

BRIEF REPORT

Nils Van Damme and Stijn Baert (2019). Home advantage in European international soccer: Which dimension of distance matters? Economics Discussion Papers, No 2019-19, Kiel Institute for the World Economy. <http://www.economics-ejournal.org/economics/discussionpapers/2019-19>

The authors investigate how different distance dimensions between home and away teams affect match results, as measured by goal difference, victory and number of points. The authors use a large data set based on UEFA Champions League and UEFA Europa League.

With this paper, the authors contribute to the literature about home advantage in soccer in one main way. They investigate the effect of distance (i.e. altitude and travel length) and of three additional dimensions previously unexplored: climatic differences (i.e. temperature and precipitation), cultural distance, and disparities in economic prosperity between the regions of the home and away teams.

The authors find that altitude, spectators and teams' relative strength matters to determine the result: theirs increase increases the home advantage. Moreover, they find that the direction of the differences in altitude, spectators and teams' relative strength matter as well. Finally, absolute wealth distance affects the home advantage in terms of goal difference.

The authors conclude the paper by discussing the main limitation of the study: the coefficients cannot be given causal interpretation.

Main comment

First

The bottom of page 14 reads: "Each 100 m of rising above sea level is associated with an increase of the home advantage by 0.032 points. A possible explanation for this may be that the available oxygen decreases with increasing altitude. Home team players are likely to be more adapted to performing well in the condition of low oxygen levels. Moreover, this association is in line with Pollard and Armatas (2017), who reported that in the group stages of the qualification for the 2006, 2010, and 2014 World Cup finals, each 1,000 m of additional altitude difference resulted in 0.115 additional points to the home team."

This result is in line in terms of direction with that in Pollards and Armatas, but not in terms of magnitude. You obtain that each 100 m in altitude corresponds to 0.032 additional points, which is equivalent to say that each 1,000 m in altitude corresponds to 0.320 additional points; this is almost three times the effect they find.

Unfortunately, I cannot see the descriptive statistics on absolute altitude in their paper, but I guess that they have large variation and a greater maximum altitude, given the data they use on world cup qualifications (think about the altitude difference between Southern American national teams).

I would highlight this difference in magnitude between your result and theirs.

Related to the above comment, a larger effect—obtained with the analysis of Southern American teams—is found also in:

McSharry, P. E. (2007). Effect of altitude on physiological performance: a statistical analysis using results of international football games. *Bmj*, 335(7633), 1278-1281.
<https://www.bmj.com/content/335/7633/1278.full>

I would add this paper to the references list; it is published in an important journal and might benefit the visibility of your article.

Second

I do not think that there is a strong difference in altitude among European teams homes, and that such a difference could have an impact on performance; I am afraid that your results on altitude might be driven by a few outliers. In general, for all of the dimensions, it would be interesting to see the descriptive statistics (1 observation -> 1 team, and for each team there is the average difference with all of the other teams or with all of the teams they have met in European cups). This could be done for each dimension you explore.

Minor comments

1. Bottom of page 6:

“The mean value of 0.000 is a direct consequence of the construction of our dataset, where, as aforementioned”

The mean value of what variable? You are probably writing about the goal difference.

2. First paragraph of page 12:

“... (ii) the expected probability of a victory with 18.3 percentage points, and (iii) the expected number of points with 0.550, ceteris paribus.”

Is the use of the preposition WITH correct? Maybe BY is more appropriate?

3. Ponzio and Scoppa’s paper has been published:

Ponzio, M., Scoppa, V. (2018). Does the home advantage depend on crowd support? Evidence from same-stadium derbies. *Journal of Sports Economics*, 19(4), 562-582.

4. Spolaore and Wacziarg’s paper has been published in a book:

Spolaore, E., Wacziarg, R. (2016). Ancestry, language and culture. In *The palgrave handbook of economics and language* (pp. 174-211). Palgrave Macmillan, London.

5. In light of different magnitudes, from different studies, on the effect of altitude, perhaps future studies could focus on non-linear effects.