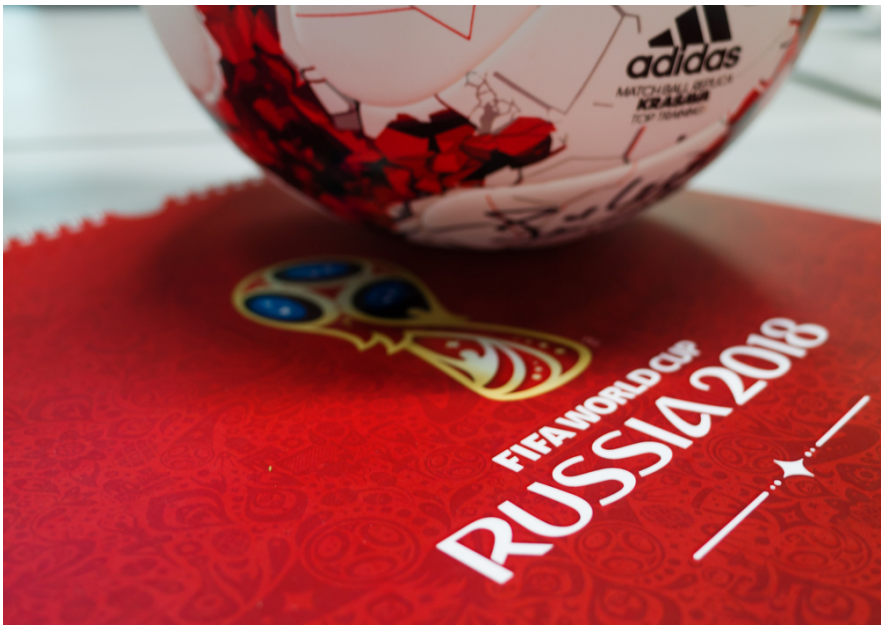
World Cup: Should we follow the money?

If you're looking to take a punt on the outcome of the World Cup this year, financial analysts have come up with a quirky range of models and algorithms to help you pick a winner. But, there's more fun to be had and lessons to be learnt from the World Cup than simply following the money



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Be prepared for surprises - value for money differs from the amount spent

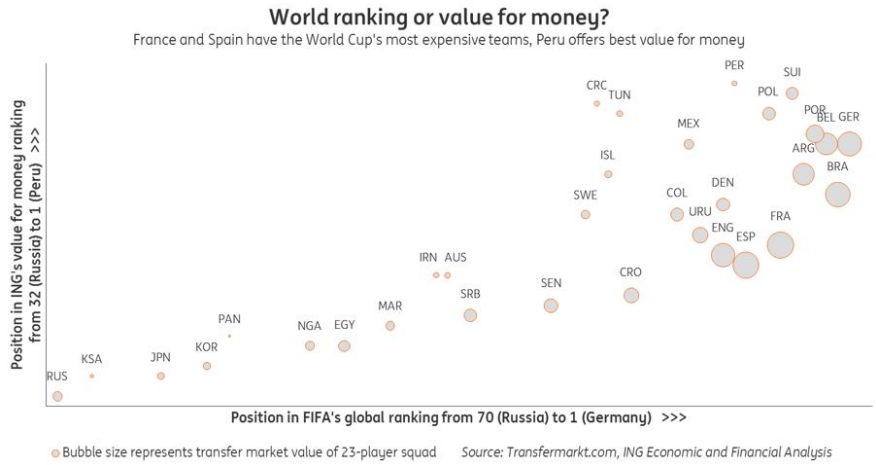
Money helps buy success, as our analysis has shown. But the relationship between the two is loose. Germany is the highest-ranked country on FIFA analysis of past performance, with Brazil second, yet they have only the fourth and third most valuable squads in the 2018 tournament.

The difference between the ranking teams by the cost of their squad and their FIFA ranking could be considered as a measure of "value for money".

On this basis, Peru represents the best value for money. Fielding a squad costing only €37 million (this is bettered by 86 individual players in the tournament) it ranks 30th of 32 teams on cost. Yet its FIFA ranking of 11 is 19 places higher. No other team has such a mismatch. The next closest is

Switzerland with a squad costing €218 million, ranking it 16 and a FIFA ranking of 6, giving a difference of 10 places.

ING economists in Germany plotted the value for money figures for each team against the FIFA ranking and represented the cost of each team by the size of circles on the chart below. Note an increasing dispersion of the chart as the FIFA ranking and value for money increases (the right-hand top quadrant). This suggests that if you are looking for games that could give unexpected results, consider watching World Cup games among these teams.



There is a story hidden in this data. The World Cup is designed as a tournament. Teams are likely to meet each other only once. Losing any match arguably puts a team at a disadvantage. After the initial group stages, losing will mean leaving the competition. There are unlikely to be any second chances. This is unlike a long season of football where playing many games works to the advantage of well-funded and superior clubs.

Probabilities (and to an extent, forecasts) are best understood when an event or game is repeated many times. Tournaments like the World Cup can be different. They largely preclude repeated attempts and so require different approaches to the competition. Economists have thought about this and developed ways of thinking about markets based on tournament theory and the winner-takes-all approach. Sports tournaments help economists tell better stories because they can sometimes demonstrate their ideas in a way that is more easily understood.

Incentives and rules

Economists love sport. The 2009 book Economics 2.0 by Norbert Haring and Olaf Storbeck has a chapter titled “The athlete as a guinea pig – or why economists love sports.” The authors explain that the rules of sports games are well defined, the goals are clear and a great deal of data is gathered. This combination allows economists to study how changes in rules affect the way people behave.

The book was one of the first to summarise studies ranging from football, tennis, cricket and American football showing how changes in rules led to changes in the behaviour of players. Since then many others have followed suit, opening the way for updated studies after each major tournament.

Economists hate forecasting

As much as economists may love sport, they often recognise the limitations of their understanding. Although major sporting events such as the FIFA World Cup often see economists forecast likely winners, they do this partly because it is fun. It is not meant to be taken seriously.

There is a widespread yet incorrect view that forecasting is what economists do. For many economists, this is frustrating because it confuses two things.

- First, forecasts are best considered as possible rather than certain outcomes. This is a point often made by forecasters not only of economic events but also of social and political affairs. Nate Silver's The Signal and the Noise and Dan Gardner and Philip Tetlock's Superforecasting provide many examples of how to think about and use forecasts. Yet people often prefer to focus on one figure in a forecast rather than consider the story that lies behind that figure. The possible twists and turns that lead to that one figure are ignored.
- Second, inordinate attention placed on forecasts, particularly of financial markets, diverts attention from the wide variety of topics covered by economists. On Twitter, the hashtag #WhatEconomistsDo is used to let people know about the wide variety of topics that economists cover.

Few watching the World Cup over the next month are likely to spend a great deal of time analysing the matches in the way economists might. And it's likely they'll enjoy the games even more.