

Introduction

In this paper, I test the hypothesis that product market competition and labor market discrimination share an inverse relationship. I analyze European football data from 2004-2021 and consider this relationship from the perspective of region-based discrimination. I use increases in league-collective broadcasting deal values as a proxy for increases in competition. I use the transfer value of players as a proxy for wage. Using the lagged value of broadcasting deals as an instrument, I establish a causal, inverse link between competition and discrimination. As the value of broadcasting deal values increase, the difference in the average transfer value between players of different regions decreases.

Background

Broadcasting deals can be either collectively negotiated with a media provider with all teams within a league, or individually negotiated with each team and a media provider. These two methods of agreeing to broadcasting deals are mutually exclusive. I only consider the values of collective broadcasting deals, as there is a lack of data on individual agreements. I note that all leagues in the sample I consider eventually transition to a model of collective agreement.

Players either have a contract with a club (employed) or are free agents (unemployed). To secure the services of a free agent, a club must only agree to a wage with the player as in a traditional labor market. To secure the services of a player that is currently employed at a different club, a club must agree to wages with the player and provide a payment to the club that currently employs the player, which is termed a transfer fee. The transfer value of a player is a metric that indicates how much a player is worth in the latter context, regardless of if they are a free agent or not.

Data

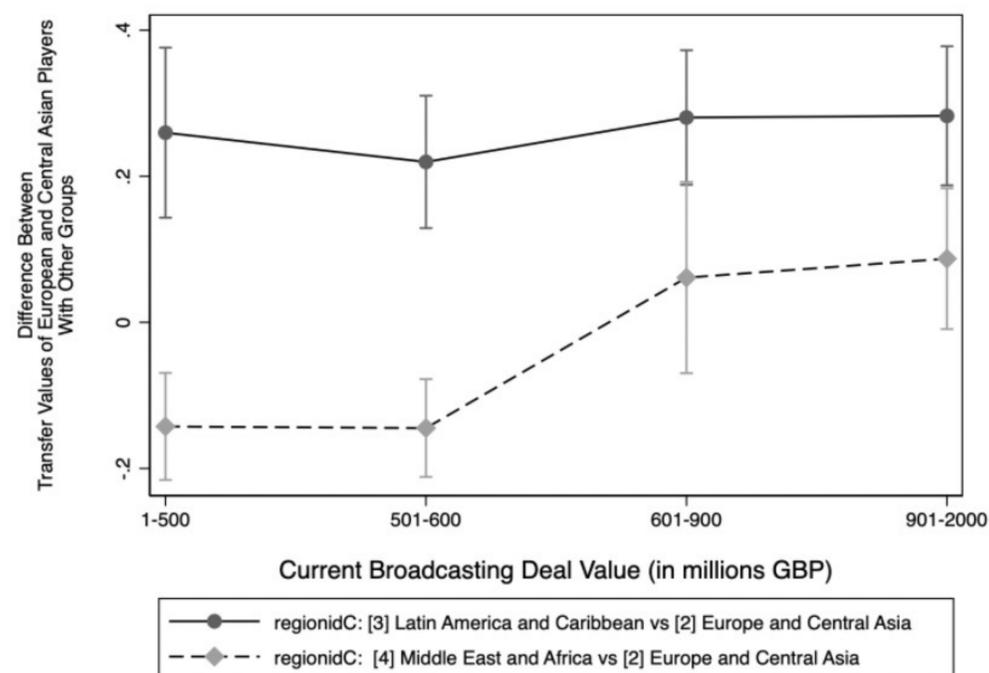
I scrape 58,918 unique player-club-season observations from Transfermarkt, and these observations consist of players who were on the roster for the clubs in the sample for a particular season between the 2004-2005 and 2020-2021 season. Within the five leagues in the sample, I collect observations for 195 individual clubs and 17,033 individual players. Uniqueness in this sense refers to a specific player-club-year combination. I use machine-learning software to classify the race of each player.

Results

Table 5. Marginal Effects of Collective Broadcasting Deal Value on Differences in Player Transfer Value by Region

	(1)	(2)	(3)	(4)
Difference in Average Transfer Value	Current Broadcasting Values - League FE	Lagged Broadcasting Values - League FE	Current Broadcasting Values - Player FE	Lagged Broadcasting Values - Player FE
Latin American and Caribbean vs Base @ 1-500 million	0.260*** (0.0594)	0.256*** (0.0557)	.260***	.256***
Latin American and Caribbean vs Base @ 501-600 million	0.220*** (0.0463)	0.239*** (0.0477)	.291***	.298***
Latin American and Caribbean vs Base @ 601-900 million	0.280*** (0.0470)	0.323*** (0.0494)	.189***	.216***
Latin American and Caribbean vs Base @ 901-2000 million	0.283*** (0.0486)	0.254*** (0.0540)	.173***	.15***
Middle East and Africa vs Base @ 1-500 million	-0.143*** (0.0374)	-0.165*** (0.0380)	-.143***	-.165***
Middle East and Africa vs Base @ 501-600 million	-0.145*** (0.0342)	-0.125*** (0.0341)	-.123***	-.084***
Middle East and Africa vs Base @ 601-900 million	0.0613 (0.0668)	0.0354 (0.0684)	-.032	.049
Middle East and Africa vs Base @ 901-2000 million	0.0872* (0.0492)	0.122** (0.0529)	-.009	.008

Figure 4. Marginal Effects of Current Collective Broadcasting Deal Value on Differences in Player Transfer Value by Region - League FE Model



Baseline Empirical Model

$$Y_{ilt} = \beta_0 + \gamma_0 B_{it} + \gamma_1 R_{it} + \gamma_2 G_{it} + \gamma_3 (B_{it} * G_{it}) + \beta_1 \vec{X}_{ilt} + \theta_t + \mu_i + \epsilon_{ilt}$$

1. Y_{ilt} := the natural log of player i transfer value at time t in league l
2. B_{it} := Broadcasting revenue for season t
3. G_{it} := the geographic region player i is from in league l
4. R_{it} := race of player i in league l
5. \vec{X}_{ilt} := control vector
6. θ_t := time fixed effects
7. μ_i := league fixed effects

Conclusions

The results of this paper support Becker's theory, suggesting a causal link between increased competition and lower labor market discrimination in football. I find that the average transfer value of Middle Eastern and African players tend towards convergence with that of Latin American and Caribbean players and European and Central Asian players as collective broadcasting deal values increase. The player fixed effects models indicate that the average value of Latin American and Caribbean players also converges with that of European and Central Asian players. These results are derived from Table 5, which displays a decrease in the difference in average transfer values for these specifications. I do note that the league fixed effect models show that the values of Latin American and Caribbean players do not tend towards convergence with those of European and Central Asian players. However, the player fixed effects models provide the greatest control over possible confounding variables. As such, I favor the results of these models.

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