

Appendix A: List of Clubs that have participated in the Football League in every season between 1992/3 and 2012/13

Arsenal	Manchester United
Aston Villa	Middlesbrough
Barnsley	Millwall
Birmingham City	Newcastle United
Blackburn Rovers	Northampton Town
Blackpool	Norwich City
Bolton Wanderers	Notts County
Bournemouth	Nottingham Forest
Bradford City	Oldham Athletic
Brighton and Hove Albion	Peterborough United
Bristol City	Plymouth Argyle
Bristol Rovers	Port Vale
Burnley	Portsmouth
Bury	Preston North End
Cardiff City	Queens Park Rangers
Charlton Athletic	Reading
Chelsea	Rochdale
Chesterfield	Rotherham United
Colchester United	Scunthorpe United
Coventry City	Sheffield United
Crewe Alexandra	Sheffield Wednesday
Crystal Palace	Southampton
Derby County	Southend United
Everton	Stoke City
Fulham	Sunderland
Gillingham	Swansea City
Hartlepool	Swindon Town
Huddersfield Town	Tottenham Hotspur
Hull City	Walsall
Ipswich Town	Watford
Leeds United	West Bromwich Albion
Leicester City	West Ham United
Leyton Orient	Wigan Athletic
Liverpool	Wolverhampton Wanderers
Manchester City	

Appendix B: Alternative W -matrices and their effects on the estimated coefficients

A number of alternative W -matrices are considered by this paper. However, as the results are consistent regardless of the choice of W -matrix, we choose to present only one estimation in the main body of the text. We consider four alternative W -matrices; (i) global distance, (ii) distance truncated at the median, (iii) nearest neighbour, and (iv) population weighted distance matrix. The first W -matrix utilised in the preferred matrix and is presented in the main text. This is the global distance and it is a W -matrix which contains information on the distance between each club, no cut off distance is assumed and spillovers are assumed to occur between every club. The second measure is similar to the first, however, spillovers are truncated at the median distance value. Therefore, clubs on the periphery, under this specification, are likely to benefit from much smaller spillovers than assumed under the initial model. The third spatial weight assumed is the nearest neighbour. This assumes that spillovers are dependent upon the clubs nearest neighbour only. The final specification is a population-weighted spatial weight matrix which weights the distance between clubs by population, essentially assigning a stronger association between clubs if they are in more densely populated regions. The estimations of our model using all four weights are presented below. While the coefficients of the model vary dependent upon the precise specification of W , we note that the coefficients remain significant and the magnitudes do not change greatly. Therefore, we conclude that the results obtained in our paper are not dependent upon the W specification chosen.

Table B1: Estimation using various *W*-matrices.

	W	W-Median	W-Max	W-Pop
Weighted Spatial Performance ($W_{jt}Y_{it}$)	0.0946** (0.0460)	0.0831** (0.0388)	0.0268** (0.0114)	0.0946** (0.0460)
Managerial Change	-0.0782*** (0.0158)	-0.0782*** (0.0158)	-0.0783*** (0.0158)	-0.0782*** (0.0158)
Club Wealth	0.0340*** (0.0094)	0.0341*** (0.0094)	0.0332*** (0.0093)	0.0340*** (0.0094)
London	0.1494* (0.0876)	0.1505* (0.0878)	0.1537* (0.0865)	0.1494* (0.0876)
Population Density	0.0154 (0.0262)	0.0144 (0.0263)	0.0210 (0.0254)	0.0154 (0.0262)
Division 2	-0.7978*** (0.0265)	-0.7979*** (0.0265)	-0.7981*** (0.0265)	-0.7978*** (0.0265)
Division 3	-1.4979*** (0.0364)	-1.4973*** (0.0364)	-1.4973*** (0.0364)	-1.4979*** (0.0364)
Division 4	-2.4838*** (0.0458)	-2.4834*** (0.0458)	-2.4807*** (0.0459)	-2.4838*** (0.0458)
Promotion	-0.2976*** (0.0269)	-0.2976*** (0.0269)	-0.2969*** (0.0270)	-0.2976*** (0.0269)
Relegation	0.0308 (0.0278)	0.0311 (0.0278)	0.0320 (0.0278)	0.0308 (0.0278)
Constant	0.2971 (0.2208)	0.3029 (0.2212)	0.2757 (0.2178)	0.2971 (0.2208)
R^2	0.8865	0.8865	0.8876	0.8866
Obs	1,449	1,449	1,449	1,449

Notes

1: ***, **, and * indicate significance at the 99, 95 and 90 percent confidence level.

2: W is the W matrix as defined and used in the main text. W-median is a W matrix as defined previously but with any distance above the median coded as 0. W-max is the nearest neighbour W matrix. W-pop is a population weighted W matrix where population in this case is the population density of the region the club is located in.

Appendix C: Testing for Spatial Dependence

Figure C1: Plot of Moran's I p-values for each year

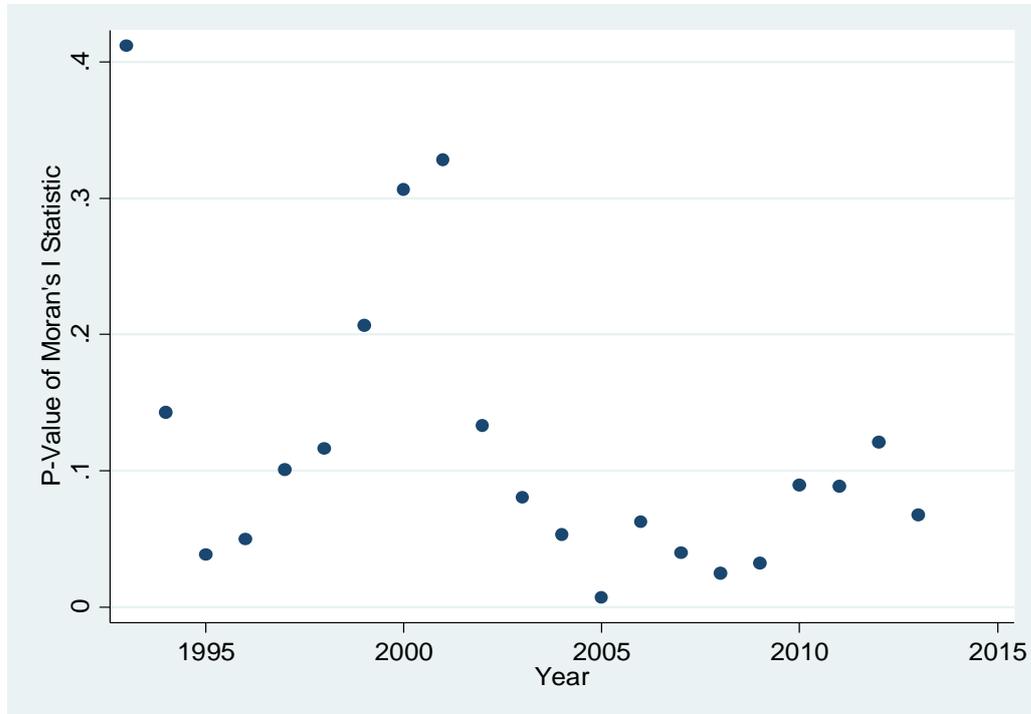
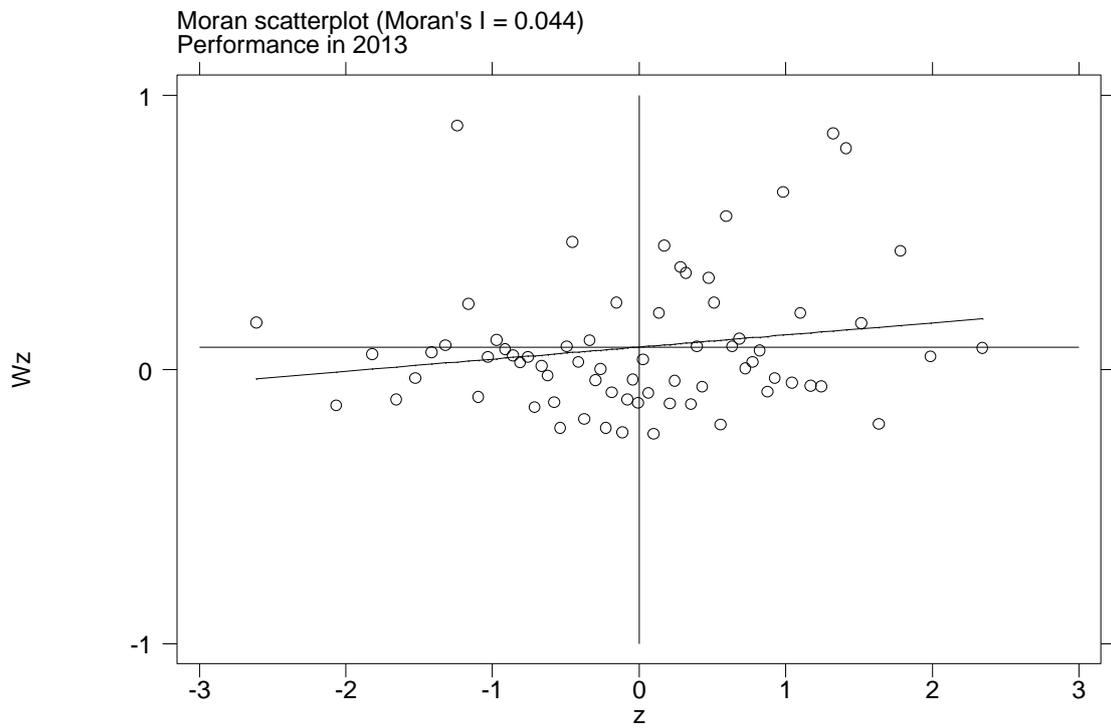


Figure C2: Moran's I Plot for 2013



Appendix D: Estimations of Equation (1) excluding London Clubs

As a robustness check to ensure that the significant spatial effects in our analysis are not solely driven by a ‘London-effect’ we estimate equation (1) excluding London clubs. The results of this estimation, using our preferred W matrix, are presented in Table A4.1 below. It can be seen that the spatial coefficient remains statistically significant. This suggests that spatial dependence in club performance exists for clubs in the English Leagues that are not London-based.

Table D1: Estimation using clubs outside of London

	Clubs Outside London
Weighted Spatial Performance ($W_{jt}Y_{it}$)	0.0851*** (0.0271)
Managerial Change	-0.0776*** (0.0170)
Club Wealth	0.0219** (0.0102)
London	na
Population Density	0.0247 (0.0242)
Division 2	-0.7982*** (0.0282)
Division 3	-1.5086*** (0.0386)
Division 4	-2.5008*** (0.0487)
Promotion	-0.3014*** (0.0286)
Relegation	0.0259 (0.0292)
Constant	0.4321** (0.2220)
R^2	0.8846
No of Obs	1,260

Notes

1: ***, **, and * indicate significance at the 99, 95 and 90 percent confidence level.