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An empirical analysis of financial fair-play: The case of Russian Premier League

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Abstract

The real impact of financial fair play (FFP) came along with the break-even rule which prevents clubs from over-spending through a variety of sanctions. As UEFA limited clubs' expenses with their incomes, the transfer market took a hit. This paper demonstrates the impact of FFP on Russian Premier League teams' transfer activity, examines how transfers' demography and career profiles changed and investigates the changes in competitive balance after break-even. A regression discontinuity design is conducted in order to estimate the policy impact. The empirical results suggest that Russian clubs have been severely affected by break-even in terms of transfer expenditure and balance and started to transfer more U21 players and players from lesser leagues of the world. Furthermore, competitive balance in the Russian Premier League deteriorated in favor of the giants in the league as a result of break-even.

Keywords: financial fair-play, break-even rule, transfer market, regression discontinuity design, Russian Premier League.
JEL classification: Z2, Z28.

1. Introduction

Financial fair play (FFP) has been a game changer for European football. The regulations imposed by UEFA have affected all the stakeholders in the industry. UEFA (2015) defines the purpose of financial fair play as "improving the overall health of European club football". Perhaps the most compelling aspect of FFP has been the break-even condition which limits clubs' expenditure so that it is commensurate with their revenue. So far numerous clubs have been fined by UEFA for failing to meet the FFP regulations. FK Vardar (MKD), PFC Levski Sofia (BUL) and Sporting Club de Portugal (POR) are the latest three clubs to have been fined by UEFA (UEFA, 2018). Furthermore, Manchester City are about

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to be banned from inter-European competitions due to the fraud they committed in their accounts in order to be able to comply with break-even. Disciplinary actions taken against a club vary depending on the offenses which are introduced in Section 2.1.

In the world of professional sports, it is not uncommon for the governing body to regulate the financial aspects of the league and teams. As Peeters and Szymanski (2014) demonstrate, strict regulations are present in North American professional leagues in terms of roster limits, salary caps, draft rules and gate revenue sharing. These regulations make sure that teams do not go bankrupt and enhance competitive balance.

Even though there have been debates about the compatibility of FFP regulations with EU laws (Flanagan, 2013), the regulations are implemented and since European football clubs' competitive power mostly depends on their spending, the most decisive element of the FFP has been break-even. In the 2017/2018 season, some of the non-Big 5 major leagues such as Portugal, Russia and Turkey had a wage-to-revenue ratio higher than 70% which is the industry marker for club financial health. Whereas the average wage-to-revenue ratio for the Big 5 was 60% in the 2017/2018 season (Deloitte, 2019). Non-Big 5 clubs' "unhealthy" financial structure causes difficulties in complying with FFP regulations.

In the 2017/2018 season, the Russian Premier League generated the 6th highest revenue in European football with 813 million euros (Deloitte, 2019). Although the Russian Premier League is resourceful, Russian teams are the 2nd most sanctioned, after the Turkish Super League teams, due to failing to meet the FFP requirements. Four Russian teams have been punished as of 2019; therefore they are being closely monitored by UEFA.

The main objectives of this paper are: to empirically illustrate the effects of break-even on Russian Premier League clubs' transfer activity, to examine how it has affected the demographics and career profiles of transferred players and to reveal whether competitive balance has been affected by break-even or not. In order to reach the objectives, a period of 12 seasons is investigated between the 07/08 and 18/19 seasons. A regression discontinuity (RD) design is conducted to illustrate the effects of break-even on transfer activity. The first sanctions were applied in the 2013/2014 season, for failing to meet the break-even requirements, therefore 2013 is the point of treatment. To estimate the impact of break-even on transfer activity, transfer expenditure and transfer balance are used as outcome variables. Positive and negative impacts on transfer balance and transfer expenditure are expected respectively. Furthermore, two probable spillover effects are investigated. Considering the limit on expenditure, an increase in the number of free and temporary (loans) transfers is an anticipated spillover effect.

Russian teams have over 70% wage-to-revenue ratio, therefore it would be reasonable to assume that Russian clubs will try reducing their wage bills to comply with break-even. However, since it won't be possible to revise existing contracts, players who will accept lower wages will be transferred. Unfortunately, wage data regarding Russian teams is not available, therefore the impact on wages is estimated using a proxy variable which is introduced in the Materials and Methods section.

Finally, the impact of break-even on competitive balance is investigated using some of the measures from the literature which are presented in Section 3.

This paper proceeds as follows: the next section provides the theoretical background and additional information about the FFP regulations. Section 3 introduces the dataset, the model and the methodology, and Section 4 presents the results. Section 5 and 6 discuss the findings presented in the Results section and conclude the study.

2. Theory

Financial fair play regulations have been an area of interest for both policy makers and academics over the past years. So far, literature regarding FFP has been focusing on its influence on competitive balance. Vöpel (2011) argues that FFP regulations will only improve the competitive balance between the leading clubs of Europe rather than create a convergence chance for the poorer clubs. Drut and Raballand (2012) have an optimistic perspective and they believe FFP regulations can actually restore competitive balance, if enforced fairly. While the discussion regarding FFP continued, the renowned lawyer Jean-Louis Dupont, famous due to the Bosman case in 1995, issued a press release stating that he had filed a complaint regarding the compatibility of FFP regulations with EU laws in the name of Daniel Striani, a player agent. Dupont argued that FFP violated EU laws and restricted clubs' investments as well as causing the fossilization of the market structure (Dupont, 2013). Interestingly, Dupont's client was not a club but a player agent who is probably experiencing a significant reduction in his income due to the decreasing number of transfers, transfer fees and player salaries. In the light of the previous discussions, Peeters and Szymanski (2014) argue that the compulsory increase in clubs' profitability would mean that a higher proportion of the rent generated by football will be acquired by clubs. Their model's results coincide with Vöpel's (2011) arguments and they expect that the competitive superiority of the top teams will be enhanced. Madden (2015) provides a different approach and discusses how the FFP regulations have impacted clubs' utility and profit objectives.

The transfer market in European football has been subject to several studies, especially after the Bosman ruling came into practice in 1995. Simmons (1997) investigates the impact of the Bosman ruling on the English transfer market whereas Feess and Mühlheußer (2002) theoretically discuss the transfer regulations and their effects in pre and post Bosman periods. Frick (2007) illustrates how transfer fees grew over the years and how the number of paid transfers decreased after the Bosman case. Mourao (2016) provides an in-depth analysis regarding the clubs' efficiency in transfers and tries to determine the most efficient teams in transferring players.

Despite being one of the major leagues in Europe, literature on the Russian Premier League is not as comprehensive as the literature on the Big 5 leagues. In recent years, few important studies have been conducted regarding the Russian Premier League. Charyev (2016) examines the effects of foreign players' regulations on competitive balance, domestic players and attendance between 2000 and 2010. Coates et al. (2017) estimate the brand strength of Russian football clubs and try to identify the determinants. Zelenkov and Solntsev (2017), on the other hand, investigate the efficiency of Russian Premier League clubs using Data Envelopment Analysis (DEA) between 2012 and 2016.

As mentioned earlier, a regression discontinuity design (RD design) is conducted in order to estimate the policy impact. RD design has been a popular tool in treatment effect estimation in the economics literature thanks to Thistlethwaite and Campbell's (1960) pioneering study. In the case of sports economics, several studies have been conducted using RD design. Especially the draft system in North American sports leagues creates perfect datasets for conducting RD designs as in the case of Keefer (2014). Regarding European football, few studies have been published using RD design. Radoman (2015) investigates the impact of the Bosman ruling on player productivity in the English Premier League and Hon and Parinduri (2016) illustrate the influence of the three-point rule on the number of scored and conceded goals in the German Bundesliga. Özaydın and Aksu (2019) investigate the effects of the changes in foreign player regulations on player productivity in the Turkish Super League.

Although there are studies about the impact of the Bosman ruling in the literature, the effects of regulatory changes on the transfer market is incomprehensive, and there are no empirical studies regarding the effects of FFP. This study portrays the impact of FFP regulations on the Russian Premier League teams.

2.1. FFP and break-even regulation

UEFA releases a licensing and fair play regulations document each year which is publicly available. The information presented in this section and more can be found in "UEFA's financial fair play: All you need to know" webpage and UEFA Club Licensing and Fair Play Regulations document's 2018 edition.

Even though FFP regulations were approved in 2010 and the first evaluations were done in 2011, the assessment for break-even began in 2013. Break-even requires clubs to balance income and expenses in order to prevent the accumulation of unsustainable debts. Clubs are monitored every season and their accounts for the past three seasons are investigated. As of 2018/2019, clubs are allowed to incur losses for the investigation periods. Table 1 presents the monitoring periods and acceptable losses for the seasons between 2013/2014 and 2018/2019.

Clubs which fail to meet break-even requirements face a number of sanctions depending on their accounts and financial status. Probable punishments clubs face are as follows (UEFA, 2015):

a) Warning;
b) Reprimand;
c) Fine;
d) Deduction of points;
e) Withholding of revenues from a UEFA competition;
f) Prohibition on registering new players in UEFA competitions;
g) Restriction on the number of players that a club may register for participation in UEFA competitions, including a financial limit on the overall aggregate cost of the employee benefits expenses of players registered on the A-list for the purposes of UEFA club competitions;
h) Disqualification from competitions in progress and/or exclusion from future competitions;
i) Withdrawal of a title or award.

Table 1
Financial fair play criteria.

Season	Investigation seasons			Acceptable loss, million euros
2013/2014	–	2011/2012	2012/2013	45
2014/2015	2011/2012	2012/2013	2013/2014	45
2015/2016	2012/2013	2013/2014	2014/2015	30
2016/2017	2013/2014	2014/2015	2015/2016	30
2017/2018	2014/2015	2015/2016	2016/2017	30
2018/2019	2015/2016	2016/2017	2018/2019	< 30

Source: UEFA.

Table 2
Clubs sanctioned by UEFA.

Team	Country
Season 2014/2015	
Bursaspor	Turkey
CFR 1907 Cluj	Romania
Ekranas	Lithuania
FC Astra	Romania
FC Dnipro	Ukraine
FK Crvena Zvezda	Serbia
Season 2015/2016	
ASA 2013 Targu Mureş	Romania
Beşiktaş JK	Turkey
Bursaspor	Turkey
CFR 1907 Cluj	Romania
CSKA Sofia	Bulgaria
FC Astra	Romania
FC Botoşani	Romania
FC Dnipro	Ukraine
FC Dynamo Moscow	Russia
FC Honka	Finland
FC Krasnodar	Russia
FC Lokomotiv Moskva	Russia
FC Rostov	Russia
Hapoel Tel-Aviv	Israel
Inter Baku	Azerbaijan
Karabükspor	Turkey
Panathinaikos	Greece
Ruch Chorzow	Poland
SC Braga	Portugal
Sporting Club de Portugal	Portugal

Team	Country
Season 2016/2017	
ASA 2013 Targu Mureş	Romania
FC Astana	Kazakhstan
FC Dnipro	Ukraine
Fenerbahçe	Turkey
Galatasaray AŞ	Turkey
GNK Dinamo Zagreb	Croatia
Inter Baku	Azerbaijan
Trabzonspor AŞ	Turkey
Season 2017/2018	
FC Porto	Portugal
FK Parizan	Serbia
Karabükspor	Turkey
FC Irthys	Kazakhstan
FC Sion	Switzerland
FK Vojvodina	Serbia
Galatasaray AŞ	Turkey
KF Tirana	Albania
Maccabi Tel-Aviv	Israel
Panathinaikos	Greece
Season 2018/2019	
FK Vardar	Macedonia
Levski Sofia	Bulgaria
Sporting Club de Portugal	Portugal

Note: Detailed information regarding the sanctions can be found at: https://www.uefa.com/insideuefa/protecting-the-game/club-financial-controlling-body/
Source: UEFA.

In addition to the listed measures, UEFA Club Financial Control Body (CFCB) has offered settlement agreements in some cases and given clubs additional time as well as providing roadmaps for resolving financial issues.

So far, a number of clubs have been fined due to their failure to observe FFP regulations which are presented in Table 2.

Turkish (6), Russian (4), Romanian (3) and Portuguese clubs (3) are the most troublesome clubs when it comes to complying with FFP regulations. The most sanctioned two leagues, Turkey and Russia, are also the highest revenue generating leagues after the Big 5. Despite their high incomes, clubs from Turkey and Russia are failing to meet the FFP requirements.

3. Materials and methods

Data regarding Russian clubs' transfer activity is gathered for the 12-season period between 07/08 and 18/19 from the German website Transfermarkt.com which has no credibility issues and have been used in academic studies numerous times. However, it should be noted that some transfers are completed with undisclosed fees and therefore the data regarding such transfers is unavailable. Out of the 2083 transfers, in the investigated period, 240 of them are transfers with undisclosed fees which were left out of the dataset.

The impact of the treatment on transfer activity is estimated on four different outcome variables which are: *T.Exp*, *T.Bal*, *NofFree* and *NofLoans*. These are: transfer expenditure, transfer balance, number of free transfers and number of loaned players for each team. Also, to investigate the impact of break-even on wages, a fifth outcome variable is used which is *MjrArr*—a dummy variable taking the value 1 if the transferred player is an arrival from a major league other than Russia and 0 otherwise. Arrival from a major league is used as a proxy for wages with the underlying assumption that players from major leagues ask for higher wages. The impact on *MjrArr* will also illustrate the change in the career profiles of the transferred players. Due to the Russian Premier League's geographical location and position in European football, players are likely to ask for higher wages when being transferred from the Big 5 or from some other major Western European and South American leagues. Therefore these leagues are included among major league arrivals. Finally, some leagues in the Middle East and Far East pay high salaries in order to attract players, therefore players arriving from these leagues are also included in major league arrivals. The leagues included in major leagues are: Argentina, Belgium, Brazil, China, England, France, Germany, Italy, Japan, Netherlands, Portugal, Qatar, Saudi Arabia, Scotland, Spain and Turkey.

Furthermore, the market value of the transfers is used as a covariate in the estimation of the break-even effects on outcome variables. There might be variations in the aggregate transfer expenditures for each team, due to the number of players transferred or due to the quality of the transferred players, from season to season. Using the market value of the transferred players as a covariate enables to control this variation and furthermore since market values are adjusted to inflation, it enables to control inflation in the transfer fees.

Finally, the probable effects of break-even on competitive balance are investigated. Out of numerous methods in the literature for measuring the competitive balance, the following three have been chosen due to their usability and popularity:[1]

1) Coefficient of variation of points;
2) Range of winning percentage;
3) Gini coefficient of points.

[1] Goossens (2006) provides a detailed list of the methods for measuring competitive balance.

Table 3
Summary statistics.

	Obs		Mean		Std Dev		Min		Max	
	Pre	*Post*	*Pre*	*Post*	*Pre*	*Post*	*Pre*	*Post*	*Pre*	*Post*
T.Exp	96	96	11.16	8.92	15.04	15.58	0	0	88.76	94.5
T.Bal	96	96	–5.86	0.23	14.2	18.47	–87.01	–78.78	27.60	98.45
NofFree	96	96	5.21	6.25	4.58	5.04	0	0	22	22
NofLoans	96	96	2.27	2.39	2.71	2.25	0	0	12	10
MjrArr	922	921	0.18	0.16	0.38	0.44	0	0	1	1
MV_{agg}	96	96	18.70	24.24	14.11	18.24	0	3.2	67.05	95
MV_{ind}	922	921	2.12	1.73	2.76	2.49	0	0	37	20

Source: Author's calculations.

Table 4
Normality test results

	Obs	W	V	Z	*p*-value
T.Exp	192	0.69	44.98	8.74	0.00
T.Bal	192	0.73	39.05	8.42	0.00
NofFree	192	0.92	11.39	5.59	0.00
NofLoans	192	0.90	13.74	6.01	0.00
MjrArr	1843	0.99	5.22	4.19	0.00

Source: Author's calculations.

The summary statistics for the dataset are provided in Table 3. It should be noted that there are two market value variables, MV_{agg} and MV_{ind} which are the aggregate market value of a team's transfers and the individual market value of each transfer. Aggregate market value is used as a covariate for transfer expenditure, transfer balance, number of free transfers and number of loans whereas individual market value is used as a covariate for major league arrivals.

Since there are no systematic differences between the observations below and above the cutoff point, conducting a RD design is appropriate to estimate the treatment effect and furthermore since the treatment is discontinuous at the cutoff, a sharp RD design is conducted (Stock and Watson, 2015). To decide whether to use parametric or non-parametric methods, normality tests are conducted. Table 4 presents the results of the Shapiro–Wilk tests for the outcome variables.

As test results suggest, data is not normally distributed, therefore non-parametric methods are used in the estimation of the policy impact. Following Imbens and Lemieux (2008), the average treatment effect can be estimated through local linear regression with covariates able to be estimated using the following equations:

- the model below the cutoff is:

$$\min_{\alpha,\beta,\delta} \sum_{i:c-h<X_i<c} (Y_i - \alpha_b - \beta_b(X_i - c) - \delta_i Z_i)^2; \quad (1)$$

- the model above the cutoff is:

$$\min_{\alpha,\beta,\delta} \sum_{i:c-h<X_i<c+h} (Y_i - \alpha_a - \beta_a(X_i - c) - \delta_i Z_i)^2; \quad (2)$$

- therefore, the average treatment effect is:

$$\widehat{\mu_b(c)} = \widehat{\alpha_b} + \widehat{\beta_b}(c - c) = \widehat{\alpha_b}; \tag{3}$$

$$\widehat{\mu_a(c)} = \widehat{\alpha_a} + \widehat{\beta_a}(c - c) = \widehat{\alpha_a}; \tag{4}$$

$$\hat{\tau}_{SRD} = \widehat{\alpha_a} + \widehat{a_b}, \tag{5}$$

where Y_i is the outcome variable, X_i is the running variable, Z_i is a vector of covariates, c is the cutoff point, h is the bandwidth and $\hat{\tau}_{SRD}$ is average treatment effect. Equations 1 and 2 are linear regressions to the observations within a distance h on below and above the cutoff point. The optimal bandwidths are obtained following Imbens and Kalyanaraman (2012).

Following the same methodology, the effects of break-even can be estimated using the following local linear regression models on five different outcome variables:

$$\min_{\alpha,\beta,\delta} \sum_{i:c-h,c<X_i<c,c+h} (T.Exp_i - \alpha_{a,b} - \beta_{a,b}(Year_i - c) - \delta_i MV_i)^2; \tag{6}$$

$$\min_{\alpha,\beta,\delta} \sum_{i:c-h,c<X_i<c,c+h} (T.Bal_i - \alpha_{a,b} - \beta_{a,b}(Year_i - c) - \delta_i MV_i)^2; \tag{7}$$

$$\min_{\alpha,\beta,\delta} \sum_{i:c-h,c<X_i<c,c+h} (NofFree_i - \alpha_{a,b} - \beta_{a,b}(Year_i - c) - \delta_i MV_i)^2; \tag{8}$$

$$\min_{\alpha,\beta,\delta} \sum_{i:c-h,c<X_i<c,c+h} (NofLoans_i - \alpha_{a,b} - \beta_{a,b}(Year_i - c) - \delta_i MV_i)^2; \tag{9}$$

$$\min_{\alpha,\beta,\delta} \sum_{i:c-h,c<X_i<c,c+h} (MjrArr_i - \alpha_{a,b} - \beta_{a,b}(Year_i - c) - \delta_i MV_i)^2. \tag{10}$$

The policy impact is estimated for transfer expenditure, transfer balance, number of free players, number of loaned players and major league arrivals using market value as a covariate. The cutoff point is 2013, where the clubs were sanctioned for the first time due to failing to meet break-even requirements.

3.1. Checking the validity of the RD design

The external validity of an RD design can be tested by:

1) Checking the continuity at the cutoff,

2) Testing the continuity of the outcome variable at another cutoff,

3) Checking the continuity of the assignment variable's density at the cutoff (Lee and Lemieux, 2010).

As presented in Table 3, there are two different market value covariates which are tested separately for discontinuity at the cutoff. Table 5 presents the results of the discontinuity checks of MV_{agg} and MV_{ind}.

As the results in Table 5 suggests, the treatment effect at the cutoff is not significant for both MV_{agg} and MV_{ind} therefore are both continuous at the cutoff.

Table 5
Discontinuity checks for covariates.

Covariate	Optimal bandwidth	Observations	Coefficient	*p*-value
MV_{agg}	4.85	144	3.76	0.61
MV_{ind}	5.33	1673	–0.06	0.91

Source: Author's calculations.

Table 6
Discontinuity checks for outcome variables.

Alternative cutoff (2012)	Optimal bandwidth	Observations	Coefficient	*p*-value
T.Exp	4.03	144	–3.05	0.34
T.Bal	4.96	144	2.19	0.55
NofFree	5.04	176	0.19	0.91
NofLoans	3.22	112	2.80	0.05
MjrArr	5.62	1684	0.05	0.50

Source: Author's calculations.

Table 6 presents the results of the discontinuity check for the outcome variables at 2012. The *p*-value for *NofLoans* is 0.05 which indicates significance at 95% confidence therefore *NofLoans* fails the discontinuity check. The average treatment effect estimation for *NofLoans* is not presented in the Results section.

The third test for checking the validity of a RD design is to check the continuity of the assignment variable's density at the cutoff. As Lee and Lemieux (2010) underline: "RD designs can be invalid if individuals can precisely manipulate the assignment variable." The continuity of the assignment variable density indicates that individuals near the cutoff did not manipulate the assignment variable. Since time is the assignment variable in this case, it is not possible for individuals to manipulate, therefore the RD design passes all three tests, hence it is valid.

4. Results

Table 7 presents the results of the RD design for transfer expenditure, transfer balance, number of free transfers and major league arrivals. The coefficient column presents the average treatment effect of the break-even regulation on each outcome variable. Since *NofLoans* failed the alternative cutoff test, it was left out.

Table 7
Break-even effects.

Outcome variable	Optimal bandwidth	Observations	Coefficient	*p*-value
T.Exp	5.22	176	–9.99	0.01
T.Bal	5.26	176	18.83	0.01
NofFree	5.82	176	1.75	0.17
MjrArr	4.24	1372	–0.15	0.01

Source: Author's calculations.

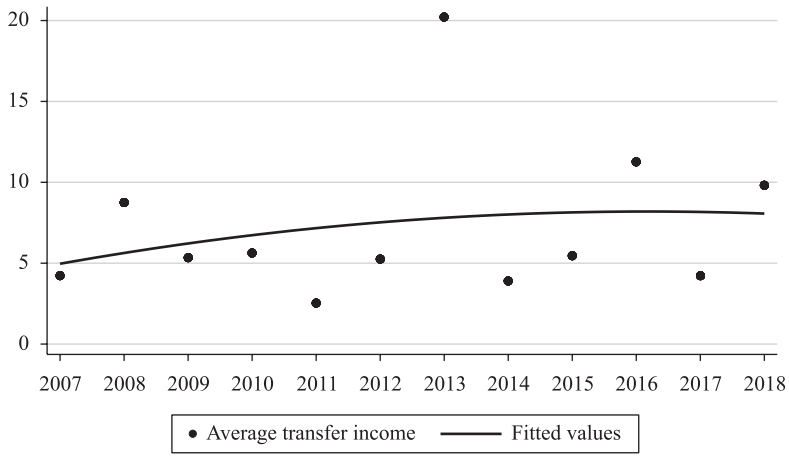

Fig. 1. Average transfer income.

Source: Author's calculations.

The results suggest that break-even is significantly effective on three of the four outcome variables with expected signs. Transfer expenditure and major league arrivals have been adversely affected by break-even and transfer balance is positively affected. When clubs decreased transfer expenditure, their transfer balance improved as expected but the improvement in transfer balance is greater than the reduction in expenditure. The remainder of the improvement comes from increased transfer income. Fig. 1 plots the average transfer income for Russian clubs in the investigated period.

As can be seen from the Fig. 1 there is an upward trend and in the break-even year the average transfer income skyrocketed in the hope of avoiding FFP sanctions yet four clubs failed and were sanctioned due to breaching break-even requirements. Although clubs can't reduce the wages of the players in their squad, they can offer lower wages to new signings. Since there is no wage data for the Russian Premier League, *MjrArr* is used as a proxy for wages and the average treatment effect on wages is negative. There is a 15% decrease in the number of players arriving from major leagues; although the exact impact on wages can't be precisely estimated, it is reasonable to assume that there is a substantial decrease in the wages of new transfers after break-even came into practice.

Although the coefficient of *NofFree* has the expected value, it is statistically insignificant in any of the acceptable confidence intervals. There is no evidence to suggest that Russian clubs completed more free transfers after break-even.

Figs. 2, 3 and 4 present the impact of break-even on transfer expenditure, transfer balance and major league arrivals as well as plotting the data bins. Figs. 2, 3 and 4 are the plots of the non-parametric RD design estimations' results which were presented in Table 7. As the graphs illustrate there is significant discontinuity in transfer expenditure, transfer balance and major league arrivals after break-even came into practice in 2013.

To investigate how break-even affected the demographics of transfers, in the Russian Premier League, the average age of transfers and the number of new under 21 (U21) and over 32 (O32) arrivals to the league are investigated. Fig. 5

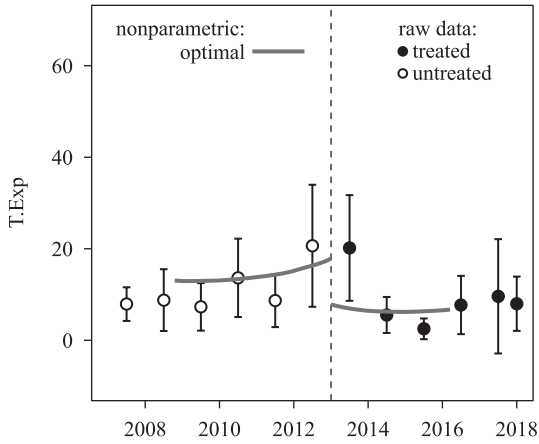

Fig. 2. Policy impact on transfer expenditure.

Source: Author's calculations.

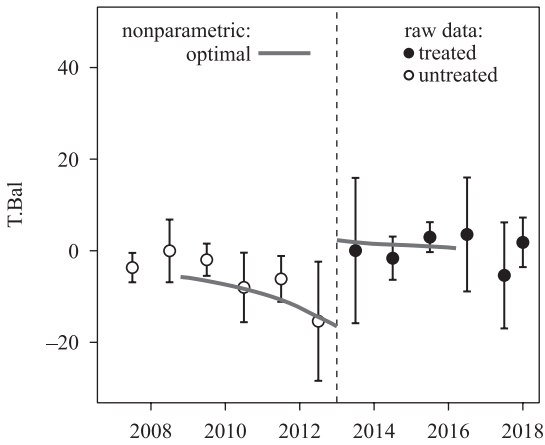

Fig. 3. Policy impact on transfer balance.

Source: Author's calculations.

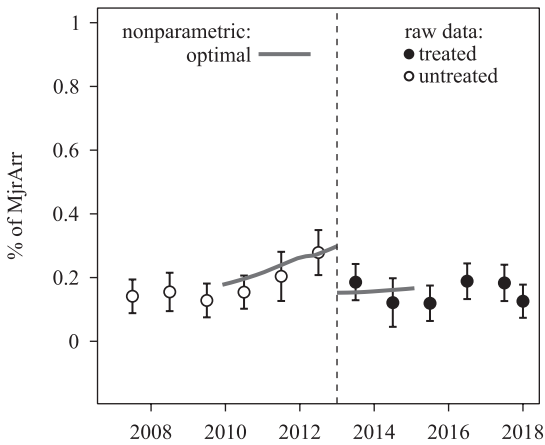

Fig. 4. Policy impact on major league arrivals.

Source: Author's calculations.

illustrates the average age of transfers and Fig. 6 illustrates the number of U21 and O32 new arrivals.

The break-even did not have any effect on the average age of the transfers. However after break-even, the number of youngsters transferred by Russian clubs started to increase whereas there is no significant change in the number of O32 players.

Figs. 7, 8 and 9 present the fitted values for coefficient of variation of points, range of winning percentages and Gini coefficient of points whereas Table 8 presents the average value for each measure in pre and post break-even periods.

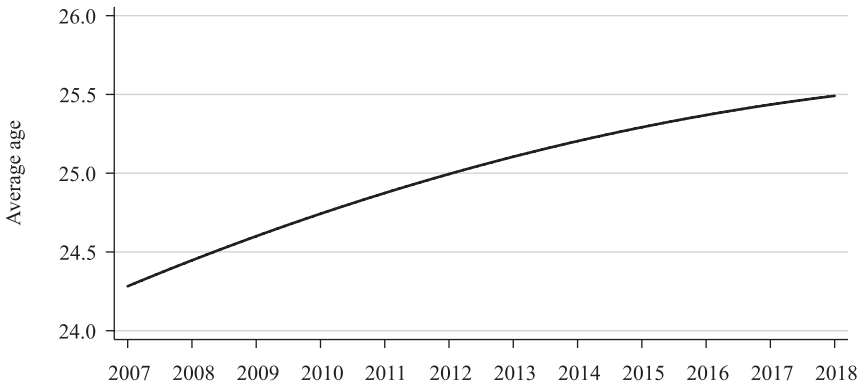

Fig. 5. Average age of transfers.

Source: Author's calculations.

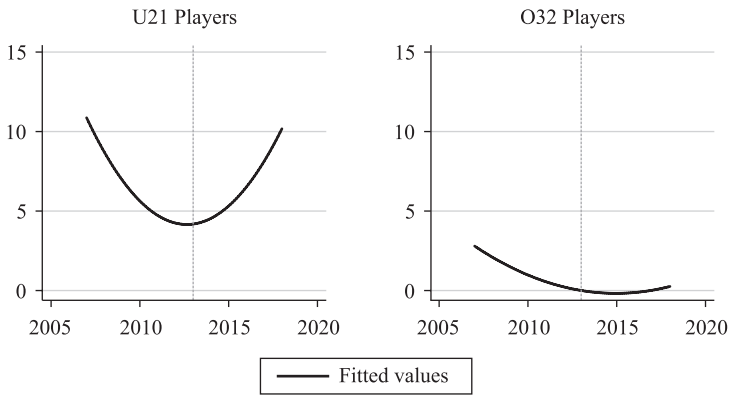

Fig. 6. Newcomers to Russian Premier League.

Source: Author's calculations.

Table 8
Measures of competitive balance in pre and post break-even periods.

Measure	2007–2008/2013–2013	2013–2014/2017–2018
Coefficient of variation of points	0.308	0.334
Range of winning percentages	0.473	0.495
Gini coefficient of points	0.149	0.182

Source: Author's calculations.

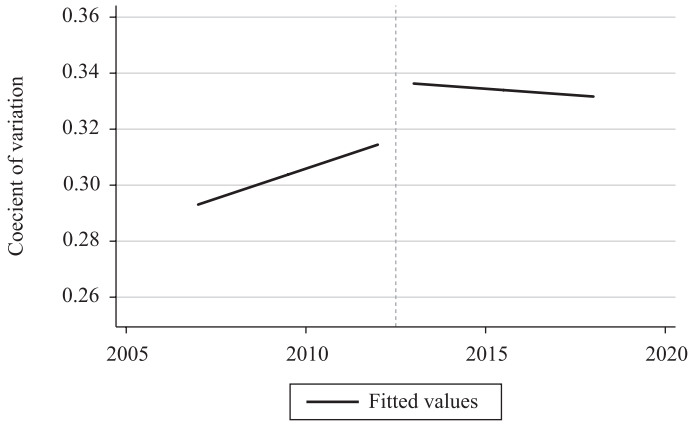

Fig. 7. Coefficient of variation of points.

Source: Author's calculations.

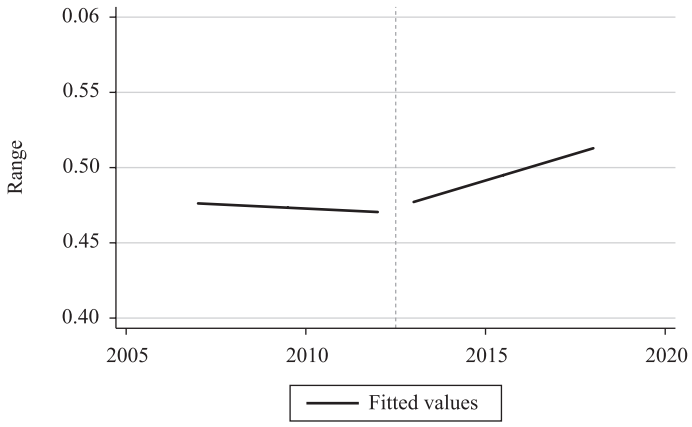

Fig. 8. Range of winning percentage.

Source: Author's calculations.

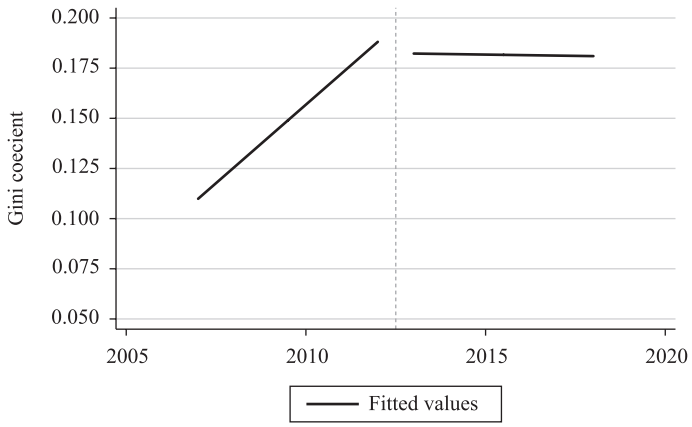

Fig. 9. Gini coefficient of points.

Source: Author's calculations.

5. Discussion

With the introduction of break-even, non-Big 5 clubs have been sanctioned numerous times as displayed in Table 2. In the investigated twelve-year period Russian clubs spent 1.93 billion euros on transfers which makes the Russian Premier League the sixth highest spending league in this period.[2] In the hope of keeping up with the teams of Big 5, Russian clubs over-spent on transfers and wages which led to the accumulation of debts that resulted in failing to meet FFP requirements, hence sanctions.

The immediate reaction for break-even is to cut expenses which reflects on transfer expenditure, therefore the Russian clubs reduced their transfer expenditures as Table 7 and Fig. 2 suggest. The aggregate transfer expenditure decreased almost 10 million euros on average due to break-even and the transfer balance improved by almost 19 million euros. The remaining improvement in the transfer balance is due to the increasing transfer income as Fig. 1 illustrates. However, the initial efforts in order to conform to break-even were not enough for some of the clubs. All of the four Russian teams, sanctioned due to breaching break-even, were punished in the 2015/2016 season because of recording losses of more than 30 million euros in total in the 2012/2013, 2013/2014 and 2014/2015 seasons.

An increase in the number of free transfers was an anticipated spill-over effect. However it is statistically insignificant, therefore the spill-over cannot be validated. As mentioned earlier, Russian clubs have a 70% wage-to-revenue ratio and therefore wages are the top element of cost. Although preferring free transfers over paid transfer would reduce transfer expenditure, players' salaries have to be paid which would increase the total cost. Often, teams of non-Big 5 have to pay huge salaries to attract players from the Big 5 leagues and some other major leagues. To investigate Russian clubs' efforts to reduce wages and to examine how the career profiles of transfers have changed after break-even, the impact on *MjrArr* is estimated. As data in Table 7 illustrates, there is a 15% decrease in the number of players which arrived from the major leagues. This indicates two crucial points. In order to reduce their wage bills, Russian clubs started transferring players from lesser leagues which might also indicate that the quality and the popularity of transfers have decreased after break-even came into practice.

Figs. 5 and 6 present the average age of the transfers and the number of U21 and O32 newcomers to the league. The average age of transfers is increasing and there is no break-even impact on it, however, after break-even Russian clubs started transferring more U21 players. First, U21 players are relatively cheaper and second, they might turn into transfer income in the following years if clubs can manage to improve them. Since the number of U21 players is increasing as well as the average age of transfers, it can be concluded that although Russian clubs are transferring few O32 players, they are transferring relatively older players.

Although break-even affects all clubs, those with lower revenues are affected more since break-even limits clubs' expenditure so that it is commensurate with their income. Giants of the league such as Zenit, Spartak Moscow, Lokomotiv Moscow and CSKA Moscow, have more revenue to spare on wages and transfer

[2] https://www.transfermarkt.com/transfers/transfersalden/statistik/plus/0?sa=&saison_id=2007&saison_id_bis=2018&land_id=&nat=&pos=&w_s=

expenditure, whereas teams with lower income are on tighter budgets. Since teams with lower revenues cannot overspend and accumulate debt after break-even they are less able to compete with the giants of the league. As Table 8 and Figs. 7, 8, 9 suggest the competitive balance deteriorated, in all of the three measures, after break-even in the Russian Premier League. Vöpel (2011) argues that FFP will improve the competitive balance among the leading teams and that is the case in the Russian Premier League. In the post-break-even period, the four giants of the league were all able to win the title. However in the pre-break-even period, Rubin Kazan was able to win the title twice for the first time in their 70-year history. Rubin Kazan has become a regular relegation fighter since break-even. There are huge revenue gaps among teams and break-even limits teams' expenditure, therefore surprise winners are less likely to occur in the coming years.

When UEFA introduced the FFP regulations, the primary objective was to improve the sustainability of football in Europe. Although FFP improves the financial sustainability of football, the sustainability of competition is as important. As the previous studies and this one suggests, FFP might be undermining the competitive balance which should not be disregarded.

6. Conclusion

This study provides empirical evidence regarding the influence of break-even regulation using evidence from the Russian Premier League. Break-even did not only force clubs to improve their finances but also affected the demographics of the transfers and the competitive balance in the Russian Premier League. The limit on clubs' expenditure causes teams with lower revenues to transfer either younger or relatively lower profile players. Clubs which fail to find young and relatively cheaper talent will fail in inter-European competitions. In the case of the Russian Premier League, the competitive balance deteriorated in favor of the giants of the league. The latter have higher revenues, therefore they are able to spend more which causes the gap between them and lesser teams in the league to widen. The importance of success in domestic competitions is increasing in order to generate revenue, especially for the non-Big 5 leagues.

The long-term survival of clubs depends on their ability to prevent the accumulation of debt. The stakes have grown too high over the last few decades in European football. A number of clubs, which failed to meet the financial regulations, have been sanctioned by UEFA and as a result they had to cut their costs which reflected on their transfer expenditures. Russian Premier League teams have experienced significant reductions in their transfer expenditures in order to comply with regulations. Although the decision has not been finalized yet, Manchester City, the first Big 5 team to get sanctioned, has been banned from UEFA competitions for failing to meet the FFP requirements. Not only clubs from other leagues but also from the Big 5 are in danger.

The financial health of the clubs from other leagues affects European football as a whole. In the 2018/2019 season, more than half of all registered players in both the English Premier League[3] and German Bundesliga[4] are foreigners and

[3] https://www.transfermarkt.com/premier-league/startseite/wettbewerb/GB1
[4] https://www.transfermarkt.com/1-bundesliga/startseite/wettbewerb/L1

most of these players come from Europe's smaller leagues. The financial health of the clubs from smaller leagues is crucial for the sustainability of European football. As smaller league clubs improve their finances they will be able to compete with the giants of Europe, hence increasing the competitive balance. In this sense, Portuguese, Dutch, Russian and Turkish clubs are the first candidates in line to achieve something big in UEFA competitions. These leagues have higher competitive power both on and off the field compared to other small leagues.

European football clubs are going through a transition period and the ones who successfully complete their financial transition will eventually complete their competitive transition.

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