Article | 2 July 2018 eZonomics

World Cup: Knockouts are difficult to forecast

Spain was eliminated from the World Cup at the weekend in the first set of knock-out games. Before the competition began, we made a <u>playful prediction</u> that Spain would win. This was clearly wrong. But can we learn anything from this?



Money talks – but sometimes it babbles

The approach we took was simple. Teams for each country were ranked according to the transfer value of their 23 man squads. Higher valued teams were assumed to beat lower valued teams.

Spain's loss to Russia was not the only game since the start of the knockout phase where the more highly valued team lost. Portugal lost to Uruguay, but the Uruguay team was ranked only one position below Portugal on value. In the four knock out games so far, the value ranking approach worked with France defeating Argentina and Croatia beating Denmark.

A score of two out of four might suggest the approach gives a prediction that is no better than chance. However, there is a way to challenge this.

It's important to realise forecasts and models work best when there is repeated rather than one-

off or knockout events. Looking at results from the group rather than the knockout phase gives more useful information.

Better than tossing a coin

The group stage of the tournament consisted of 48 games. Every team played three games with the aim of accumulating enough points to get into the upper half of their group.

In this stage, the higher valued team won 26 games – a 54% success rate. But nine games were draws. The value only approach does not allow for draws. Excluding those, the success rate increases to 67%.

Still, that may not have predicted which two teams would top each group. The approach was correct for four of the eight groups – a 50% success rate. That's actually pretty good. My colleague Sebastian Franke notes that for every group of four teams, there are six possible combinations of two coming out on top. A 50% success rate against a one-in-six chance is more than acceptable.

A second <u>approach looked at</u> 'value for money'. This compared the difference between a team's value and its FIFA ranking. A team with low value but high FIFA ranking was considered better value for money. This approach was less successful. It had a 44% correct response rate for all games and 54% excluding draws. Peru, the best value for money team, did not progress to the next stage of the competition.

Enjoy the unpredictable

Arguably the biggest surprise in the tournament so far has been Germany's failure to move out of the group stage despite playing three games. Germany was one of the most highly valued teams in the competition, has the highest FIFA ranking and is the current title holder. Losses by Spain and Portugal in one-off, knock-out games are less surprising. Germany disappointed multiple times. Spain and Portugal had only one chance on Sunday. The Iberian countries were exposed to unpredictability.

Tournaments, such as the World Cup, are designed to allow for unpredictability. Although my colleagues in Germany, Spain and Portugal may disagree, it's a big part of their attraction.

Lessons from unpredictability

On a more serious note, there are useful lessons to learn from the World Cup. That the German and Spanish teams have been eliminated does not mean they're not good – even great – football teams. Luck did not run their way. Uruguay and Russia are worthy winners. They have used their luck well.

<u>Economist Robert Frank argues</u> that luck plays an important role in life and the economy. Tournaments can be cruel because they give an even greater role to luck.

Recognising when you're competing in a market that is essentially a tournament can be important in understanding why your plans don't work out as you hoped. Many job interviews <u>can be</u> <u>considered tournaments</u>. If you're in a tournament situation, it may be worth persisting with something you want to do.

I suspect 2001 Nobel prize winning economist George Ackerlof recognised he was essentially in a

tournament while trying to have his influential paper "The market for lemons" published. The paper challenged the idea of perfect knowledge in markets by using the example of sales of second-hand cars. The seller has more information than the buyer, who could end up with an unreliable vehicle – a "lemon" in common language. The seller would know this but the buyer wouldn't. The information is asymmetric.

Ackerlof recounts in his <u>Nobel acceptance speech</u> that the paper was rejected by major journals as trivial and incorrect. Ackerlof persisted, submitting his paper to the Quarterly Journal of Economics where it was finally published.

Author

Alissa Lefebre

Economist <u>alissa.lefebre@ing.com</u>

Deepali Bhargava

Regional Head of Research, Asia-Pacific <u>Deepali.Bhargava@ing.com</u>

Ruben Dewitte

Economist +32495364780 ruben.dewitte@ing.com

Kinga Havasi

Economic research trainee kinga.havasi@ing.com

Marten van Garderen

Consumer Economist, Netherlands marten.van.garderen@ing.com

David Havrlant

Chief Economist, Czech Republic 420 770 321 486 david.havrlant@ing.com

Sander Burgers

Senior Economist, Dutch Housing sander.burgers@ing.com

Lynn Song

Chief Economist, Greater China lynn.song@asia.ing.com

Michiel Tukker

Senior European Rates Strategist

michiel.tukker@ing.com

Michal Rubaszek

Senior Economist, Poland michal.rubaszek@ing.pl

This is a test author

Stefan Posea

Economist, Romania tiberiu-stefan.posea@ing.com

Marine Leleux

Sector Strategist, Financials marine.leleux2@ing.com

Jesse Norcross

Senior Sector Strategist, Real Estate jesse.norcross@ing.com

Teise Stellema

Research Assistant, Energy Transition teise.stellema@ing.com

Diederik Stadig

Sector Economist, TMT & Healthcare diederik.stadig@ing.com

Diogo Gouveia

Sector Economist diogo.duarte.vieira.de.gouveia@ing.com

Marine Leleux

Sector Strategist, Financials marine.leleux2@ing.com

Ewa Manthey

Commodities Strategist ewa.manthey@ing.com

ING Analysts

James Wilson

EM Sovereign Strategist James.wilson@ing.com

Article | 2 July 2018 4

Sophie Smith

Digital Editor

sophie.smith@ing.com

Frantisek Taborsky

EMEA FX & FI Strategist

frantisek.taborsky@ing.com

Adam Antoniak

Senior Economist, Poland adam.antoniak@ing.pl

Min Joo Kang

Senior Economist, South Korea and Japan min.joo.kang@asia.ing.com

Coco Zhang

ESG Research

coco.zhang@ing.com

Jan Frederik Slijkerman

Senior Sector Strategist, TMT jan.frederik.slijkerman@ing.com

Katinka Jongkind

Senior Economist, Services and Leisure Katinka.Jongkind@ing.com

Marina Le Blanc

Sector Strategist, Financials Marina.Le.Blanc@ing.com

Samuel Abettan

Junior Economist samuel.abettan@inq.com

Franziska Biehl

Senior Economist, Germany Franziska.Marie.Biehl@ing.de

Rebecca Byrne

Senior Editor and Supervisory Analyst rebecca.byrne@ing.com

Mirjam Bani

Sector Economist, Commercial Real Estate & Public Sector (Netherlands) mirjam.bani@ing.com

Timothy Rahill

Credit Strategist

timothy.rahill@ing.com

Leszek Kasek

Senior Economist, Poland leszek.kasek@ing.pl

Oleksiy Soroka, CFA

Senior High Yield Credit Strategist oleksiy.soroka@ing.com

Antoine Bouvet

Head of European Rates Strategy antoine.bouvet@ing.com

Jeroen van den Broek

Global Head of Sector Research jeroen.van.den.broek@ing.com

Edse Dantuma

Senior Sector Economist, Industry and Healthcare edse.dantuma@ing.com

Francesco Pesole

FX Strategist

francesco.pesole@ing.com

Rico Luman

Senior Sector Economist, Transport and Logistics Rico.Luman@ing.com

Jurjen Witteveen

Sector Economist

jurjen.witteveen@ing.com

Dmitry Dolgin

Chief Economist, CIS dmitry.dolgin@ing.de

Nicholas Mapa

Senior Economist, Philippines nicholas.antonio.mapa@asia.ing.com

Egor Fedorov

Senior Credit Analyst egor.fedorov@ing.com

Article | 2 July 2018 6

Sebastian Franke

Consumer Economist sebastian.franke@ing.de

Gerben Hieminga

Senior Sector Economist, Energy gerben.hieminga@ing.com

Nadège Tillier

Head of Corporates Sector Strategy nadege.tillier@ing.com

Charlotte de Montpellier

Senior Economist, France and Switzerland charlotte.de.montpellier@ing.com

Laura Straeter

Behavioural Scientist +31(0)611172684 laura.Straeter@ing.com

Valentin Tataru

Chief Economist, Romania valentin.tataru@ing.com

James Smith

Developed Markets Economist, UK <u>james.smith@ing.com</u>

Suvi Platerink Kosonen

Senior Sector Strategist, Financials suvi.platerink-kosonen@ing.com

Thijs Geijer

Senior Sector Economist, Food & Agri thijs.geijer@ing.com

Maurice van Sante

Senior Economist Construction & Team Lead Sectors <u>maurice.van.sante@ing.com</u>

Marcel Klok

Senior Economist, Netherlands marcel.klok@ing.com

Piotr Poplawski

Senior Economist, Poland piotr.poplawski@ing.pl

Paolo Pizzoli

Senior Economist, Italy, Greece paolo.pizzoli@ing.com

Marieke Blom

Chief Economist and Global Head of Research marieke.blom@ing.com

Raoul Leering

Senior Macro Economist raoul.leering@ing.com

Maarten Leen

Head of Global IFRS9 ME Scenarios maarten.leen@ing.com

Maureen Schuller

Head of Financials Sector Strategy <u>Maureen.Schuller@ing.com</u>

Warren Patterson

Head of Commodities Strategy Warren.Patterson@asia.ing.com

Rafal Benecki

Chief Economist, Poland rafal.benecki@ing.pl

Philippe Ledent

Senior Economist, Belgium, Luxembourg philippe.ledent@ing.com

Peter Virovacz

Senior Economist, Hungary peter.virovacz@ing.com

Inga Fechner

Senior Economist, Germany, Global Trade inga.fechner@ing.de

Dimitry Fleming

Senior Data Analyst, Netherlands <u>Dimitry.Fleming@ing.com</u>

Ciprian Dascalu

Chief Economist, Romania +40 31 406 8990 ciprian.dascalu@ing.com

Muhammet Mercan

Chief Economist, Turkey muhammet.mercan@ingbank.com.tr

Iris Pang

Chief Economist, Greater China iris.pang@asia.ing.com

Sophie Freeman

Writer, Group Research +44 20 7767 6209 Sophie.Freeman@uk.ing.com

Padhraic Garvey, CFA

Regional Head of Research, Americas padhraic.garvey@ing.com

James Knightley

Chief International Economist, US <u>james.knightley@ing.com</u>

Tim Condon

Asia Chief Economist +65 6232-6020

Martin van Vliet

Senior Interest Rate Strategist +31 20 563 8801 martin.van.vliet@ing.com

Karol Pogorzelski

Senior Economist, Poland Karol.Pogorzelski@ing.pl

Carsten Brzeski

Global Head of Macro carsten.brzeski@ing.de

Viraj Patel

Foreign Exchange Strategist +44 20 7767 6405 viraj.patel@ing.com

Owen Thomas

Global Head of Editorial Content +44 (0) 207 767 5331 owen.thomas@ing.com

Bert Colijn

Chief Economist, Netherlands bert.colijn@ing.com

Peter Vanden Houte

Chief Economist, Belgium, Luxembourg, Eurozone peter.vandenhoute@ing.com

Benjamin Schroeder

Senior Rates Strategist benjamin.schroder@ing.com

Chris Turner

Global Head of Markets and Regional Head of Research for UK & CEE chris.turner@ing.com

Gustavo Rangel

Chief Economist, LATAM +1 646 424 6464 gustavo.rangel@ing.com

Carlo Cocuzzo

Economist, Digital Finance +44 20 7767 5306 carlo.cocuzzo@ing.com

Article | 2 July 2018 10