



PREDICTIONS FOR THE 2019 ICC WORLD CUP



NineSquared

ENGLAND AREN'T WINNING IT

AND NEITHER IS INDIA...

The bookies have it as a two-horse race – three if you count Australia. The ICC ODI Rankings also have England and India as the favourites heading into the tournament.

We see it differently.

The ICC Cricket World Cup 2019 is hosted by England and Wales from 30 May to 14 July 2019. The ICC Cricket World Cup takes place every four years with Australia beating New Zealand in the final back in 2015.

Australia's 2019 World Cup team is surrounded by controversy with both Steve Smith and David Warner being named in the side after the sandpaper controversy. Despite that, confidence in the team is higher with many having them in the top three.

To understand how Australia as a team may fare at the World Cup, NineSquared has applied its analytics expertise to predict who is likely to triumph, and who is likely to disappoint.



OUR APPROACH

International Cricket Council, international crickets governing body, publish the World Cricket Rankings which rank the respective cricket nations for each form of the game.

Team ratings are worked out by dividing the points scored by the match or series total, with the answer given to the nearest whole number. It can be compared with a batting average, but with points instead of total runs scored and a match or series total instead of number of times dismissed. Each of the top 10 nations have qualified for the world cup, but England's ICC ranking is almost double that of Afghanistan.

Our approach is a little different. We have produced a set of rankings for the 10 teams in the 2019 Cricket World Cup (CWC) in England and Wales by assigning each team an Elo rating based on their performances in matches between all international teams since the last CWC in 2015 with all match data being sourced from ESPN CricInfo. Elo ratings is a method for calculating the relative skill levels of players or teams in zero-sum games.

Prior to each match of the 2019 CWC, the Elo rating of each team is compared to determine the expected winner. The higher the score, the more likely that country is to win.

These rankings are used to predict the outcomes and winning margins of each game.

Rank	ICC Rankings	Sportsbet Rankings	Our Rankings
1.	England	England	South Africa
2.	India	India	Australia
3.	South Africa	Australia	England
4.	New Zealand	South Africa	New Zealand
5.	Australia	New Zealand	Afghanistan
6.	Pakistan	Pakistan	India
7.	Bangladesh	West Indies	Bangladesh
8.	West Indies	Bangladesh	West Indies
9.	Sri Lanka	Sri Lanka	Sri Lanka
10.	Afghanistan	Afghanistan	Pakistan

OUR ANALYSIS OF THE POOL GAMES

The first round of the CWC is a pool stage of which the 10 teams play off against each other. This stage incorporates a round-robin tournament in which every team plays each other twice. This results in 45 games being played over 38 days. Teams which finish in the top four progress to the semi-finals. The chance of winning along with the expected margin of victory for each tournament match is displayed in the Appendix. It is important to note, however, that while the expected margin of victory values may be compared to book marker odds, it is unlikely to beat the house margin based on similar methodologies in other studies.

As expected, a number of large margins are expected in the tournament stages. Countries such as West Indies and Bangladesh (which have among the lowest Elo ratings of the CWC nations) have had little experience in playing against notable opposition in recent years.

Based on the calculated chances of winning, the expected standings after the tournament fixtures are able to be forecast. An expected points total is calculated assuming a win generates 3 points, a draw offers 1 point and a loss results in no points.

The probabilities that each team will make it through the tournament stage, along with the bookmaker odds from Sportsbet.com.au with the margin removed, are presented in the table to the right. To determine these chances of advancing, a Bernoulli distribution is applied to the chances of winning. The final group rankings are then calculated across thousands of iterations of Monte Carlo analysis with a top four finish resulting in advancing.

Estimated probability of advancing to the semi-finals

	NineSquared	SportsBet
England	76%	86%
India	25%	82%
Australia	81%	70%
South Africa	81%	46%
New Zealand	55%	39%
Pakistan	8%	30%
West Indies	12%	30%
Bangladesh	12%	5%
Sri Lanka	11%	7%
Afghanistan	40%	4%



POOLGAME PREDICTIONS

Team 1	Team 2	Team 1 Win Percentage	Team 2 Win Percentage	Margin of Victory (Runs)
England	South Africa	47%	53%	18
West Indies	Pakistan	54%	46%	26
New Zealand	Sri Lanka	66%	34%	111
Afghanistan	Australia	41%	59%	63
South Africa	Bangladesh	66%	34%	112
England	Pakistan	69%	31%	137
Afghanistan	Sri Lanka	58%	42%	55
South Africa	India	61%	39%	77
Bangladesh	New Zealand	37%	63%	92
Australia	West Indies	67%	33%	117
Pakistan	Sri Lanka	46%	54%	24
England	Bangladesh	63%	37%	94
Afghanistan	New Zealand	42%	58%	56
India	Australia	41%	59%	64
South Africa	West Indies	68%	32%	130
Bangladesh	Sri Lanka	53%	47%	20
Australia	Pakistan	70%	30%	143
India	New Zealand	42%	58%	57
England	West Indies	66%	34%	112
Sri Lanka	Australia	33%	67%	118
South Africa	Afghanistan	61%	39%	76
India	Pakistan	61%	39%	79

Team 1	Team 2	Team 1 Win Percentage	Team 2 Win Percentage	Margin of Victory (Runs)
West Indies	Bangladesh	47%	53%	18
England	Afghanistan	58%	42%	58
New Zealand	South Africa	47%	53%	20
Australia	Bangladesh	64%	36%	99
England	Sri Lanka	66%	34%	113
India	Afghanistan	50%	50%	0
West Indies	New Zealand	34%	66%	110
Pakistan	South Africa	29%	71%	156
Bangladesh	Afghanistan	45%	55%	36
England	Australia	49%	51%	5
New Zealand	Pakistan	69%	31%	136
West Indies	India	42%	58%	53
Sri Lanka	South Africa	32%	68%	131
Pakistan	Afghanistan	39%	61%	80
New Zealand	Australia	49%	51%	7
England	India	59%	41%	58
Sri Lanka	West Indies	50%	50%	2
Bangladesh	India	45%	55%	35
England	New Zealand	50%	50%	2
Afghanistan	West Indies	58%	42%	54
Pakistan	Bangladesh	44%	56%	44
Sri Lanka	India	42%	58%	55
Australia	South Africa	48%	52%	13

THE FINALS

Each of the nations which finish in the top four qualify for the semi-finals with the other six teams being eliminated from the tournament. Finishing first in the tournament fixtures presents an advantage as the top team faces the fourth ranked team in the semi-final.

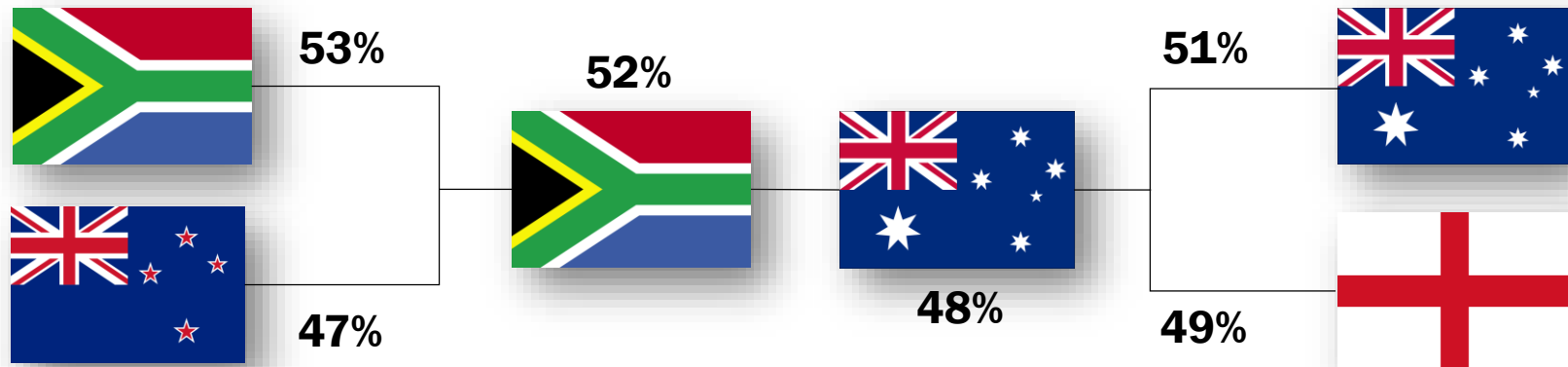
South Africa, England, Australia and New Zealand are expected to make it through to the finals, with a South Africa versus Australia grand final the most likely outcome.

The warm-up games have solidified our view on the rankings. Prior to the warm-up games, South Africa ranked the highest with Afghanistan being the surprise packet of the tournament. This has been borne out by Afghanistan's win over Pakistan and South Africa's convincing win over Sri Lanka. Australia's victory over England supports our belief that England will not come away World Champions.

At its core, however, limited overs cricket is a sport underpinned by luck. One lapse in concentration can remove a nation's best batsman, and one good over can change the landscape of the tournament. This is reflected in the probabilities that suggest there is little difference between nations in the finals. While we have South Africa as the favourites with a 22% chance of winning, Australia and England are not far behind at 21% and 20% respectively.

As each game is completed throughout the Cricket World Cup, the Elo rating for each team will be updated with the new expected finals matches. Keep up to date by following [linkedin.com/company/ninesquared](https://www.linkedin.com/company/ninesquared) on LinkedIn and [@ninesquared81](https://twitter.com/ninesquared81) on Twitter.

How we think the finals will play out



About NineSquared

NineSquared is a specialist economic consulting and commercial advisory firm focused on helping governments and companies make great decisions to achieve your goals and objectives. (We also love a bit of sport).

Our principals and staff are experienced, senior level practitioners who have worked in and advised government and private sector clients about a range of commercial and economic issues, primarily relating to transportation. Broadly, our expertise lies in the fields of transport and regulatory economics, policy development and analysis and advising on commercial arrangements between government and the private sector as well as arrangements between companies operating within regulated environments.

Our combined public and private sector experience means that we are well placed to provide our clients with deep understanding of both the public and private sectors and the interface between them.

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About Monte-Carlo Analysis

Our analysis of the ICC world cup is based on simulating the potential outcomes of each of the games that are played thousands of times using a technique known as monte-carlo analysis. Monte-carlo analysis allows for the estimation of risk and uncertainty by substituting a range of values across a probability distribution. Results are then calculated over and over, each time using a different set of random values each time. Depending on the number of uncertainties and the ranges specified for each of them, a monte-carlo model run could involve thousands of recalculations.

NineSquared uses monte-carlo analysis in its work for clients to answer questions around the potential risk associated with uncertain events and how that risk may impact on costs, time and commercial outcomes. If you want to know more about how monte-carlo analysis could benefit you, please contact us using the contact details above or reach out to us at info@ninesquared.com.au