

Insights, Tacit Thought | Weekly Investment Insights

## **World Cup Predictions**

Published on: 13 July, 2018 | Author: Investment Team

To the man with a hammer, any problem looks like a nail. And to use this tool to solve every challenge makes the outcome as uncertain as a football penalty shoot-out.

In trying to predict the results of the World Cup, analysts at some reputable firms have been busy with their large data sets and computer models. Trained to analyse and manipulate information, they try to make predictions about uncertain outcomes. So figuratively speaking they reached for their toolbox. But if the only tool available is that hammer then inevitably they'll only find nails.

One large well-known bank wrote a 17-page report trying to forecast the winners. They carried out 10,000 simulations and predicted the most likely victors would be from Germany, Brazil or Spain. They went further. They declared that Germany would have an additional 68.6% chance of coming out on top in the group stage. As we now know these forecasts were shown the proverbial red card. Neither Germany, Brazil nor Spain made it past the quarter finals with Germany in fact finishing bottom of their group.

Analysts at another bank raised the stakes higher and used machine learning to run 200,000 models to determine game outcomes based on team and player qualities and traits. They then carried out 1 million different simulations and projected a Brazil – Germany final. Wrong again.

Why did these predictions fail? For starters, they used static and backward-looking data. Things change in real time which can't be incorporated into these models. For instance, a goalkeeper may suffer a concussion that affects his performance, team morale may be poor on the day or the referee after a huge domestic row could be very negative in his decision making. In the real world there are always large dollops of randomness that can never be modelled.

Also, mathematically, because of the low scoring nature of football compared to other sports, just one goal can change the outcome of a game. This improves the odds of the underdog and makes predictions even more difficult.

The problem with having only one tool in your toolbox means you're limited in how you approach the problem. Big data mining and machine learning only compounds the situation because we can now run a million simulations and make predictions to 1 decimal place. This improves our confidence in the results but does not make them any more accurate.

So, who will win the World Cup? We at Tacit Investment Management hold our hands up. We don't know. What we do know of course is that it will be either France or Croatia. Sadly, for England, they're coming home.

**Important Information:** Any views, insights, or commentary are for general information only, do not constitute personal investment advice or research, and are intended for UK residents. They may not be appropriate in all jurisdictions. While sourced from information we believe to be reliable, we make no guarantee as to accuracy or completeness. Past performance is not a guide to future results, and the value of investments can go down as well as up.

Regulatory Disclaimer: Tacit Investment Management is the trading name of TIML Limited (No. 9228395), part of Tacit Holdings Limited (No. 10611211). Both companies are incorporated in England and Wales, with the registered office at 14 Hanover Square, London W1S 1HN. TIML Limited is authorised and regulated by the Financial Conduct Authority (FCA ref. 670184) and approves and issues this communication under Section 21 of the Financial Services and Markets Act

2000. Please note, tax and estate planning services are not regulated by the FCA.