Scoring a Big Contract?: Examination of Player Wages in MLS

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Abstract 2012-034 Thursday, May 24, 2012 11:15 AM 20-minute oral presentation (including questions) (West)

This paper analyzes the wage determination of professional soccer players in Major League Soccer (MLS). Much of the research in the area of soccer wages has been focused on European soccer leagues, with limited but valuable examination of the American professional league. Despite the important contributions of these previous works, further research is needed to more fully understand the wage determinants of soccer wages in MLS. To help address this void, we propose a replication and expansion of the work by Kuethe and Motamed (2010). Our research has three main objectives: (1) to add to the existing literature by contributing further analysis of American soccer wages; (2) to expand on previous scholarship of American soccer wages by including additional measures of performance, such as defensive and goalkeeping performance metrics; and (3) to better understand the impact of the Designated Player Rule on MLS wages, through the inclusion of data from 2007 through 2011.

Evidence of the intersection of business and sport performance can be found in the increasing literature regarding wages in professional soccer (Feess, Frick, & Mühleheusser, 2004; Frick, 2010; Lehmann & Schulze, 2008; Lucifora & Simmons, 2003). A number of studies have examined the impact of wage or salary dispersion on team production using data from professional sports, including soccer (Franck & Nuesch, 2007). Frick (2007) analyzed the labor market for European leagues, characterized by short duration playing careers, three year contracts on average, increased player performance in the last year of contracts, and pay reflecting a player's marginal product. Additional research has focused on the wages of MLS superstar players, defined by designated player status and all-star game appearances (Kuethe & Motamed, 2010). Other scholars (Brandes et al., 2007) examined the superstar effect of national players and “local heroes” in the German Bundesliga.

MLS’s unique structure possibly affects player wages unlike other professional soccer leagues. Specifically, the league operates as a single corporate entity, imposes a salary cap for player salaries, and does not follow the promotion and relegation system popular in European leagues. The Designated Player Rule was intended to add to the “star power” of MLS rosters by allocating a limited number of roster places for players whose salary would be largely exempted from salary cap consideration (Lawson, Sheehan, & Stephenson, 2008), making MLS a unique laboratory for research with clear competitive balance implications.

Data collection will include salaries from MLS players from 2007 through 2011, the years in which the Designated Player Rule has been in effect. This information is available through the Major League Soccer Players Union website. Further, statistical data for the corresponding years will be retrieved from online databases, including the Official MLS Website (mlssoccer.com). The methodology will begin with the human capital earnings equation for soccer players, developed by Lucifora and Simmons (2003):

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\ln W_{(i)} = \alpha_0 + \alpha_1 \cdot \text{EXP}_{(i)} + \alpha_2 \cdot \text{PERF}_{(i)} + \alpha_3 \cdot \text{REP}_{(i)} + \alpha_4 \cdot \text{TEAM}_{(i)} + \epsilon_{(i)}
\]

where \( \ln W_{(i)} \) represents the natural log of the earnings for the \( i \)th player with \( \text{EXP} \) experience attributes, \( \text{PERF} \) performance attributes, and \( \text{REP} \) reputation or superstar attributes. The player’s wage is also subject to team level attributes, \( \text{TEAM} \). Experience may include measures like number of seasons of professional experience, number of seasons of MLS experience, number of games played last season, number career games played, number of international games played, and number of career international games played. Performance will include dummy variables for the player’s position per year, as well as metrics such as goals, shots, assists, minutes played, saves, goals allowed and a defensive metric for both the previous year and for the player’s career. Reputation will include measures like All-Star game appearances and a dummy variable if the player was named team captain. We will estimate the regression equation using ordinary least squares, a Random-Effects model, as well as a Median Regression Model (Frick, 2010). A quantile regression analysis (.50, .75, .90, and .95) will then be used to better
identify those star players constrained by the salary cap and those exempted through the Designated Player Rule (Frick, 2010; Kuethe & Motamed, 2010).