



League Ladder

One goal-rate offset per league, fitted where leagues actually meet.

European ties are the only matches in which two leagues play each other, so they identify a multiplier per league. With it, any side in any covered league can be priced against any other.

SPORT

Football

FAMILY

Match pricing

LICENCE

£349

one-off, perpetual

RUNNING IN THE PLATFORM

<https://edgewortharena.com/arena/api/europe/match?home=E0:arsenal&away=N1:ajax>

Inputs

NAME	TYPE	UNITS	WHERE IT COMES FROM
european_matches	list of (date, home, away, competition, goals)	counts	the platform's European ingest, seven seasons
domestic_fits	dict of league -> fitted model	-	the Match Price Engine, one fit per league
reference (optional)	league code	-	your choice of the league fixed at 1.00

Outputs

NAME	TYPE	UNITS	NOTES
delta	float per league	log goal rate	
goal_multiplier	float per league	x reference	
interval	(low, high) per league	x reference	
outside	float	log goal rate	one shared offset for leagues with no domestic fit, plus a shrunk residual per side

Method

- 1 Write $\log E[\text{goals}] = m + \text{attack}(\text{home}) + \text{defence}(\text{away}) + h + \delta(\text{league of home}) - \delta(\text{league of away})$, holding the domestic strengths fixed.

THIS IS THE SAMPLE

The method runs to 3 steps; one is shown. The assumptions, the limits, the module layout and the reference implementation come with the licence. Everything on the page below this -- what the model was measured at -- is the same in both versions, because that is the part you should not have to take on trust.

What it was measured at

Fitted on the European ties in the store, with the reference league pinned at 1.00.

MEASURE	RESULT	READING
European matches in the fit	2,832	
Leagues placed	14	
Top of the ladder	Premier League x1.00	
Bottom of the ladder	Super League Greece x0.45	
Widest interval	Premier League x0.82 to x1.22	few European ties, and the price should say so

Assumptions

What has to be true for the numbers to mean what they say.

- A side carries the level of the league it plays in now, which is why a relegated club's European run counts towards the division it is in today.

Limits

Where it is known to be wrong. Published because a model without stated limits is one nobody has pushed on.

- Leagues with fewer than about fifty European matches have intervals wide enough to swallow the difference between them; the page prints those intervals.

LICENCE

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