

## 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 [playful prediction](#) 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 [approach looked at](#) '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.

[Economist Robert Frank argues](#) 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 [can be considered tournaments](#). 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 Akerlof 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.

Akerlof recounts in his [Nobel acceptance speech](#) that the paper was rejected by major journals as trivial and incorrect. Akerlof persisted, submitting his paper to the Quarterly Journal of Economics where it was finally published.

## Author

### **Amrita Naik Nimbalkar**

Junior Economist, Global Macro

[amrita.naik.nimbalkar@ing.com](mailto:amrita.naik.nimbalkar@ing.com)

### **Mateusz Sutowicz**

Senior Economist, Poland

[mateusz.sutowicz@ing.pl](mailto:mateusz.sutowicz@ing.pl)

### **Alissa Lefebvre**

Economist

[alissa.lefebvre@ing.com](mailto:alissa.lefebvre@ing.com)

### **Deepali Bhargava**

Regional Head of Research, Asia-Pacific

[Deepali.Bhargava@ing.com](mailto:Deepali.Bhargava@ing.com)

### **Ruben Dewitte**

Economist

+32495364780

[ruben.dewitte@ing.com](mailto:ruben.dewitte@ing.com)

### **Kinga Havasi**

Economic research trainee

[kinga.havasi@ing.com](mailto:kinga.havasi@ing.com)

### **Marten van Garderen**

Consumer Economist, Netherlands

[marten.van.garderen@ing.com](mailto:marten.van.garderen@ing.com)

### **David Havrlant**

Chief Economist, Czech Republic

420 770 321 486

[david.havrlant@ing.com](mailto:david.havrlant@ing.com)

### **Sander Burgers**

Senior Economist, Dutch Housing

[sander.burgers@ing.com](mailto:sander.burgers@ing.com)

**Lynn Song**

Chief Economist, Greater China

[lynn.song@asia.ing.com](mailto:lynn.song@asia.ing.com)

**Michiel Tukker**

Senior European Rates Strategist

[michiel.tukker@ing.com](mailto:michiel.tukker@ing.com)

**Michal Rubaszek**

Senior Economist, Poland

[michal.rubaszek@ing.pl](mailto:michal.rubaszek@ing.pl)

**This is a test author**

**Stefan Posea**

Economist, Romania

[tiberiu-stefan.posea@ing.com](mailto:tiberiu-stefan.posea@ing.com)

**Marine Leleux**

Sector Strategist, Financials

[marine.leleux2@ing.com](mailto:marine.leleux2@ing.com)

**Jesse Norcross**

Senior Sector Strategist, Real Estate

[jesse.norcross@ing.com](mailto:jesse.norcross@ing.com)

**Teise Stellema**

Research Assistant, Energy Transition

[teise.stellema@ing.com](mailto:teise.stellema@ing.com)

**Diederik Stadig**

Sector Economist, TMT & Healthcare

[diederik.stadig@ing.com](mailto:diederik.stadig@ing.com)

**Diogo Gouveia**

Sector Economist

[diogo.duarte.vieira.de.gouveia@ing.com](mailto:diogo.duarte.vieira.de.gouveia@ing.com)

**Marine Leleux**

Sector Strategist, Financials

[marine.leleux2@ing.com](mailto:marine.leleux2@ing.com)

**Ewa Manthey**

Commodities Strategist

[ewa.manthey@ing.com](mailto:ewa.manthey@ing.com)

## ING Analysts

### James Wilson

EM Sovereign Strategist

[James.wilson@ing.com](mailto:James.wilson@ing.com)

### Sophie Smith

Digital Editor

[sophie.smith@ing.com](mailto:sophie.smith@ing.com)

### Frantisek Taborsky

EMEA FX & FI Strategist

[frantisek.taborsky@ing.com](mailto:frantisek.taborsky@ing.com)

### Adam Antoniak

Senior Economist, Poland

[adam.antoniak@ing.pl](mailto:adam.antoniak@ing.pl)

### Min Joo Kang

Senior Economist, South Korea and Japan

[min.joo.kang@asia.ing.com](mailto:min.joo.kang@asia.ing.com)

### Coco Zhang

ESG Research

[coco.zhang@ing.com](mailto:coco.zhang@ing.com)

### Jan Frederik Slijkerman

Senior Sector Strategist, TMT

[jan.frederik.slijkerman@ing.com](mailto:jan.frederik.slijkerman@ing.com)

### Katinka Jongkind

Senior Economist, Services and Leisure

[Katinka.Jongkind@ing.com](mailto:Katinka.Jongkind@ing.com)

### Marina Le Blanc

Sector Strategist, Financials

[Marina.Le.Blanc@ing.com](mailto:Marina.Le.Blanc@ing.com)

### Samuel Abettan

Junior Economist

[samuel.abettan@ing.com](mailto:samuel.abettan@ing.com)

### Franziska Biehl

Senior Economist, Germany

[Franziska.Marie.Biehl@ing.de](mailto:Franziska.Marie.Biehl@ing.de)

### Rebecca Byrne

Senior Editor and Supervisory Analyst

[rebecca.byrne@ing.com](mailto:rebecca.byrne@ing.com)

**Mirjam Bani**

Sector Economist, Commercial Real Estate & Public Sector (Netherlands)

[mirjam.bani@ing.com](mailto:mirjam.bani@ing.com)

**Timothy Rahill**

Credit Strategist

[timothy.rahill@ing.com](mailto:timothy.rahill@ing.com)

**Leszek Kasek**

Senior Economist, Poland

[leszek.kasek@ing.pl](mailto:leszek.kasek@ing.pl)

**Oleksiy Soroka, CFA**

Senior High Yield Credit Strategist

[oleksiy.soroka@ing.com](mailto:oleksiy.soroka@ing.com)

**Antoine Bouvet**

Head of European Rates Strategy

[antoine.bouvet@ing.com](mailto:antoine.bouvet@ing.com)

**Jeroen van den Broek**

Global Head of Sector Research

[jeroen.van.den.broek@ing.com](mailto:jeroen.van.den.broek@ing.com)

**Edse Dantuma**

Senior Sector Economist, Industry and Healthcare

[edse.dantuma@ing.com](mailto:edse.dantuma@ing.com)

**Francesco Pesole**

FX Strategist

[francesco.pesole@ing.com](mailto:francesco.pesole@ing.com)

**Rico Luman**

Senior Sector Economist, Transport and Logistics

[Rico.Luman@ing.com](mailto:Rico.Luman@ing.com)

**Jurjen Witteveen**

Sector Economist

[jurjen.witteveen@ing.com](mailto:jurjen.witteveen@ing.com)

**Dmitry Dolgin**

Chief Economist, CIS

[dmitry.dolgin@ing.de](mailto:dmitry.dolgin@ing.de)

**Nicholas Mapa**

Senior Economist, Philippines  
[nicholas.antonio.mapa@asia.ing.com](mailto:nicholas.antonio.mapa@asia.ing.com)

**Egor Fedorov**  
Senior Credit Analyst  
[egor.fedorov@ing.com](mailto:egor.fedorov@ing.com)

**Sebastian Franke**  
Consumer Economist  
[sebastian.franke@ing.de](mailto:sebastian.franke@ing.de)

**Gerben Hieminga**  
Senior Sector Economist, Energy  
[gerben.hieminga@ing.com](mailto:gerben.hieminga@ing.com)

**Nadège Tillier**  
Head of Corporates Sector Strategy  
[nadege.tillier@ing.com](mailto:nadege.tillier@ing.com)

**Charlotte de Montpellier**  
Senior Economist, France and Switzerland  
[charlotte.de.montpellier@ing.com](mailto:charlotte.de.montpellier@ing.com)

**Laura Straeter**  
Behavioural Scientist  
+31(0)611172684  
[laura.Straeter@ing.com](mailto:laura.Straeter@ing.com)

**Valentin Tataru**  
Chief Economist, Romania  
[valentin.tataru@ing.com](mailto:valentin.tataru@ing.com)

**James Smith**  
Developed Markets Economist, UK  
[james.smith@ing.com](mailto:james.smith@ing.com)

**Suvi Platerink Kosonen**  
Senior Sector Strategist, Financials  
[suvi.platerink-kosonen@ing.com](mailto:suvi.platerink-kosonen@ing.com)

**Thijs Geijer**  
Senior Sector Economist, Food & Agri  
[thijs.geijer@ing.com](mailto:thijs.geijer@ing.com)

**Maurice van Sante**  
Senior Economist Construction & Team Lead Sectors  
[maurice.van.sante@ing.com](mailto:maurice.van.sante@ing.com)

**Marcel Klok**

Senior Economist, Netherlands

[marcel.klok@ing.com](mailto:marcel.klok@ing.com)

**Piotr Poplawski**

Senior Economist, Poland

[piotr.poplawski@ing.pl](mailto:piotr.poplawski@ing.pl)

**Paolo Pizzoli**

Senior Economist, Italy, Greece

[paolo.pizzoli@ing.com](mailto:paolo.pizzoli@ing.com)

**Marieke Blom**

Chief Economist and Global Head of Research

[marieke.blom@ing.com](mailto:marieke.blom@ing.com)

**Raoul Leering**

Senior Macro Economist

[raoul.leering@ing.com](mailto:raoul.leering@ing.com)

**Maarten Leen**

Head of Global IFRS9 ME Scenarios

[maarten.leen@ing.com](mailto:maarten.leen@ing.com)

**Maureen Schuller**

Head of Financials Sector Strategy

[Maureen.Schuller@ing.com](mailto:Maureen.Schuller@ing.com)

**Warren Patterson**

Head of Commodities Strategy

[Warren.Patterson@asia.ing.com](mailto:Warren.Patterson@asia.ing.com)

**Rafal Benecki**

Chief Economist, Poland

[rafal.benecki@ing.pl](mailto:rafal.benecki@ing.pl)

**Philippe Ledent**

Senior Economist, Belgium, Luxembourg

[philippe.ledent@ing.com](mailto:philippe.ledent@ing.com)

**Peter Virovacz**

Senior Economist, Hungary

[peter.virovacz@ing.com](mailto:peter.virovacz@ing.com)

**Inga Fechner**

Senior Economist, Germany, Global Trade

[inga.fechner@ing.de](mailto:inga.fechner@ing.de)



**Dimitry Fleming**

Senior Data Analyst, Netherlands

[Dimitry.Fleming@ing.com](mailto:Dimitry.Fleming@ing.com)

**Ciprian Dascalu**

Chief Economist, Romania

+40 31 406 8990

[ciprian.dascalu@ing.com](mailto:ciprian.dascalu@ing.com)

**Muhammet Mercan**

Chief Economist, Turkey

[muhammet.mercan@ingbank.com.tr](mailto:muhammet.mercan@ingbank.com.tr)

**Iris Pang**

Chief Economist, Greater China

[iris.pang@asia.ing.com](mailto:iris.pang@asia.ing.com)

**Sophie Freeman**

Writer, Group Research

+44 20 7767 6209

[Sophie.Freeman@uk.ing.com](mailto:Sophie.Freeman@uk.ing.com)

**Padhraic Garvey, CFA**

Regional Head of Research, Americas

[padhraic.garvey@ing.com](mailto:padhraic.garvey@ing.com)

**James Knightley**

Chief International Economist, US

[james.knightley@ing.com](mailto:james.knightley@ing.com)

**Tim Condon**

Asia Chief Economist

+65 6232-6020

**Martin van Vliet**

Senior Interest Rate Strategist

+31 20 563 8801

[martin.van.vliet@ing.com](mailto:martin.van.vliet@ing.com)

**Karol Pogorzelski**

Senior Economist, Poland

[Karol.Pogorzelski@ing.pl](mailto:Karol.Pogorzelski@ing.pl)

**Carsten Brzeski**

Global Head of Macro

[carsten.brzeski@ing.de](mailto:carsten.brzeski@ing.de)

**Viraj Patel**

Foreign Exchange Strategist

+44 20 7767 6405

[viraj.patel@ing.com](mailto:viraj.patel@ing.com)

**Owen Thomas**

Global Head of Editorial Content

+44 (0) 207 767 5331

[owen.thomas@ing.com](mailto:owen.thomas@ing.com)

**Bert Colijn**

Chief Economist, Netherlands

[bert.colijn@ing.com](mailto:bert.colijn@ing.com)

**Peter Vanden Houte**

Chief Economist, Belgium, Luxembourg, Eurozone

[peter.vandenhoute@ing.com](mailto:peter.vandenhoute@ing.com)

**Benjamin Schroeder**

Senior Rates Strategist

[benjamin.schroeder@ing.com](mailto:benjamin.schroeder@ing.com)

**Chris Turner**

Global Head of Markets and Regional Head of Research for UK & CEE

[chris.turner@ing.com](mailto:chris.turner@ing.com)

**Gustavo Rangel**

Chief Economist, LATAM

+1 646 424 6464

[gustavo.rangel@ing.com](mailto:gustavo.rangel@ing.com)

**Carlo Cocuzzo**

Economist, Digital Finance

+44 20 7767 5306

[carlo.cocuzzo@ing.com](mailto:carlo.cocuzzo@ing.com)