
Institutional Responses to Uncertainty: Evidence from the Transfer Market

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Abstract

In this paper we examine the organisation of the transfer market for association football players in the English Football League adopting a transactions cost framework. The transfer system for professional footballers is effectively the game's labour market and we argue that it is characterised by small numbers bargaining and uncertainty and that therefore the transactions cost paradigm is relevant. We analyse 7,367 league transfers between English Football League clubs covering the seasons 1977-8 through 1993-4. Our results suggest that the transfer market has evolved in distinctive ways in response to informational problems. In particular we identify long-term relationships between clubs, well established regional markets and the development of the loan system as rational responses to institutional uncertainty. Our conclusion also contains some observations regarding the implications of recent developments affecting the transfer system.

1. Introduction

THIS PAPER examines the organisation of the transfer market in the English Football League adopting a transactions cost framework. We start from the premise that football clubs are economic agents whose behaviour can be analysed in an analogous way to that of firms. Viewing professional sports clubs, or teams, as economic agents is nothing new in the economics of sport. There is a long standing debate in the literature concerned with the question of whether sports clubs are profit- or utility- maximisers and,

if the latter, what are the arguments of a club's objective function (see e.g. Sloane, 1971). No real consensus has emerged on these points but it is common to treat sports clubs as rational economic agents and to assume that they are maximising something. Research along these lines has centred around the output or production of clubs in terms of results and achievements, the demand for their output in terms of attendances, and the characteristics of sporting labour markets.² With respect to the latter, researchers have been mainly concerned with contractual outcomes, in the form of fees paid for players or more particularly salaries and wages. Traditionally, research in this context has been less concerned with the institutional setup that characterises the negotiations between clubs where contractual outcomes are usually determined. Even less of the existing research has been directed at professional football. In this paper we attempt to address both failures by focusing on the institutional framework of the transfer market. The market itself is by any definition idiosyncratic and we examine whether the player transfer system has evolved in response to some particular characteristics of the industry of which it is a part. As such, our study may be viewed as a contribution to the more general research on the evolution of institutions.

We approach the task of examining the very specific institutional arrangements that characterise the professional footballers' transfer market in the spirit of evolutionary economics, by assuming that existing arrangements represent the outcome of economic natural selection (e.g.

Hodgson, 1995). In the next section we summarise the basic message of transactions cost economics, and in the following section we discuss the relevance of the transactions cost paradigm to the transfer market for professional footballers as operated in the English Football League. Our empirical analysis utilises a dataset of 7,367 player transfers between English Football League clubs, during the period 1977-8 to 1993-4, to investigate the presence of adaptive response to informational problems. Our concluding remarks contain a summary of our findings together with some observations on recent developments in the transfer market.

2. Transactions Cost Economics

Bowles and Gintis (1993) note that until relatively recently, distinctions between markets, and therefore the study of their evolution, has generally been ignored in mainstream economics. However this changed with the emergence of transactions cost economics and the rediscovery of *homo economicus* as 'self-interest seeking with guile' (Bowles and Gintis, 1993 p. 84, quoting Williamson, 1984 p. 198). According to Bowles and Gintis the incorporation of '*homo economicus*' into neo-classical economics has been achieved by dropping the 'untenable assumption that enforcement of contracts is costless and perfect, and that information about what is being traded and about the actions of agents are costlessly observable' (Bowles and Gintis, 1993 pp. 84-5). This step initiated a large body of research into the problem of endogenous enforcement or, in perhaps more familiar terms, the problem of finding optimal incentives under conditions of moral hazard or adverse selection. In either case the benefit to the parties from the transaction depends on their capacities to enforce competing claims. Thus, in the view of Bowles and Gintis 'the success of institutions depends on their effectiveness in enforcing claims, not simply on their allocative efficiency' (Bowles and Gintis, 1993 p. 85). This suggests that the evolution of institu-

tions is contingent on the particular enforcement mechanisms devised, which implies path dependency. The latter belies the lack of distinction between markets that once relegated the study of the evolution of institutions to the periphery of economic study.

In transactions cost terms, the problem for agents is that markets and organisations can fail due to one or more of three reasons: (a) small numbers bargaining, (b) contractual incompleteness, and (c) strategic misrepresentation risk (see e.g. Williamson, 1986). Whilst the first is associated with transactions specificity (meaning that the identity of the traders matters) the second and third are more likely to arise because of uncertainty (*ex-ante* in the case of (b) and both *ex-ante* and *ex-post* in the case of (c)). Such circumstances give agents the motive to develop long-term alliances in order to realise 'economies of exchange'. But since not all future contingencies can be anticipated, such relationships are vulnerable to opportunistic behaviour as agents seek to improve on deals. Opportunism is very likely to lead to disputes and the consequent transactions costs could prove prohibitive.

Three main institutional solutions to this kind of failure are discussed by Williamson (1986): (i) the internalisation of transactions costs through integration or common ownership; (ii) long-term contracts coupled with third party arbitration or alternative governance structures, and (iii) relational contracting. The latter is of particular interest in the context of the transfer market where buyers and sellers are easily identified and finite in number. Williamson (citing MacNeil, 1978 p.85) describes relational contracting as contracting which displaces discreteness where the relation takes on the properties of 'a minisociety with a vast array of norms beyond those centred on the exchange and its immediate processes' and the reference point is the 'entire relation as it has developed...[through] time' (Williamson, 1986 p. 105) Under relational contracting the evolution of personal and institutional relations generates

reputation effects that provide the economic motivation for desisting from opportunistic behaviour; the cost to such behaviour being the loss of reputation and the termination of exchange. It is on this basis that it can be 'cost reducing to forgo the flexibility of spot contracting and secure long-term commitment from trading partners' (Bowles and Gintis, 1993 pp.88-9).

Thus internalisation of one kind or another, long-term contracting coupled with arbitration or alternative governance structures, and relational contracting are all possible responses to market failures arising out of transaction specificity and uncertainty. Which particular response might follow in a given circumstance, or what particular form such a response might take are much more difficult to predict. As yet there appears to be no consensus on how transactions can be matched with institutional modes for their organisation although Williamson (1986, Ch. 7) provides some indication. Given path dependency it is arguable that structures peculiar to particular markets should not be ruled out. However, it would be reasonable to expect that even if a particular structure appeared to be unique, its form and function could be interpreted within the overall context of the transactions cost paradigm. This is what we investigate in our paper in the context of the transfer market.

3. The Transfer Market

The transfer market for association football players in the English Football League shares similarities with other sports industry labour markets, but sporting labour markets are very different from other labour markets. A notable feature of the transfer market is that clubs receive fees for transferred players and that these fees are often large (by any definition). To our knowledge there are no non-sports labour markets where employers receive a payment of this kind when an employee leaves to take up employment elsewhere. Some form of 'transfer market' in which players are traded between clubs is however a fea-

ture of many professional team sports. From the point of view of the players, the transfer market should enable and facilitate their movement in search of better opportunities, higher earnings, career development or increased job satisfaction. So far as the clubs are concerned, the system facilitates and organises the acquisition and exchange of players to enable the reconstitution of teams with the aim of increasing playing strengths and improving team performance to achieve sporting success, hopefully reflected in financial benefits of a variety of forms.

In general, the valuation of players by clubs engaged in buying and selling is based on a number of player characteristics including age, experience, potential, ability, star quality, and fitness and form. From the point of view of the buying club, the fee offered should be based on the present value of the future expected returns to be earned by the club from the player's employment during the period of contract. While the planning horizon for team building and anticipated returns varies between teams and according to circumstances, the time scale involved in the evaluation of a player may also vary with purchases of younger players involving longer-term considerations than those relevant to older, established players. To the selling club, a transfer of a player 'under contract' may be a voluntary act or is imposed on it for a variety of reasons including financial pressure, while 'end of contract' players have the freedom to move to another club anyway. A player may become surplus to requirements and placed on the transfer list during his contract, or not recontracted, while dissatisfied players may themselves put in a transfer request whilst under contract or reject new contracts. Where appropriate, selling clubs will seek compensation for loss of a player's potential contribution in the future and for any past investment in the player's development. Where a player's sale forms part of team rebuilding, the fee sought should also be compatible with making appropriate replacement purchases.

The motivation for, and mechanics of, player transfers, together with the determination of negotiated transfer fees between clubs, has been extensively examined in the academic literature in recent years (see e.g. Carmichael and Thomas, 1993; Carmichael *et al.*, 1999; Dobson and Gerrard, 1997a, 1997b; Reilly and Witt, 1995). In this paper we are concerned specifically with the relevance of the transactions cost paradigm in explaining the evolution of specific features of the transfer system, as operated in the English Football League, in response to informational problems. A transactions cost interpretation appears relevant because the transfer market is not a truly competitive market (although there are elements of competition present) due to small numbers bargaining and uncertainty.³ The transfer market would seem to be a particularly informative context to examine such issues, as in each recorded transfer the buyer and seller is explicitly recognised enabling each repeat trade to be identified. This contrasts with the anonymity involved in most market exchanges. Small numbers bargaining between clubs is relevant because players are not homogenous. Therefore, the identity of buyers and sellers matters. In an extreme case a particular club may seek to acquire a particular player in which case the situation will be one of bilateral monopoly. A more likely situation is where a particular player is sought by a number of clubs in which case the selling club has a degree of monopoly power. In either case scope for bargaining will raise transactions costs and the likelihood of opportunistic behaviour.

When purchasing players in the transfer market uncertainty arises for a number of reasons. First, there is uncertainty regarding the quality of the player himself. While certain aspects of a player's quality may be indicated, and to an extent measured, by past playing record, other aspects are more difficult to measure and identify e.g. attitude and commitment. While any potential problems of 'adverse selection' arising from health and fitness doubts can be controlled by insistence on

medical checks, those associated with 'moral hazard' possibilities, e.g. of reduced commitment after transfer, remain⁴ Second, a player's performance in any team depends on how well he fits into a specific team structure which, in turn, depends on both the team (and its management) and the player himself: it obviously does not follow that if a player plays well for one club he will automatically play well for another⁵ In addition, a single player's productivity is entangled with that of the team whose performance is itself influenced by that of other teams met in direct competition.⁶ In sum, players may have a range of attributes, apart from skill, which are difficult or impossible to measure and identify prior to purchase. These may impinge negatively or positively on their own performance as well as that of their new team e.g. while some players can boost team morale and performance, the acquisition of trouble makers might well have the opposite effect.

The most a prospective buyer can expect to know about any player before he comes to the club is how well he is playing for his current team, and how well he has performed for previous clubs or possibly for his country internationally. But, however well a player has performed in the past is no guarantee of how well he will perform in the future especially for a different club. Apart from anything else the age factor (and its relation with experience) is a crucial consideration. Clubs out of necessity make purchases on the basis of an estimate of the value of a particular player to the club and estimates can be wrong. Both buying and selling clubs are aware of the information problem but selling clubs will generally be better informed about a player's all round quality. This coupled with the degree of monopoly power associated with small numbers bargaining gives selling clubs an incentive to overvalue a player's worth to obtain a better deal. Buyers of course will know this and as a consequence the market may be characterised by asymmetric information with 'bad' players driving out 'good'. In addi-

tion, poor performance by a player can be attributed to factors that the selling club might have no knowledge of or that are outside the player's own control (e.g. injury, bad tactics). Thus problems of endogenous enforcement seem likely to be pertinent to the transfer market.

To an extent, the risk implied by the uncertainty arising from a player failing to fit in to a new team, or failing to fulfil expectations, is recoverable as players can be sold on to clubs where their style of play may be more suitable. Commonly accepted methods of signalling and selection may also be important. With regard to the former, players who request or put themselves up for transfer are signalling that they, at least, think they possess qualities and have something to contribute (in a specific or non-specific way) to a new club. In contrast, trouble makers and poor performers are more likely to be put up for transfer by a club. With regard to selection, only players who stand out in some way in terms of their playing performance or potential contribution will be bought.

The informational problems associated with uncertainty and asymmetric information in player transfers (both with respect to player characteristics and performance) have been formally addressed by the football authorities in England with the institution of a system of third party arbitration as implemented by the Football League Appeals Committee (FLAC). Established in 1977, the FLAC adjudicates on 'disputed' compensation fees for players moving from one club to another at the end of their contract. This can be viewed as a rational, institutional response to market failure, and not simply as a novel peculiarity of the particular market in question. Of particular interest is the fact that, over its period of operation, FLAC's arbitration decisions have evolved to include settlements incorporating 'additional clauses'. For example, 'top up' payments to sellers which become due after a player has made a certain number of appearances for a new club, or 'sell on' clauses guaranteeing the

selling club a proportion of any future transfer fee. 'Top up' payments are usually applied where a player's ability to settle at a higher level may be in doubt, while 'sell on' clauses are usually applied where a lower divisional club loses a player of high potential, and may reasonably claim a share of the profit made on any future resale, when and if the player's potential is fulfilled.

Given that the role and performance of the FLAC tribunal system has been the subject of detailed examination elsewhere (e.g. Speight and Thomas, 1997a),⁷ this paper concentrates on the roles of recoverable risk, signalling, screening and selection, by examining three other ways in which the transfer market may have evolved in order to deal with small numbers bargaining and imperfect information:

Relational and long-term contracting: Some clubs may enter into long-term selling or buying agreements with other clubs for economic reasons as discussed earlier.

Local or regional markets: These involve looser arrangements but are still based on informal face to face relations and may also exist between clubs. Such arrangements will be easier and less costly to sustain, and therefore more durable, the closer the geographical proximity of clubs. Monitoring of other clubs' players will also be easier and cheaper at a local level. There are, therefore, economic incentives for the establishment of local markets.

Loan trials: The loan system where players are transferred on a temporary basis between clubs is, ostensibly, a system for meeting short-term deficits in playing quality or strengths. But a fair number of temporary transfers result in permanent transfers. The loan system may therefore be acting as a way of removing uncertainty about a player's quality and the way he will fit into a particular club environment. In such cases the loan is more of a 'trial' and can be viewed as a means of internalising risk.

Whilst third party arbitration in the transfer market is a matter of fact, the existence of either

the institutional arrangements for long-term relationships, local markets or a trial (in the form of a loan) system needs substantiating. In the following section we examine our data set to see what, if any, evidence there is for suggesting systematic employment of these alternative methods of dealing with small numbers bargaining and uncertainty in the transfer market.⁸

4. Empirical Evidence

Our data set relates to 7,367 league transfers between English Football League clubs covering the seasons 1977-8 through 1993-94. Our data source is the Rothmans Football Yearbook for the relevant years. The data are limited to the transferred player's name, the date of transfer, the clubs involved, whether the transfer was tempo-

'buys' and 'sales'. It may be observed that, apart from two clubs who were members of the Football League for a few years only during the study period, the only club which appears in the bottom ten for both buyers and sellers is Tranmere Rovers. With respect to the most active clubs, Birmingham City and Sheffield United are in the top groups for both categories. Of particular interest, possibly, to football buffs is the appearance of one of England's leading clubs, Manchester United, as a relatively inactive buyer in the transfer market. This would seem to support the common perception of Manchester United's well developed youth policy in identifying young players.¹⁰ While all top ten selling clubs may be viewed as traditional big names in the sport, the bottom ten sellers are not. The dis-

Table 1: Least and most active clubs in the transfer market

| <i>Top 10 buyers</i> | | <i>Bottom 10 buyers</i> | | <i>Top 10 sellers</i> | | <i>Bottom 10 sellers</i> | |
|----------------------|-----|-------------------------|----|-----------------------|-----|---------------------------|----|
| Birmingham | 118 | Barnet* | 2 | Notts Forest | 173 | Southport* | 1 |
| Torquay | 115 | Southport* | 2 | Sheffield United | 155 | Barnet* | 2 |
| Sheffield United | 115 | Wycombe* | 2 | Everton | 153 | Aldershot | 20 |
| Plymouth | 109 | Tranmere | 36 | Tottenham | 144 | Tranmere | 31 |
| Peterborough | 108 | Ipswich | 38 | Leicester | 143 | Colchester | 33 |
| Lincoln | 108 | Arsenal | 42 | Sheffield Weds. | 141 | Hartlepool | 34 |
| Stoke | 107 | Scarborough* | 44 | Manchester City | 138 | Hereford | 35 |
| Carlisle | 104 | Liverpool | 48 | Southampton | 136 | Crewe | 37 |
| Swindon | 101 | Manchester Utd | 48 | Leeds | 136 | Rochdale | 38 |
| Stockport | 101 | West Ham Utd | 48 | Birmingham | 136 | N'hampton and Scarborough | 39 |

* These clubs were not members of the League for the full period of the study

rary or permanent and whether or not the transfer fee was the outcome of a FLAC tribunal decision.

In the data set, the maximum number of players bought by any club is 118 with a minimum of 2 and a median frequency of 79. With respect to sales, the respective values are 173, 1 and 72. All 96 clubs participating in the English Football League system during the study period are recorded, at least once, as a buyer or a seller, in the transfer market.⁹ Table 1 lists the ten most active clubs and a similar number of least active clubs in the transfer market with respect to both

inction with regards to the buying side is not so clear cut.

Tables 2 to 8 report the results of our investigation into long-term relationships, local markets and trials, employing a χ^2 test of independence. Tables 2 and 3 show the results of applying a χ^2 test of independence to each league club's record of transfers by buying and selling club respectively. On the buying (selling) side the χ^2 is significant when the pattern of transfers fails the independence test because a club has systematically bought (sold) more players from (to) particular

Table 2: Repeated long-term relationships with buying clubs

| Buying club | Selling clubs with which buying club has made a significant number of repeated contracts (number reported in brackets) | χ^2 | level of significance % |
|--------------------|--|---------------|-------------------------|
| Brentford [L] | Cambridge [EA] (6) Chelsea [L] (9) Wimbledon [L] (10) | 73.98 | 99 |
| Bury [NW] | Manchester City [NW] (10) Oxford [SE] (5) | 50.92 | 90 |
| Chester [NW] | Bury [NW] (6) Manchester City [NW] (9) | 49.15 | 90 |
| Darlington [N] | Carlisle [N] (9) Middlesbrough [N] (8) York [Y+H] (6) | 44.09 | 95 |
| Doncaster [Y+H] | Barnsley [Y+H] (6) Leeds [Y+H] (13) Sheffield United [Y+H] (5) Sheffield Wednesday [Y+H] (5) | 94.00 | 99 |
| Gillingham [SE] | Charlton [L] (8) Tottenham [L] (9) | 58.54 | 95 |
| Halifax [Y+H] | Barnsley [Y+H] (7) Bradford [Y+H] (6) Huddersfield [Y+H] (7) Scarborough* [Y+H] (7) | 50.59 | 90 |
| Hereford [WM] | Birmingham [WM] (5) Bristol City [SW] (6) Nottingham Forest [EM] (8) Shrewsbury [WM] (5) | 48.18 | 90 |
| Lincoln [EM] | Bolton [NW] (6) Grimsby [Y+H] (6) Leicester [EM] (9) Luton [SE] (6) Scunthorpe [Y+H] (5) | 67.81 | 95 |
| Oldham [NW] | Everton [NW] (8) Manchester City [NW] (12) Manchester United [NW] (6) | 83.28 | 99 |
| QPR [L] | Crystal Palace [L] (10) | 54.35 | 90 |
| Rochdale [NW] | Bolton [NW] (11) Bradford [Y+H] (7) Oldham [NW] (9) | 64.79 | 99 |
| Rotherham [Y+H] | Sheffield United [Y+H] (15) | 92.37 | 99 |
| Torquay [SW] | Bristol Rovers [SW] (7) Exeter [SW] (8) Plymouth [SW] (11) Swindon [SW] (8) | 92.36 9.00 | 99 99 |
| Walsall [WM] | Birmingham [WM] (14) West Bromwich Albion [WM] (6) | 88.46 | 99 |
| Wolverhampton [WM] | Aston Villa [WM] (8) Derby [EM] (5) West Bromwich Albion [WM] (7) | 60.33 | 90 |

Note: *Only in the League since 1986.

Club regions are indicated in square brackets as follows:

L, London; SE, South East; SW, South West; EA, East Anglia; WM, West Midlands; EM, East Midlands; Y+H, Yorkshire and Humberside; NW, North West; N, North; W, Wales.

Long-term relationships are identified by particular combinations where the adjusted standardised residual (the residual divided by the standard error, in this case the square root of the expected frequencies) is statistically significant at the 95% level (i.e. >1.96).

Table 3: Repeated long-term relationships with selling clubs

| Selling club | Buying clubs with which selling club has made a significant number of repeated contracts (number reported in brackets) | χ^2 | level of significance % |
|------------------------|--|----------|-------------------------|
| Birmingham [WM] | Oxford [SE] (8) Walsall [WM] (14) | 105.41 | 99 |
| Bolton [NW] | Lincoln [EM] (6) Rochdale [NW] (11) Stockport [NW] (5) | 72.29 | 99 |
| Crystal Palace [L] | Plymouth [SW] (6) QPR [L] (10) Southend [SE] (6) | 66.63 | 99 |
| Everton [NW] | Aston Villa [WM] (7) Bolton [NW] (7) Manchester City [NW] (6) Oldham [NW] (8) Tranmere [NW] (6) Wigan [NW] (7) | 74.90 | 90 |
| Exeter [SW] | Plymouth [SW] (7) Torquay [SW] (8) | 37.09 | 90 |
| Leeds [Y+H] | Doncaster [Y+H] (13) | 76.78 | 99 |
| Leicester [EM] | Chesterfield [EM] (8) Lincoln [EM] (9) | 84.54 | 95 |
| Manchester City [NW] | Bury [NW] (10) Chester [NW] (9) Everton [NW] (6) Oldham [NW] (12) Port Vale [WM] (6) | 132.67 | 99 |
| Nottingham Forest [EM] | Chesterfield [EM] (7) Derby [EM] (9) Hereford [WM] (8) Leeds [Y+H] (6) Mansfield [EM] (8) Shrewsbury [WM] (6) | 88.42 | 95 |
| Plymouth [SW] | Blackburn [NW] (5) Exeter [SW] (6) Notts County [EM] (6) Torquay [SW] (11) | 73.88 | 99 |
| Sheffield United [Y+H] | Crewe [NW] (6) Leeds [Y+H] (6) Rotherham [Y+H] (15) Stockport [NW] (7) | 110.94 | 99 |
| Tottenham [L] | Bournemouth [SW] (6) Gillingham [SE] (9) Leyton Orient [L] (6) Portsmouth [SE] (9) Swindon [SW] (6) | 77.53 | 99 |
| Wimbledon [L] | Brentford [L] (10) | 56.64 | 99 |

Note: Club regions indicated as in Table 2; long-term relationships identified as for Table 2

clubs.¹¹ Table 2 shows that, defined in this way, sixteen clubs had significant long-term buying relationships with selling clubs. Table 3 shows that only fourteen clubs had significant long-term selling relationships with buying clubs. It should be noted that the majority of clubs bought and sold more players from one or more clubs than predicted by the independence model. For example, Bolton bought seven players from Everton during the period under consideration, whereas the independence model predicts only two purchases from each of the clubs with which Bolton did in fact conduct business (from the buying side). However, only for the clubs identified in tables 2 and 3 were such deviations statistically significant.¹²

The number of transfers accounted for in table 2 is 358 and there are 347 transfers in table 3. After allowing for double counting, i.e. transfers where the relationship is long-term on both the buying and the selling side, only 7.4 per cent of the total number of transfers are identifiable as being a factor in either a long-term buying or selling relationship. It may be noted that, of the buyers listed in table 2 (except for QPR, Wolverhampton and Oldham), most of the clubs may be viewed as being amongst the lower orders of the league. However, in table 3, the situation is very different, with all the listed clubs having been, at one time or other, in the top division of the league. The suggestion may be that some clubs have conveniently acquired reliable sources of playing talent and, in particular, some lower-division clubs have secured a reliable source of top-division cast-offs. In as much as these relationships are mutually beneficial, this may imply that selling clubs in long-term relationships enjoy having a reliable market for their excess playing staff. Tables 2 and 3 clearly indicate the presence of intra-regional trading between clubs, and this is an issue which is developed below.

Tables 4 to 7 confirm the existence of clearly demarcated local markets. In table 4 intra- and inter-regional local markets are identified by

adjusted standardised residuals larger than 1.96. Such values indicate that significantly more transfers than predicted by the independence model have taken place.¹³ A significant proportion of all transfers are identified as conducted within regions (defined as the official Standard Regions at the time). For example, 34.4 per cent of the players bought by London clubs are bought from other London clubs. Similarly 36.7 per cent of players bought by clubs in the North West are bought from other clubs in the same region. Overall 1,765 transfers were conducted on an intra-regional basis, nearly a quarter (24 per cent) of all transfers. In addition to intra-regional markets, a number of established inter-regional markets are identified in table 4. For example, significantly more players bought by London clubs are bought from clubs in the South East, the South West and East Anglia than any other region (except London itself). Likewise, significantly more players bought by Yorkshire and Humberside clubs are bought from clubs in the East Midlands and the North than any other regions (except Yorkshire and Humberside). More generally, there is a clear geographical pattern in that southern, western, eastern and northern clubs are more likely to contract with other southern, western, eastern and northern clubs respectively. Overall 3,293 (45 per cent) of transfers were conducted on either an intra- or inter-regional local basis and the significance of this distribution is underlined in table 5 which gives 2 statistics for the independence test of buying region by selling region. All the statistics are highly significant implying rejection of the independence hypothesis.¹⁴

Table 6 reports the 2 test statistics for independence and association between buying club and selling region (the relevant table has 960 elements and is too large for inclusion here). Again, the test statistics conclusively reject the independence model. 2 tests were also run independently for every buying club and, as indicated in table 6, the independence hypothesis was rejected for all

Table 4. Intra- and inter- regional markets: cross tabulation of buying club region by selling club region counts, expected values (assuming independence) and adjusted standardised residuals

| | Count Exp Val Adj Res | Buying Club Region | | | | | | | | | |
|--------------|-----------------------------|--------------------|---------------|---------------|----------------|--------------|--------------|-------|---------------------|---------------|-------|
| | | London | South East | South West | East Anglia | West Mids | East Mids | Wales | Yorks & Humbs | North West | North |
| Selling Club | London | 290 | 207 | 141 | 63 | 85 | 74 | 18 | 90 | 82 | 40 |
| | | 124.7 | 119 | 96.6 | 45.3 | 128 | 108.6 | 33.4 | 169.1 | 194.1 | 71.2 |
| | | 17.0* | 9.3* | 5.1* | 2.9* | -4.4 | -3.8 | -2.9 | -7.2 | -9.6 | -4.1 |
| | South | 147 | 133 | 96 | 35 | 74 | 82 | 22 | 74 | 90 | 43 |
| | East | 91.1 | 86.9 | 70.6 | 33.1 | 93.5 | 79.3 | 24.4 | 123.5 | 141.8 | 52 |
| | | 6.6* | 5.6* | 3.4* | .4 | -2.3 | .3 | -5 | -5.1 | -5.1 | -1.4 |
| | South | 50 | 79 | 114 | 26 | 70 | 26 | 24 | 59 | 55 | 19 |
| | West | 59.7 | 57 | 46.3 | 21.7 | 61.3 | 52 | 16 | 81 | 93 | 34.1 |
| | | -1.4 | 3.2* | 10.8* | 1.0 | 1.2 | -3.9 | 2.1* | -2.8 | -4.5 | -2.8 |
| | East | 49 | 46 | 26 | 21 | 33 | 48 | 2 | 33 | 39 | 15 |
| Anglia | 35.4 | 33.7 | 27.4 | 12.8 | 36.3 | 30.8 | 9.5 | 47.9 | 55 | 20.2 | |
| | 2.5* | 2.3* | -0.3 | 2.4* | -0.6 | 3.3* | -2.5 | -2.4 | -2.9 | -1.2 | |
| West | 69 | 79 | 56 | 30 | 191 | 95 | 33 | 127 | 149 | 36 | |
| Mids | 99 | 94.4 | 76.7 | 35.9 | 101.6 | 86.2 | 26.5 | 134.2 | 154 | 56.5 | |
| | -3.4 | -1.8 | -2.6 | -1.1 | 10.1* | 1.1 | 1.4 | -0.7 | -0.5 | -3.0 | |
| East | 56 | 54 | 46 | 41 | 106 | 120 | 19 | 141 | 100 | 43 | |
| Mids | 83.1 | 79.2 | 64.4 | 30.2 | 85.2 | 72.3 | 22.3 | 112.6 | 129.3 | 47.4 | |
| | -3.3 | -3.2 | -2.5 | 2.1* | 2.5* | 6.2* | -0.7 | 3.1* | -3.0 | -0.7 | |
| Wales | 18 | 19 | 28 | 2 | 20 | 12 | 13 | 19 | 20 | 16 | |
| | 19.1 | 18.2 | 14.8 | 6.9 | 19.6 | 16.6 | 5.1 | 25.9 | 29.7 | 10.9 | |
| | -0.3 | 0.2 | 3.6* | -1.9 | 0.1 | -1.2 | 3.6* | -1.5 | -2.0 | 1.6 | |
| Yorks | 54 | 60 | 62 | 32 | 104 | 148 | 30 | 343 | 229 | 110 | |
| & | 134.1 | 127.9 | 103.9 | 48.7 | 137.6 | 116.8 | 36 | 181.8 | 208.7 | 76.5 | |
| Humbs | -8.0 | -6.9 | -4.7 | -2.7 | -3.3 | 3.3* | -1.1 | 14.2* | 1.7 | 4.3* | |
| North | 76 | 79 | 60 | 44 | 142 | 87 | 54 | 173 | 460 | 79 | |
| West | 143.5 | 136.9 | 111.2 | 52.1 | 147.2 | 124.9 | 38.5 | 194.6 | 223.3 | 81.9 | |
| | -6.6 | -5.8 | -5.6 | -1.3 | -0.5 | -3.9 | 2.8* | -1.8 | 19.2* | -0.4 | |
| North | 34 | 48 | 24 | 12 | 40 | 42 | 11 | 84 | 91 | 80 | |
| | 53.3 | 50.9 | 41.3 | 19.4 | 54.7 | 46.4 | 14.3 | 72.3 | 83 | 30.4 | |
| | -2.9 | -0.4 | -2.9 | -1.8 | -2.2 | -0.7 | -0.9 | 1.5 | 1.0 | 9.6* | |

Note: * Adjusted standardised residual ≥ 1.96 indicating positive significance at 95% level or above (significantly more intra-regional trades than predicted by the independence model).

except eight clubs. Table 7 reports the 2 test statistics for independence and association between selling club and buying region. Again the test statistics are conclusive with the independence hypothesis rejected for all except five clubs. Notably both Manchester United and Watford fall into both groups for which the independence hypothesis was not rejected. While the suggestion is that Manchester United is not bound by the

constraints that give other clubs the incentive to transact within local markets, we wonder if the same can really be said for Watford.

Table 8 indicates that the habit of using the loan system as a pre-purchase trial is well established in some clubs which appear to be using the system with a degree of success.¹⁵ Although not all clubs seem to have used the system as effectively as Torquay, overall 19 per cent of loans

could be interpreted as 'trials' in that they result in a permanent transfer. However, this underestimates this particular facet of the loan system

recorded, only eight 'disputant' clubs sharing a long-term relationship were involved (3 per cent of all cases compared with 10 per cent for long-

Table 5: Regional markets

χ^2 test statistics for independence and χ^2 based measures of association between selling club region and buying club region

| <i>Statistic</i> | <i>Value</i> |
|---------------------------|--------------|
| Pearson χ^2 | 1734.41626 |
| Likelihood Ratio χ^2 | 1576.79508 |
| Phi coefficient | 0.4851 |
| Cramer's v | 0.16174 |
| Contingency coefficient | 0.43654 |

Note: All values significant at 99%

as some players will have been loaned with a view to buying but the club has not particularly liked what it has seen and no permanent transfer has resulted. The use of the loan system as a trial system is therefore likely to be even more preva-

term relationship transfers as a percentage of all transfers) and 102 cases involved clubs in regional markets (40 per cent of all tribunal cases compared with 45 per cent for all regional market transfers as a share of all transfers). One possible

Table 6: Buying club markets

χ^2 test statistics for independence and χ^2 based measures of association between buying club and selling club region

| <i>Statistic</i> | <i>Value</i> |
|---------------------------|--------------|
| Pearson χ^2 | 3493.27828 |
| Likelihood Ratio χ^2 | 3307.59971 |
| Phi coefficient | 0.68861 |
| Cramer's v | 0.22954 |
| Contingency coefficient | 0.56715 |

Note: All values significant at 99%. Buying clubs not transacting significantly more in one or more regional markets (all adjusted standardised residuals <1.96 and χ^2 insignificant in independent tests of association for each buying club by selling club region): Aston Villa, Barnsley, Coventry, Leicester, Manchester Utd., Newcastle, Southampton, Watford.

lent than is indicated by table 8. Although there is no way of knowing the true extent to which the loan system is acting as a trial system, our data suggests that some clubs are indeed viewing the loan of a player as a trial and are successfully employing this method of internalising risk.

An investigation of FLAC arbitration decisions and their relationship with long-term relationships and local transfers provided the following information. Of the 255 tribunal decisions

hypothesis is that if clubs enjoy good face to face relations they should be better able to negotiate a transfer deal without referring to third-party arbitration. The data suggest that there is some evidence that clubs in long-term relationships or the same local markets rely on the tribunal system less than otherwise. However, the difference is small.¹⁶

Taken together, the evidence of tables 2 to 8 suggests that the league clubs have taken certain

steps towards combating the intrinsic uncertainty of the transfer market. Some of the methods adopted appear to be more widely established than others. For instance only eleven clubs do not have a preference for conducting their transac-

party arbitration well established but long-term relationships based on repeated contracting have also evolved. Intra- and inter-regional markets are very evident, and a loan trial system that internalises risk is a popular way of dealing with

Table 7: Selling club markets
 χ^2 test statistics for independence and χ^2 based measures of association between selling club and buying club region

| <i>Statistic</i> | <i>Value</i> |
|---------------------------|--------------|
| Pearson χ^2 | 3092.16881 |
| Likelihood Ratio χ^2 | 2923.81871 |
| Phi coefficient | 0.64787 |
| Cramer's v | 0.21596 |
| Contingency coefficient | 0.54373 |

Note: All values significant at 99%. Selling clubs not transacting significantly more in one or more regional markets (all adjusted standardised residuals <1.96 and χ^2 insignificant in independent tests of association for each selling club by buying club region): Aldershot*, Darlington, Mansfield, Manchester Utd., Watford.

(* club was not a member of the league for the full 'term' of the study).

tions in one or more local markets, whilst only sixteen clubs on the buying side and fourteen clubs on the selling side are involved in repeated contracting with other clubs. While the FLAC system of arbitration is well established and represents an institutional arrangement that has formally evolved to deal with the peculiarities of the market in question, the loan system and the practice of transacting in established inter- and intra-regional markets or on the basis of long-term relationships, can also be explained as rational responses to the particular features of a market that is characterised by uncertainty. Table 9 provides a season by season breakdown of transfers according to category, indicating that the identified relationships existed over the whole time period studied.¹⁷

5. Concluding Remarks

The evidence presented in this paper is that clubs in the English Football League have historically adapted to the possibility of market failures in the transfer market for players. Not only is third

uncertainty regarding player quality. Our evidence is consistent with an institutional interpretation based on the transactions cost model as a rationale for arrangements which are otherwise difficult to explain. However, regardless of how well the transactions-cost rationale explains the past evolution, and current state of, transfer-market arrangements in the English Football League system, recent developments in the sport suggest that further adaptation is inevitable.

In December 1995, the European Court of Justice (ECJ) ruling on the case of the Belgian footballer Jean-Marc Bosman called into question the whole system of transfers and the right of football clubs to expect or demand a fee for a player on the latter's move to a new club. While initially interpreted as applying to the movement of European nationals between clubs located in different member states of the European Union (EU), at the end of their contracts, it soon became apparent that the ruling had more general implications for domestic transfers between clubs in the same national league.¹⁸ Thus, and despite the

Table 8. Loan trial markets

| <i>Club</i> | <i>no. of successful trials</i> | <i>percentage of perm. transfers</i> | <i>Club</i> | <i>no. of successful trials</i> | <i>percentage of perm. transfers</i> |
|-------------|---------------------------------|--------------------------------------|-------------|---------------------------------|--------------------------------------|
|-------------|---------------------------------|--------------------------------------|-------------|---------------------------------|--------------------------------------|

Buying clubs acquiring players as a result of a trial significantly more often than predicted by the independence model

| | | | | | |
|--------------|----|----|------------|----|----|
| Brentford | 12 | 20 | Plymouth | 14 | 20 |
| Cardiff | 9 | 24 | Rochdale | 12 | 26 |
| Carlisle | 12 | 20 | Shrewsbury | 14 | 30 |
| Chesterfield | 14 | 25 | Torquay | 15 | 26 |
| Darlington | 10 | 24 | | | |

Buying clubs acquiring players as a result of a trial significantly less often than predicted by the independence model

| | | | | | |
|-----------|---|---|-------------------|---|---|
| Chelsea | 0 | 0 | Manchester United | 0 | 0 |
| Leicester | 3 | 4 | Aston Villa | 0 | 0 |
| Luton | 1 | 2 | Watford | 1 | 1 |

Selling clubs selling players following a trial significantly more often than predicted by the independence model

| | | | | | |
|-------------------|----|----|-------------------|----|----|
| Everton | 17 | 19 | Sheffield United | 16 | 21 |
| Nottingham Forest | 17 | 21 | Tottenham Hotspur | 12 | 20 |
| Crystal Palace | 14 | 21 | | | |

Selling clubs selling players following a trial significantly less often than predicted by the independence model

| | | |
|---------|---|---|
| Watford | 1 | 1 |
|---------|---|---|

χ^2 test statistics for independence and measure of association between club and likelihood of transfer being preceded by a trial

| | <i>Statistic</i> | <i>Value</i> | <i>Significance</i> |
|-----------------------|---------------------------|--------------|---------------------|
| <i>Buying clubs:</i> | Likelihood ratio χ^2 | 226.513 | 99% |
| | Pearson χ^2 | 211.18 | 99% |
| | Contingency coefficient | 0.2047 | 99% |
| <i>Selling clubs:</i> | Likelihood ratio χ^2 | 124.7 | 95% |
| | Pearson χ^2 | 111.704 | 85% |
| | Contingency coefficient | 0.15225 | 85% |

Note: The total number of transfers preceded by a loan period is 537 (13.6% of all permanent transfers). 19% of all temporary (loan trial) transfers resulted in a permanent transfer.

fact that the problems involved in the Bosman case would seem to be circumvented by the 'tried and tested' procedures formally adopted in the English league system (especially in the form of FLAC) it, along with footballing authorities throughout the EU, was required to revise the transfer system. Following lengthy discussions, involving clubs and the Professional Footballers Association, both the FA Premier League and the Football League agreed that, from June 1998 onwards, 'domestic' players who are 'out of con-

(given current transfer fees) cost. This development may have arisen from ambitious clubs taking advantage of the Bosman ruling as offering a quick-fix solution, enabling the acquisition of ready made 'stars' of proven quality, and/or taking advantage of the crowd appeal associated with the novelty of foreign 'names'. However, to the extent that this may be a long-term process, the trend to buy foreign could be at the expense of transfers between English Football League clubs, threatening to destabilise the market for home

Table 9. Long-term relationships, local markets and loan trials by season

| Season | % transfers in a long-term relationship | % transfers in an intra-regional market | % transfers in an established inter-regional market | % of permanent transfers following a loan |
|---------|---|---|---|---|
| 1977-78 | 6.1 | 22.2 | 18.2 | 4.9 |
| 1978-79 | 5.6 | 24.7 | 17.3 | 4.1 |
| 1979-80 | 5.7 | 23.7 | 19.0 | 2.5 |
| 1980-81 | 6.2 | 25.7 | 16.8 | 4.4 |
| 1981-82 | 7.3 | 26.8 | 23.2 | 3.2 |
| 1982-83 | 9.0 | 27.1 | 13.4 | 15.3 |
| 1983-84 | 7.4 | 25.3 | 24.0 | 14.0 |
| 1984-85 | 5.9 | 24.2 | 21.9 | 12.5 |
| 1985-86 | 7.9 | 25.3 | 23.0 | 12.9 |
| 1986-87 | 5.8 | 24.1 | 22.7 | 12.9 |
| 1987-88 | 7.2 | 25.8 | 20.7 | 14.0 |
| 1988-89 | 5.0 | 21.5 | 21.9 | 10.1 |
| 1989-90 | 5.2 | 21.7 | 23.1 | 11.9 |
| 1990-91 | 8.0 | 23.0 | 19.9 | 16.2 |
| 1991-92 | 7.3 | 22.6 | 18.9 | 14.9 |
| 1992-93 | 7.6 | 25.7 | 25.0 | 21.2 |
| 1993-94 | 7.0 | 19.9 | 20.1 | 11.3 |

tract' and aged 24 or over would be 'literally' free to move to any club of their choice anywhere¹⁹ For players up to the age of 24, and those still under contract, the prevailing system of transfer and compensation (involving FLAC arbitration) technically remained to cover movement between clubs within the English Football League.

One immediate consequence of the Bosman ruling has been the accelerated influx of foreign players from other EU countries, at relatively low

grown players to the particular detriment of smaller clubs which rely on transfer sales as a crucial revenue source. This has clear implications for inter-club relationships and particularly threatens to undermine the youth development system already endangered by the moves towards freedom of contract. In response, the new contract arrangements for under-24 year olds in England have been designed partly to allay fears concerning the reduced incentive to clubs to invest in the training and development of young