The Economics of Football

Second edition

Stephen Dobson

and

John Goddard



Contents

	Preface	page xi
	Acknowledgements	xiii
	List of figures	xiv
	List of tables	XV
1	Introduction	1
	1.1 The economics of professional team sports: three seminal	
	contributions	2
	1.2 Outline of this volume	8
2	The economic theory of professional sports leagues	12
	2.1 The North American professional team sports model	14
	2.2 A model of an n-team league	19
	2.3 A model of a two-team league	23
	2.4 Revenue sharing	27
	2.5 Restraints on expenditure on players' salaries	33
3	Competitive balance, uncertainty of outcome and home-field advantage	ge 42
	3.1 Measuring competitive balance and competitive inequality	42
	3.2 Home-field advantage	50
	3.3 Distributional properties of the goals scored by the home and	50
	away teams	59
	3.4 Good and poor sequences, and persistence in football match results	67
4	Forecasting models for football match results	79
•	4.1 Previous literature on modelling and forecasting match results	• • •
	in football	79
	4.2 A goals-based forecasting model	82
	4 3 Probabilistic forecasts for match results in 'scores'format	88

Contents

	4.4 A results-based forecasting model	95
	4.5 Probabilistic forecasts for match results in 'win-draw-lose' format	t 98
	4.6 Evaluation of the goals-based and results-based forecasting models	100
5	Game theory and football games	106
	5.7 The penalty kick	107
	5.2 A game-theoretic model of in-play strategic choice for football	
	teams	111
	5.5 The timings of player dismissals and goals	119
	5.4 An empirical model for the in-play arrival rates of player	
	dismissals and goals	122
	5.5 Estimation results and interpretation	124
	5.6 Stochastic simulations for in-play match result probabilities	
	conditional on the current state of the match	130
6	English professional football: historical development and commercial	
	structure	139
	6.1 English professional football: competitive structure and team	
	performance	139
	6.2 Match attendances	150
	6.3 Financial structure of English football: overview of profit and loss	
	accounts	159
	6.4 Gate revenues and admission prices	162
	6.5 Broadcast revenues	171
	6.6 Football's labour market: players' salaries and the transfer	
	system	179
	6.7 Ownership, governance and finance	186
7	Determinants of professional footballers'salaries	197
	7.1 The compensation of professional footballers	198
	7.2 The economics of superstars	201
	7.3 Rank-order tournaments and intra-team earnings distributions	204
	7.4 Determinants of players' compensation: empirical evidence	209
8	Professional footballers: employment patterns and racial discrimination	216
	8.1 Employment mobility, migration and career structure in English	
	football	217
	8.2 International migration of professional footballers	227
	8.3 Racial discrimination in professional team sports	236
9	The football manager	249
	9.1 The role of the football manager	251
	9.2 Measuring the managerial contribution: the production frontier	
	approach	ISA

	Contents	ix
	9.3 Patterns of managerial change in English football	260
	9.4 Determinants of managerial change	270
	9.5 Estimation of hazard functions for managerial departure	276
	9.6 The effect of managerial change on team performance	285
	9.7 Managerial succession ejfects in English football	289
10	The football referee	295
	10.1 The role of the football referee	296
	10.2 Favouritism and referee behaviour	298
	10.3 The incidence of disciplinary sanction in English Premier	
	League football	303
11	Spectator demand for football	321
	11.1 Econometric analysis of football attendances	322
	11.2 Modelling the demand for attendance at English league football, 1947-1997	336
	11.3 Explaining base attendances, and the loyalty, league position,	
	price and goals scored coefficients	346
12	Gambling on football	352
	12.1 Previous evidence on the informational efficiency of football and other sports betting markets	353
	12.2 A forecasting model for half-timel full-time match outcomes	365
	12.3 Comparing the model's probabilistic forecasts with betting odds 12.4 Testing the informational efficiency of the half-time/full-time	367
	fixed-odds betting market	371
13	Football around the world: France, Germany, Brazil, Japan and China	380
	13.1 France	380
	13.2 Germany	385
	13.3 Brazil	391
	13.4 Japan	395
	13.5 China	399
14	The economics of the World Cup	405
	14.1 The World Cup	407
	14.2 Costs and benefits of hosting a mega sporting event	409
	14.3 Prospective economic impact studies	413
	14.4 Retrospective economic impact studies	415
	14.5 Intangible benefits of mega events	417
	References	423
	Index	447