal that much more meaningful.

As such, a penalty kick, which has roughly an 80 per cent chance of resulting in a goal, can turn a match. When a penalty kick is taken, the ball travels at about 100 kms per hour and reaches the net in less than 0.4 seconds, so goalkeepers must choose their action before the kick is taken as there is no time to adjust once the ball is on its way. No wonder penalty shots are notoriously difficult to stop.

In 2007, researchers looked into penalty kicks in order to find the optimal strategy for goalkeepers. They studied 311 penalty kicks in top leagues and championships worldwide. Roughly speaking, they found that the kicks were equally distributed with about one third of kicks to the left, centre and right of the goal. They also found that goalkeepers that decided to stay put saved 60% of the kicks aimed at the centre, much higher than the percentage of saves made if he correctly guessed the direction of the ball and dove that way (less than 40%, which includes occasional saves of kicks directed at the centre but still saved after diving left or right).

Considering this save percentage and equal probability of the kick direction, the optimal strategy for goalkeepers is to actually stay in the centre of the goal. Yet, goalkeepers rarely do so. Their bias was clearly to act, jumping to the right or left about 94% of the time. Rationally speaking, this behaviour does not make sense. After all, these are professionals, paid and incentivized extremely well to save goals and win matches. Why did they dive right or left most of the time when staying in the centre more often would produce better results over time?

The curious researchers conducted a follow up survey to probe the mind-set of 32 top professional goalkeepers. They found that, in essence, goalies are psychologically biased for action. By diving left or right, the players reasoned that at least they were making an effort and would feel less regret than if they just stayed in the centre and then watched the goal being scored either side of them. In other words, their bias to act led to worse overall results, but they felt better about a poor outcome because at least they tried to do something. The lesson: When it comes to the actions of men, psychology and emotion tends to trump rationality. Herein lie some important parallels for investors.

**The downside of being hardwired for action**

The greatest flaw in short-term investing is the belief that great business performance is always linear. Time tends to push out the weakly convicted and creates opportunities for those with a long-term perspective. A patient approach to portfolio management is not practiced by many, but it tends to work over the long haul

because it is aligned with how the world really works. Don't just take our word for it. Numerous studies have shown that performance and portfolio turnover tends to be inversely correlated over time. Patient investors tend to outperform the day trading types. An interesting recent study concluded that only highly patient investment strategies, when combined with high Active Share portfolios – where holdings differ substantially from their benchmark – outperform, on average. According to the study, this successful group represents a very small percentage of all active investors. In large part, misaligned incentives, driven by short-term relative performance and benchmarking, prevents most managers from implementing this approach in their investment strategies. Yet these real-world findings have clear implications for today's active vs passive debate.

We believe it is important to see the world as it really is in order to stack the odds in one's favour. Like many aspects of life, it turns out that capitalism and investing is also beholden to the "80/20 rule". A minority of individual stocks account for most of the stock market's total returns over time, because only a handful of companies create real long-term wealth. The key, in our opinion, is to be patient with such compounders so one can benefit from magnitude in capitalism. This also explains in large part why portfolio turnover and returns tend to be inversely correlated. It's hard to keep up when you sell the Starbucks, Amazons and Berkshire Hathaways of the world early-to-midway through their respective lifecycles. Yet, just like the goalkeepers in the study, there is an almost irresistible urge for action when investing. Today's increasingly "always on" world is only making matters worse. In the US, the average holding period of a stock on the New York Stock Exchange was about seven years in 1940. Now the average holding period is less than nine months.

This is no argument for complacency. The world is constantly changing and companies are dynamic. Facts do change and one should be monitoring developments and taking action if warranted. But just like the goalkeepers in the study, the bias for more action than is necessary will likely lead to subpar results. In order to be more successful, investors must be comfortable with being uncomfortable at times.

A recurring pattern in investing is the fact that most participants tend to "buy high" when the news is favourable and "sell low" when conditions become more challenging. Often, their returns could have been higher if they had just stayed put. But investors are human, just like goalkeepers, and when it comes to action, psychology overpowers rationality. How can investors combat this unhelpful behaviour? First, by appreciating and acknowledging this wealth destroying bias, and second, by making a commitment to take less unnecessary action.

Watching the daily stock market action increases the urge to over-trade – it is as if the market was shouting in your ear, "Don't just stand there, do something!" Yet, most investors would probably improve the odds of success over time if they took the opposite approach. "Don't just do something, stand there." This is very counterintuitive. But in both goalkeeping and investing, the evidence shows that resisting the urge to "do something" more often increases the odds of success. So, as you watch the World Cup, look out for the goalie who has the courage to stay in the centre instead of diving to save a penalty. I'll be cheering for him and wondering if he's also a great investor!

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