# One-Day Workshop: **The World Cup: What Economics can Learn from Football and Vice Versa**

Centre for Institutional Performance, University of Reading Wednesday 4th June 2014

## Schedule

9-9:30am Registration and tea/coffee.

- 9:30–11am Session 1:
  - **9:30–10:15am Thomas Peeters** (Antwerpen) "Using the wisdom of crowds: transfermarkt.de valuations and international football results"
  - 10:15–11am John Goddard (Bangor) "Forecasting end-of-season outcomes in English league football"
- 11–11:30am Tea/coffee.
- 11:30am-1pm Session 2:
  - 11:30am–12:15pm Peter Dawson (UEA) "Crime, Punishment and Performance in Professional Football"
  - 12:15–1pm Edoardo Gallo (Cambridge) "The Persistence of (Mis)Trust"
- 1-2pm Lunch.
- 2-3:30pm Session 3:
  - **2–2:45pm Rob Simmons** (Lancaster) "Rank-order tournaments, probability of winning and effort: Evidence from Champions League qualifying rules"
  - 2:45–3:30pm Ruud Koning (Groningen) "Modern Soccer Demand"
- 3:30–4pm Tea/coffee.
- **4–5pm** Keynote: **Ignacio Palacios Huerta** (LSE) "Beautiful Game Theory: How Soccer Can Help Economics".
- 5:45pm Dinner (Browns Bar and Brasserie, The Riverside, The Oracle Centre).

## Speakers

Peter Dawson University of East Anglia. http://ideas.repec.org/f/pda256.html.

Edoardo Gallo University of Cambridge. https://sites.google.com/site/edoardogallo/Home/Publications.

John Goddard Bangor Business School, http://ideas.repec.org/f/pgo580.html

Ruud Koning Rijksuniversiteit Groningen, http://ideas.repec.org/e/pko1.html.

Prof. Ignacio Palacios-Huerta London School of Economics. http://ideas.repec.org/e/ppa164.html.

Thomas Peeters Universiteit Antwerpen, http://ideas.repec.org/f/ppe415.html.

Rob Simmons Lancaster Management School, ideas.repec.org/f/psi378.html.

## Details

#### Location

Room G11, Henley Business School, Whiteknights Campus, University of Reading. Building 138 on the map attached to this document.

### Getting Here

If you arrive into Reading Railway station (the Railair Coach from Heathrow (see www.railair.com/ also arrives here), there are direct buses to the Whiteknights campus; the 20 and 21 which depart opposite the railway station stop within the University (the red dot nearest to buildings 9 and 27 is the first stop where you should disembark to get to Henley Business School).

Car parking is very limited on campus; you are recommended to travel via public transport to the university.

#### Dinner

There will be an informal dinner in the early evening, in the town centre near the railway station (which has excellent links to London and Heathrow and Gatwick Airports), to which all attendees are invited. Dinner for non-speakers is at your own expense. The venue is Browns Bar and Brasserie, which is in the Oracle Shopping Centre. Information will be provided, and an opportunity to express interest in joining us, during the workshop. The Oracle Centre is easily accessed using the 20 and 21 buses from the University Campus, and it's about a 35 minute walk from the workshop venue (see goo.gl/maps/py0SQ).

#### Attendance

If you wish to attend, please register with James Reade at j.j.reade@reading.ac.uk.

## 1 Talk Abstracts

Goddard, "Forecasting end-of-season outcomes in English league football"

This paper examines the estimation of probabilities for end-of-season outcomes in the English Premier League and Football League, conditional on the teams' league standings throughout the football season. The end-ofseason outcomes considered are divisional winners, promotion and relegation. The probabilities are computed by means of a simulation procedure, which is calibrated using a forecasting model for match results estimated from data from preceding football seasons. The simulation procedure generates simulated results for all matches scheduled to be played from the time at which the probabilities are required to the end of the football season. The probabilities for end-of-season outcomes obtained using the simulation procedure are compared with implied probabilities based on published bookmaker odds for the same end-of-season outcomes. The adjustment throughout the season of the simulated probabilities and the bookmaker implied probabilities to 'news', in the form of the latest match results, is examined.

- **Peeters, "Using the wisdom of crowds"** In this paper I test the "wisdom of crowds" hypothesis, which maintains that large groups of non-experts often provide more accurate assessments than individual experts. The "crowd" in this case are the registered users of a web platform, transfermarkt.de, on which football fans may freely discuss player qualities to produce an estimate of their market value. I show that a simple model based on crowd valuations leads to a better goodness-of-fit for international football results than predictions implied by betting odds. I also test for the importance of within team variation in valuations and find that these have no explanatory power. On top of this, I asses possible favoritism biases in crowd valuations stemming from people overvaluing players which play at teams they support.
- Palacios-Huerta, "Beautiful Game Theory" From the publicity for the book "Beautiful Game Theory", "A wealth of research in recent decades has seen the economic approach to human behavior extended over many areas previously considered to belong to sociology, political science, law, and other fields. Research has also shown that economics can provide insight into many aspects of sports, including soccer. Beautiful Game Theory is the first book that uses soccer to test economic theories and document novel human behavior.

In this brilliant and entertaining book, Ignacio Palacios-Huerta illuminates economics through the world's most popular sport. He offers unique and often startling insights into game theory and microeconomics, covering topics such as mixed strategies, discrimination, incentives, and human preferences. He also looks at finance, experimental economics, behavioral economics, and neuroeconomics. Soccer provides rich data sets and environments that shed light on universal economic principles in interesting and useful ways.

Essential reading for students, researchers, and sports enthusiasts, Beautiful Game Theory is the first book to show what soccer can do for economics."

- Simmons, "Rank-order tournaments, probability of winning and effort" Rank order tournaments are commonly used in different organizations where the ordinal rank of output determines agents' compensation, yet output is only determined ex-post and in part by some random component. Not withstanding the fact that under certain assumptions these tournaments theoretically achieve first-best agents' effort, tournaments are hard to test empirically because it is difficult to observe both a principal's rewards and agent's effort. A sector where both can be observed is the sports industry, e.g. golf and tennis. We follow this direction and analyse how a change in the probability of winning a tournament affect an agent's effort. Specifically, we use the qualification rules for entry into the group stage of the UEFA Champions' League, which is a multi-national European competition for top League clubs across Europe. We use data from fourteen different leagues to test whether team effort responds to a change in the number of slots that are assigned from the Champions League qualification rules to teams from each league, and thus the probability of winning the tournament. Qualification for the Champions' League, which generates substantial club revenues, can be thought of as a tournament in itself. We measure team effort by investment in payroll at the beginning of a season and the probability of winning the tournament with the number of slots each country gets in the Champions League. (work joint with Colin Green and Fernando Lozano)
- Ruud Koning, "Modern Soccer Demand" In most professional soccer leagues, television revenues exceed revenues from ticket sales. However, empirical studies analyzing demand for soccer at a team level almost always are based on attendance data. In this paper we analyze television demand for soccer games. Unlike live attendance, television demand is not constrained by the capacity of the stadium, or determined by time and cost of travel to attend an away game. One of the covariates used to explain variation in television demand is the importance of a particular match for the championship. If anything, one would expect television demand to be more dependent on relevance than live demand: the market is not constrained by costs of travel. We show how the estimates of the model can be used to divide revenue obtained from collective sale of the broadcasting rights. Moreover, in a bivariate model both live attendance and television demand are modelled to see whether the same covariates are relevant.
- **Dawson, "Crime, punishment and performance in professional football"** It is without doubt that player indiscretions — both verbal and physical — and the resulting sanctions imposed by match officials (referees) are an integral part of professional team sports that have become an increasingly popular area of academic endeavour. This is particularly the case in professional football (soccer) where a growing literature has investigated the on-field performance of agents. It is well documented that football, and sport more generally, has a particular advantage over other industries in that these agents are easy to identify and data on their performance are more readily available. Furthermore, the ability to undertake field experiments and, specifically, natural experiments has provided opportu-

nities for sports economists to make useful contributions to the area of behavioural economics. In this talk I will review the growing number of papers of player and referee behaviour in football, how these have been informed by economic principles and what lessons have been learnt. I conclude by offering some suggestions for future research.

Gallo, "The Persistence of (Mis)Trust" This paper investigates the relation between the level of trust of an immigrant worker's home country/region and his actions on the job in a high stakes profession. The data consists of more than one million actions performed by football players over two seasons of the English Premier League. We show that players born in low trust countries tend to perform more individualistic actions on the job. We exploit variations in trust levels across regions in Europe to show that the same effects are present if we limit the sample to Europeans. The duration of immigrant players' stay in the UK leads to a gradual convergence of behaviour to the UK baseline. However, the adaptation process is very slow: it would take 40—45 years (10—15 years for European players) for the differences in behaviour to disappear. There is no relation between trust in players' home country/region and control actions that are unrelated to how individualistic players are.

