

Player migration and opportunity: examining the efficacy of the UEFA home-grown rule in six European football leagues.

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1 **Player Migration and Opportunity: Examining the Efficacy of the UEFA**
2 **Home-Grown Rule in Six European Football Leagues**

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8 **ABSTRACT**

9 The introduction of UEFAs home-grown rule occurred for the start of the 2006-07
10 season, with the full quota in place from 2008-09, which imposed quotas on
11 European clubs. From 2008 clubs are required to have at least 8 players classified as
12 home-grown in the 25-player squad, up from 4 in 2006-07 and 6 in 2007-08. This
13 study examines the efficacy of this rule across the six major European leagues
14 (England, France, Germany, Holland, Italy and Spain) in relation to playing
15 opportunities (minutes played and appearances) between 1999 and 2015. This was
16 also examined in relation to age. Since the home-rule was introduced for the six
17 nations hosting the major leagues, the rule had different impacts by nationality. Only
18 Germany saw significant increases in the proportion of minutes played by their
19 players when comparing the periods before and after the home-grown rules were
20 imposed. Holland, albeit seeing a slight decrease overall, saw significant increases
21 for playing time for under 21s and 22-25 year olds. England and Italy were the two
22 nations where statistically significant decreases in indigenous playing opportunities
23 were recorded since the home-grown rules were introduced.

24 **Key words:** Association Football, UEFA Home-Grown Rule, Player Migration,
25 European Football Leagues

1 INTRODUCTION

2 A recent study about the impact on indigenous players from the launch of the
3 English Premier League (EPL) in 1992 indicated that there had been a major change
4 in the nationality of players playing in the EPL [1]. The study demonstrated that over
5 20 years of the competition (to 2011/12) there was a significant downturn in the
6 opportunities available for English players, i.e. those eligible to play international
7 football for England. This conclusion was based on total appearances made in the
8 EPL and the overall number of players in the league. One limitation identified within
9 the study was that, although the methodology was more in-depth than previous
10 studies of this nature, it did not take into account the quality of the appearance, i.e.
11 the number of minutes on the pitch. Furthermore, despite outlining the developing
12 issue of playing opportunities within the English game, this issue was not fully
13 investigated in comparison with other European leagues.

14

15 This study aims to analyse and compare player opportunities using the
16 following parameters; nationality, number of players, appearances, minutes played,
17 and player age for six major European leagues (England, Spain, Italy, Germany,
18 France and Holland) between 1999 and 2015. The analysis also focusses specifically
19 on the efficacy of the "home-grown" rule, introduced incrementally by UEFA
20 between 2006 and 2008 [2], for the nations included. The rationale for using these
21 six competitions is developed in the literature and detailed in the methodology.

22

23

1 **LITERATURE REVIEW**

2 Two major factors changed the nature of player migration in world football in
3 the 1990s; the Bosman ruling and the withdrawal of quota rules. The Bosman ruling
4 prohibited clubs from withholding player registrations following the conclusion of a
5 contract which empowered players with greater potential with regard to freedom of
6 movement. The old quota rules restricted the amount of players clubs were permitted
7 from outside of their National Association.

8

9 Further to the changes in the 1990s, there have been two major additional
10 changes to the rules governing elite football clubs since 2006; the "home-grown"
11 rule, phased in over three seasons from 2006-07 [2] and UEFA's Financial Fair Play
12 regulations (FFP) from the 2013-14 season [3]. Concerns emanating around player
13 development were a catalyst for the introduction of the home-grown rule by UEFA,
14 which had the intention to protect playing opportunities for indigenous players,
15 particularly younger professionals. Previous authors [4, 5] argued that the
16 expectation from UEFA was that the legislative rule changes would act as a panacea
17 to increase the profile and value of young home-grown professionals. It was
18 anticipated that this raised profile would create a culture of development where elite
19 clubs increase their interest, investment and resource into internal talent development
20 programmes. The value of home-grown players, it was hoped, would increase due to
21 this intervention by Europe's governing organisation. There were, however, concerns
22 raised around this rule due to conflicts with European Union laws on the freedom of
23 movement [6].

24

1 The rule changes regarding governance of the game come against a milieu of
2 greater commercial investment in elite football, particularly at the very top with the
3 expansion and popularity of the UEFA Champions League, and lucrative domestic
4 TV deals. For example, in 1983 the British Broadcasting Corporation (BBC) paid
5 £2.6million for the elite division television rights, compared to Sky paying £1.314
6 billion for the television rights between 2007 to 2010 [7]. The three year deal for the
7 2016/17 season to 2018/19 was almost four times this figure at £5.136bn [8].
8 Prioritising player development and maximising commercial revenues may not
9 necessarily be symbiotic for different stakeholders. It could be argued that there is a
10 dichotomy that has been widened by the greater rewards and finances involved.

11

12 The expansion of the UEFA Champions League, arguably the world's
13 premier club competition, has resulted in advanced financial rewards and, in terms of
14 player development, also adds another layer to this debate. For players, the lure of
15 elite clubs in the countries with the most qualifying places for the competition, and
16 the rewards available, means that those leagues offer the most routes into the
17 competition for players. Furthermore, the relaxed rules on non-indigenous players
18 have opened up European football to different nationalities. For example, in the
19 2014/15 group stages of the competition, the last season in this sample, Riach [9]
20 outlined that only Spain (75) had more Champions League players than Brazil (68).
21 Germany was third (with 51), followed by France (37), Portugal (34), Italy (26),
22 Argentina (24) and Holland (22). England was ranked ninth (21 players), despite
23 being one of three countries (with Spain and Germany) currently allocated the
24 highest number of entrants (four), with a guarantee of three group stage places.
25 Notwithstanding Europe's premier club competition, the role of elite player

1 development is likely to be harnessed across the entirety of the domestic leagues,
2 rather than just the top clubs that play in the Champions League. Gardner and Welch
3 [10, p. 776] highlight the ability of Europe's elite clubs to qualify regularly for the
4 UEFA Champions League. This means that they can "control the top playing talent
5 whose nationality is largely irrelevant", and this has an impact on the development
6 opportunities available at the top clubs.

7

8 In 2008, for the first season when the most stringent home-grown quota was
9 in place (eight players in a 25 man squad), it has been outlined [11] that the English
10 top division had the highest proportion of non-indigenous players registered (not
11 appearance data) at 63%, compared to 51% in Germany, 41% in Spain and 36% in
12 Italy. Interestingly, their analysis linked elite leagues with national team performance,
13 and concluded that the Bosman ruling appeared to have a greater negative impact on
14 domestic development in Spain, Italy, the Netherlands, Belgium, and Sweden.
15 England was deemed not to have seen a greater negative impact compared to other
16 nations. Despite this assertion, Italy won the World Cup in 2006; Spain did so in
17 2010 and won the European Championships in 2008 and 2012. Furthermore, the
18 authors concluded [11, p.19] "the average impact on the 'big six' countries was fairly
19 small...these six leagues as a whole, have not been greatly affected."

20

21 Binder and Findlay [11] also concluded that there was no evidence that
22 England was affected negatively. They suggested that England's deficiencies on the
23 international stage were due to performance in critical points in individual matches,
24 rather than due to a limited number of talented players. In a separate study in
25 Belgium [12], it was concluded that the quality of the top-flight championship teams

1 had deteriorated due to the outward migration of the better players to clubs with
2 larger budgets, paying higher salaries. This had a negative effect for Belgian clubs
3 competing in European club competitions, where clubs were less competitive
4 compared with clubs from the 'Big Five' countries. This scenario suggests a lower
5 level of exposure to the elite European competitions for players playing outside of
6 the main leagues.

7

8 Concerns regarding player development in the upper echelons of the games
9 governing organisation were cited as the rationale behind the rule changes. Studies
10 suggest issues with player development are more pronounced in some countries.
11 Green [13] suggested that English professional clubs invest an estimated £40m
12 annually into their youth academy programmes. However, the residual impact on the
13 elite league is minimal for this investment. As Slot [14] highlighted, only a small
14 number (25–30) of young English players (23 or under) were entering the Premier
15 League each year. This limited trend of new players to the league continued to
16 2011/12 alongside the overall decline in English players in the English top league
17 since the EPL's inception [1]. This study outlined that English players accounted for
18 just over a third of all appearances (37%) in the twentieth season (2011-12),
19 compared to just over two-thirds (69%) in its first year (1992-93).

20

21 The UEFA home-grown rule was phased in over three years, first
22 implemented in 2006-07, with full regulations in place at the start since the 2008-09
23 season, where eight home-grown players are required in a 25 man squad, increased
24 from four in 2006-07 and six in 2007-08 [15]. The ruling is applicable across all the
25 major leagues, and has been in place in full for seven seasons (to 2014-15). As

1 highlighted in a previous study [1], the term 'home-grown' does not necessarily mean
2 indigenous to the country in which they are employed. The ruling states that if a
3 player is "trained by their club or by another club in the same national association for
4 at least three years between the age of 15 and 21" then they qualify under the home-
5 grown rules in the country they are employed [15].

6
7 The key phrase in the ruling is 'regardless of nationality'. Cesc Fabregas
8 (Spanish - when at Arsenal, England), Leo Messi (Argentinian - at Barcelona, Spain)
9 and Cristiano Ronaldo (Portuguese - when at Manchester United, England) are high
10 profile examples of players that qualified as home-grown at clubs which were
11 outside of their national association. This part of the ruling, albeit designed to protect
12 opportunities for younger players in their own national association competitions as a
13 whole, means it is not a measure that can ring-fence opportunities for indigenous
14 players.

15
16 Part of the problem in the English game found by previous research [1] was
17 that English players were not replicating their international counterparts and going
18 outside of their indigenous league. In essence the EPL acts as a silo for young British
19 players, which exacerbates the problem the English face compared to their European
20 competitors, where outward migration is much more prominent. This is examined in
21 the results and discussion. It is not to say that international player migration is
22 negative for player development. If a national association can produce a pool of 30-
23 40 top level players then the national team could be competitive, but this is arguably
24 more likely with a larger base, with increased competition for places. Furthermore, it
25 was suggested that coaches within youth academies viewed that migrating players

1 from overseas can have a beneficial impact on other players [16]. This was termed
2 this as "feet-exchange" where overseas players have a positive influence on the
3 technical skill of other players. It was identified in the study that if indigenous
4 players were not making the transition from the academy to the first team it was
5 because they were not good enough. Ensuring indigenous players are of the requisite
6 quality is the responsibility of the host system, not the players migrating into it, was
7 a concluding point of their study.

8

9 Cross nationality migration in football has accelerated since the Bosman
10 ruling and, allied with the increased financial rewards, has seen changing recruitment
11 strategies which has an impact upon the opportunities made available to indigenous
12 players. Europe is the core of football, in financial terms, accounting for 80% of the
13 revenue generated in world football [17]. The so called 'big five' European leagues,
14 with the enhanced revenue and greater entry into the elite competitions, are also at
15 the forefront of international player migration [18, 19, 20]. The recruitment strategies
16 of the 'big five' leagues were examined [17] which demonstrated that between 2004-
17 05 and 2008-09, the number of indigenous home-grown players reduced from 60%
18 to 55%. Another demographic change in European club football is the national origin
19 of managers in the elite leagues, with more managers working outside of their
20 national association which, has resulted in changes to the nationality of players
21 recruited [21].

22

23 Player migration occurs on different levels, with three different levels of
24 trade [22]. First, players moving between clubs in the same nation; second, players
25 moving between clubs from different nations but in the same continent; and third,

1 players moving between clubs from different continents. Migration within football
2 has been shifting across these levels of trade, from trading between nations close to
3 each other to trading across continents [19]. Some migration between countries is to
4 be associated with historical ties [23, 24]; although in the modern era there are few
5 international boundaries when it comes to player transfers.

6
7 The overall objective of this study was to extend the analysis in the study by
8 Bullough and Mills [1] to look at the volume of the playing opportunity between
9 1999-2000 and 2014-2015 (16 seasons). The results expand the analysis by adding
10 two extra layers (minutes played and age), broadened across six leagues. The aims of
11 this study were: (1) to compare playing statistics in the national leagues for England,
12 Spain, Italy; Germany, France and Holland, in relation to both their 'home' league
13 and in the other five leagues (2) to aggregate playing data from nationalities outside
14 these six leagues (3) assess the impact on indigenous players of UEFA's home-
15 grown rule across the six European leagues; and (4) analyse player age within those
16 six leagues to examine opportunities for younger players. This method of assessing
17 opportunities for players across the major European leagues allows comparison
18 between nationalities and leagues since 1999.

19 **METHOD**

20 The study by Bullough and Mills [1] outlined that the nature of the analysis
21 in terms of player development had focussed more on the starting line-up, or the
22 squad, rather than performance related data. That study aimed to analyse player
23 development in England by collating the number of appearances rather than the
24 number of players as a percentage of the squad due to a gap in this area of study.

1 This study is an extension of that original work, both in terms of focus (pan-
2 European) and detail (including minutes played and age).

3

4 Other published research around player development or analysis of
5 opportunity has employed different approaches to measure efficacy. Methodological
6 approaches have calculated the percentage of home nationalities in starting line-ups
7 [25]; the composition of the squad players' nationality [26]; and the number of
8 appearances [1]. As noted earlier, the home-grown rule relates to the make-up of the
9 competition squad players (25), not the starting line-up (11) or the match day squad
10 (18). Bullough and Mills highlighted this in 2014 [1, p. 639] "this particular
11 stipulation means that clubs could, in theory, largely circumvent the rule by
12 including home-grown players (in the 25 man squad) without the intention of
13 playing them". Analysis of player numbers and age, appearances, and minutes
14 therefore become key determinants to illustrate how each league and country
15 compare.

16

17 Using appearances alone, however, does not give an indication of the quality
18 of the opportunities for young players in terms of minutes played, which is a more
19 accurate measurement of the type of playing opportunity. Furthermore, more detailed
20 analysis may act as a more robust indicator for understanding career development by
21 nationality/league, new entrants to the league and changes in player migration.

22

23 SAMPLE

24 The sample for the study involved six major European leagues; England
25 (EPL), Spain (La Liga), Italy (Serie A), Germany (Bundesliga), France (Ligue 1),

1 and Holland (Eredivisie), from 1999 to 2015. The rationale for the selection of these
2 six leagues was supported by previous research. Binder and Findlay [11, p. 8]
3 outlined these nations as "the so-called 'Big Six' countries with the strongest
4 domestic leagues, the highest average attendance, and apparently the greatest
5 percentage of foreign players". For all 16 seasons included, the following details
6 were collated; player name, player nationality, player age, club attached to, league
7 played in, season played, number of appearances, and minutes played.

8
9 Overall, this produced data from 1,840 squads and 13,332 different players
10 from 144 nationalities. The playing data totalled 915,874 appearances during the 16
11 year period and 65,639,678 minutes of play. At the end of the 2014/15 season, four
12 leagues consisted of 20 teams (England, Spain, France and Italy), with Holland and
13 Germany having an 18 team league. This is important as the two leagues with 18
14 teams has 74 fewer fixtures each season than the other four leagues, or 1,184 fewer
15 over the 16 year sample period which has an effect on playing opportunities. Italy
16 increased its competition size from 18 to 20 teams for the 2004/05 season, as did
17 France for the 2002/03 season. It is important to bear this caveat in mind when
18 comparing domestic statistics for Holland and Germany (4,896 fixtures each) and to
19 a lesser extent Italy (5,710 fixtures) and France (5,858) compared to England and
20 Spain (6,080).

21

22

23 DATA ANALYSIS

24 Statistics for the nationality variables generated data for each season, in each
25 league. The data for each country are compared between seasons using appearance

1 data and minutes played, with additional clusters of seasons created to examine
2 changes in the rules, for example the impact of the UEFA rules on home-grown
3 players since 2008-2009. For those players indigenous to the six leagues under
4 investigation, the age of the player (at the start of the season) was also recorded.

5

6 **RESULTS**

7 The overall playing data shows that the six nations included in the study
8 recorded the top six aggregated appearances and minutes played over the sixteen
9 year sample, although the difference between nations is significant. For example,
10 Spanish players made 50,095 more appearances and 3,368,754 more minutes on the
11 pitch than the sixth ranked nation, England (see Table 1). Furthermore, England,
12 despite being one of the nations with twenty clubs in their league (with 1,184 more
13 fixtures played over the 16 year sample compared to an 18 team league), rank lower
14 than the nations hosting an 18 team league.

15

16

1 **Table 1. Aggregated playing data by player home nation (1999-2015)**

	Appearances		Minutes		Ave. minutes per appearance	
	Sum	Rank	Sum	Rank	Ave	Rank
Spain	111,979	1	7,928,242	2	70.80	54
France	109,879	2	8,093,916	1	73.66	30
Italy	99,952	3	7,253,345	3	72.57	35
Holland	90,840	4	6,505,266	4	71.61	45
Germany	66,095	5	4,801,622	5	72.65	34
England	61,884	6	4,559,488	6	73.68	28
Brazil	39,322	7	2,863,052	7	72.81	32
Argentina	32,332	8	2,319,620	8	71.74	44
Belgium	14,974	9	1,074,835	9	71.78	43
Portugal	11,187	10	795,895	10	71.14	48

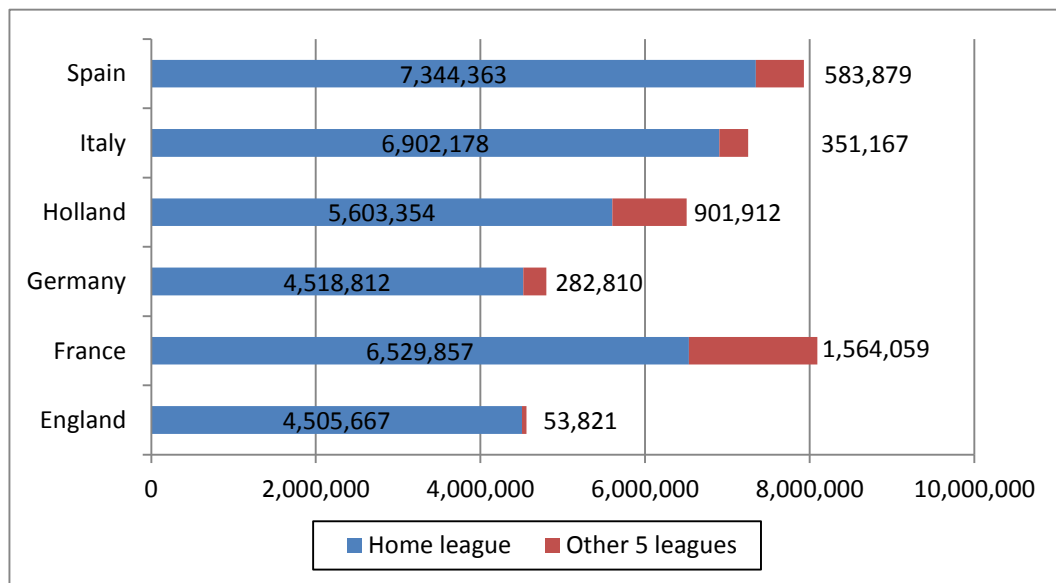
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3 When the six countries are further evaluated by splitting playing time
4 between the domestic leagues for that national association and in the other five
5 leagues, the data outlines disparities between nations. Previous research [1] cited the
6 issue around the English Premier League acting as a silo for English players, and
7 Figure 1 demonstrates that this issue is exacerbated when compared with other
8 nations. In terms of minutes played by English players outside the EPL in the other
9 five leagues, England recorded only 19% of the next lowest total (Germany) and just
10 3% of the highest total (France). Coupled with the finding that English players
11 recorded the fewest minutes in their domestic league, the level of playing time is
12 behind their European counterparts. This disparity becomes even greater when one
13 considers that the German and Dutch players compete domestically in an 18-team
14 league compared to 20 teams in England.

15

16

1 **Figure 1. Minutes played at home and in the other five leagues (1999-2015)**



2

3

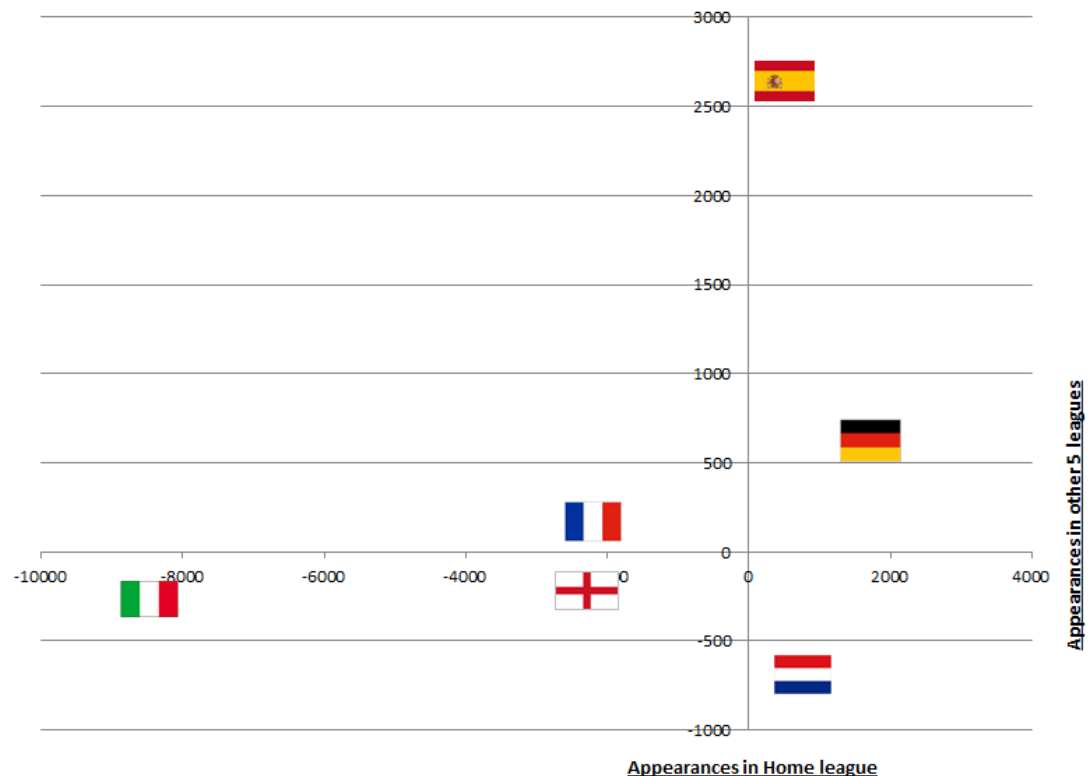
4 EFFICACY OF THE HOME-GROWN RULES

5 The introduction of the home-grown rule was designed to protect
6 opportunities for home-grown players, although the major issue with the ruling, as
7 explained, surrounds the 'regardless of nationality' element. The following analysis
8 looks at the efficacy of the rule changes. Overall, from 1999 to 2015, indigenous
9 players from the six leagues included in the sample accounted for 59% of all
10 appearances and 59% of minutes played. Before the full home-grown rule was
11 introduced (1999-2008), it was 61% of appearances and 62% of minutes and this
12 reduced to 57% (for both measurements) in the seven seasons since its inception.
13 This suggests that, at a headline level, the rule has not increased (or protected) the
14 proportion of playing opportunities made by players from the six major European
15 leagues. However, the impact has been different depending on nationality, both in
16 terms of playing opportunities in the league in their own national association, and in
17 the other five major leagues. Figure 2 outlines the change in the appearances made

1 by nationality at 'home' and in the other five leagues for the seven years since the full
2 home-grown rule was in place, and the seven years beforehand.

3

4 **Figure 2. Change in appearances (2001/02 to 07/08 versus 2008/09 to 14/15)**



5

6

7 Although the proportion of appearances made by indigenous players to the
8 six leagues reduced by 4 percentage points overall, this differs by nationality.
9 Comparing nationalities against themselves, and not accounting for age or minutes
10 played, three nations saw an increase in the number of appearances made by their
11 players in their home league (Germany Holland and Spain), with Germany and Spain,
12 along with France, seeing an increase in the number of appearances made in the
13 other five leagues. England and Italy saw reductions in appearances made by
14 indigenous players in their domestic league and in the other leagues. Although
15 Figure 2 outlines how nations have performed against themselves, it does not take

1 into account overall volume (i.e. Italy appear to fare worse than England in Figure 2
2 but recorded over 38,000 more appearances across all 6 leagues, Table 1). This is
3 discussed in more detail later.

4

5 When continuing to analyse the proportion of appearances made in players'
6 own national association, there are subtle differences. Regarding the age of players
7 when they play, in the Eredivisie (Holland), 30.3% of all appearances made by
8 Dutch players were aged 21 or under, which is almost double that of Serie A (Italy)
9 at 15.8% (Table 2). The Italian league saw almost a third of appearances by Italian
10 players over the age of 30 (31.1%) which is much greater than Holland and Spain
11 (19.5% and 19.3% respectively).

12

13 **Table 2. Proportion of all appearances by players in their domestic league (1999-2015)**

	Proportion of nations appearance spread					TOTAL
	Under 21	22-25	26-29	30-34	35+	
England	26.3%	27.4%	24.4%	18.2%	3.7%	100%
France	23.4%	28.0%	27.3%	19.2%	2.1%	100%
Germany	23.6%	29.9%	25.2%	17.7%	3.6%	100%
Holland	30.3%	28.5%	21.7%	15.9%	3.6%	100%
Italy	15.8%	23.5%	29.6%	25.9%	5.2%	100%
Spain	20.3%	31.7%	28.8%	17.2%	2.1%	100%

14

15 The spread of the age where players from each nationality appear in their top
16 division suggest that the demographic profile of players differ between leagues, with
17 Dutch players more likely to play in the Eredivisie under the age of 25 (58.8%)
18 compared to Italian players in Serie A (39.3%). However, a clearer indicator of this
19 is the proportion of minutes played by indigenous players in their own domestic
20 league as a representation of all minutes played, as shown in Table 3.

21

1 **Table 3. Proportion of minutes played by players in their domestic league (1999-2015)**

	Under 21	22-25	26-29	30-34	35+	TOTAL
England	5.7%	11.8%	11.3%	7.8%	1.2%	37.9%
France	7.9%	17.6%	18.0%	12.0%	1.4%	56.8%
Germany	6.9%	15.4%	14.0%	9.0%	1.5%	46.8%
Holland	13.6%	19.1%	14.7%	9.8%	2.2%	59.4%
Italy	3.8%	15.7%	21.3%	17.4%	3.2%	61.3%
Spain	7.0%	20.1%	20.7%	12.3%	1.6%	61.7%

2

3 Table 3 outlines that, on a league by league basis between 1999 and 2015,
4 four leagues have seen the majority of minutes played by players from their own
5 nation (Spain, Italy, Holland and France). Two leagues saw the opposite with the
6 Bundesliga (Germany) at 46.8% and the English Premier League at 37.9%. Dutch
7 players aged under 21 have a significantly higher proportion of time on the pitch in
8 the Eredivisie compared with the other five nations (13.6%).

9

10 The effect of the home-grown rule for these six nations, specifically
11 regarding whether the rule is protecting or enhancing opportunities for home-grown
12 players, is outlined in two ways, first using the difference between the first year of
13 the home-grown rule with the most recent in Table 4 and second, using the mean
14 scores across the two periods (pre and post) - see Table 5. When comparing the
15 change between the first year of the full home-grown rules (2008/09) with 2014/15
16 (Table 4), four of the six nations hosting the leagues has seen a statistically
17 significant decrease (applying the Z-Test) to the proportion of minutes played by
18 indigenous players to their leagues. At the under 21 level, two countries saw a
19 significant increase (Holland and France) and Germany had a marginal increase,
20 albeit not significant (+0.0014%). England, Italy and Spain all saw significant
21 decreases at the under-21 level and overall.

22

1 **Table 4. Proportion of minutes played in domestic league 2008/09 versus 2014/15**

		2008-09	2014-15	SIG?		2008-09	2014-15	SIG?		
England	U-21	5.17%	4.15%	Yes	↓	All	37.25%	36.24%	Yes	↓
France	U-21	6.79%	10.39%	Yes	↑	All	54.40%	51.16%	Yes	↓
Germany	U-21	7.51%	7.51%	No	→	All	41.73%	47.47%	Yes	↑
Holland	U-21	13.10%	21.53%	Yes	↑	All	54.68%	65.27%	Yes	↑
Italy	U-21	3.17%	3.40%	Yes	↓	All	61.84%	45.03%	Yes	↓
Spain	U-21	6.79%	5.86%	Yes	↓	All	62.93%	58.58%	Yes	↓
TOTAL	U-21	8.79%	8.20%	Yes	↓	All	67.03%	50.22%	Yes	↓

2

3 Although comparing the first and last season gives an idea of the direction of
 4 change, mean scores across the seven seasons compared with the period before
 5 arguably provides a clearer picture of the impact, and can be seen in Table 5.

6

7 **Table 5. Proportion of minutes played pre and post home-grown rules (1999-2015)**

	Under 21		22-25		26-29		30-34		35+		TOTAL	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
England	7.1	3.9	12.6	10.7	10.7	12.1	8.0	7.5	1.7	0.6	40.1	34.9
France	7.8	8.0	18.3	16.8	19.8	15.8	12.3	11.6	1.1	1.8	59.2	53.9
Germany	5.0	9.2	13.2	18.2	14.6	13.2	11.5	5.8	2.2	0.7	46.6	47.1
Holland	11.3	16.6	17.6	21.1	16.0	12.9	12.0	7.0	2.8	1.4	59.7	59.1
Italy	4.6	2.8	18.7	12.2	24.8	17.2	17.5	17.2	3.2	3.3	68.8	52.8
Spain	7.3	6.5	21.3	18.6	20.8	20.6	11.8	13.0	1.3	1.9	62.5	60.7
TOTAL	7.6	8.0	18.4	17.9	19.7	17.7	13.7	11.8	2.2	1.8	61.6	57.2

8

9 Table 5 indicates a failure of the home-grown rule to protect indigenous
 10 opportunities in some nations, whereas in others the results are more positive. As the
 11 rule is applied 'regardless of nationality', this is the major flaw which does not
 12 protect the nations hosting the major European leagues. England and Italy are the
 13 two nations where the rule has had limited efficacy. England, in particular, has an
 14 organisational dichotomy between the national governing body (the Football
 15 Association) having limited influence or control over the top league (controlled by
 16 The Premier League). Across the six leagues, only German players are recording a

1 higher proportion of minutes played in the Bundesliga since the rule changes, by half
2 a percentage point. This is compared to percentage point decreases (overall) of -16
3 (Italy), -5.3 (England and France), -1.8 (Spain) and -0.6 (Holland). For younger
4 players (under 25), only players representing Germany and Holland have recorded
5 higher proportions in terms of average minutes played (9.1 and 8.8 percentage
6 points), with Italy (-8.3), England (-5.1), Spain (-3.5) and France (-1.3) all seeing a
7 reduction.

9 Analysing the impact on playing time is one approach to examine the
10 efficacy of the rule change and, although the volume of time is important, the
11 average time spent on the pitch is also important as an indicator of the quality of
12 each appearance. The average number of minutes played by indigenous players from
13 each of the six nations is presented in Table 6 comparing pre home-grown rules with
14 post, split by age.

16 **Table 6. Average minutes played (1999/00 to 2007/08 v 2008/09 to 2014/15)**

	Under 21		22-25		26-29		30-34		35+		TOTAL	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
England	68.1	60.1	75.9	72.8	77.2	75.1	77.2	73.4	75.3	67.0	74.9	71.9
France	63.8	62.9	74.3	72.8	77.2	75.7	76.9	74.8	82.1	74.9	74.5	72.6
Germany	63.2	65.5	72.3	73.8	74.3	75.4	75.2	73.8	77.1	78.3	72.7	72.6
Holland	64.7	63.6	74.0	69.7	77.0	71.1	76.9	72.0	77.8	73.6	73.9	68.8
Italy	57.8	56.8	72.2	71.8	75.1	73.7	74.6	74.1	76.5	74.3	72.8	72.2
Spain	65.1	60.5	69.8	70.1	71.7	73.6	75.8	71.9	75.1	75.6	71.0	70.6

18 Table 6 shows that the average amount of time spent on the pitch for each
19 appearance made has slightly decreased for all six countries since the rule change.
20 Combined with the proportion of minutes played decreasing for five of the six
21 countries (excluding Germany, see Table 5), the influx of non-indigenous players

1 continues to impact upon the volume and the quality of the playing opportunity for
2 the hosts of Europe's leading leagues. This occurrence is more pronounced for the
3 youngest players (under 21s) as, although the average number of minutes played by
4 indigenous players has slightly risen in Germany (2 minutes), the other five nations
5 have seen a decrease in the average minutes played: England (by 8 minutes), Spain
6 (5 minutes); France, Holland and Italy (all 1 minute). This is largely similar for 22-
7 25 year olds too, with marginal increases for Spain and Germany, and marginal
8 decreases for the remaining four nations. Although English players record the lowest
9 aggregated appearances and minutes played, alongside their minimal integration into
10 other major leagues, their average time spent on the pitch was the highest before the
11 home-grown rules were introduced (74.9 minutes per appearance). This, however,
12 reduces to the fourth highest average since 2008. This points to a decreased level of
13 opportunities for English players in the last seven seasons, and when they are
14 playing, there has been a decrease in the 'quality' of the appearance, which from a
15 player development perspective is an unhealthy combination.

16

17 When looking across all 144 nations represented in the six leagues, 65
18 countries have seen an increase in the proportion of minutes their players record
19 since 2008, 53 have seen a decrease and 26 have remained the same (summarised in
20 Table 7). Four South American countries are amongst the top ten nations which have
21 seen the greatest increase in the proportion of appearance their players make
22 (Argentina, Colombia, Chile and Uruguay). Four European (Slovenia, Belgium,
23 Switzerland and Austria), one Asian (Japan) and one African nation (Senegal) are
24 also in the top ten in terms of increases. When analysing the nations seeing a

1 decrease overall, the four with the greatest decrease are league hosts (Italy, England,
2 Holland and France).

3

4 **Table 7. Change in overall proportion of minutes played (pre v post rule change)**

Top 10 gains			Top 10 losses		
1	Argentina	0.60%	1	Italy	-1.94%
2	Colombia	0.49%	2	England	-1.31%
3	Slovenia	0.42%	3	Holland	-0.75%
4	Chile	0.40%	4	France	-0.64%
5	Belgium	0.37%	5	Australia	-0.36%
6	Uruguay	0.32%	6	Czech Republic	-0.25%
7	Switzerland	0.31%	7	Ireland	-0.24%
8	Japan	0.30%	8	Russia	-0.20%
9	Austria	0.30%	9	South Africa	-0.18%
10	Senegal	0.29%	10	Denmark	-0.15%

5

6 Furthermore, when analysing countries in the top 30 nations (in terms of
7 aggregated playing time) for the average playing time for under 21s, the highest
8 improvements in average playing time was seen by Croatia (8 minutes increase),
9 Scotland (7 minutes), Wales (5 minutes), Serbia (4 minutes), Denmark and Uruguay
10 (both 3 minutes) and Portugal (2 minutes) rather than the league hosts.

11

12 Career longevity is also a key parameter of the development of elite players
13 that play at the top level. Measured by the average number of seasons players play in
14 the six leagues, the proportion that play in one season only, and the proportion that
15 have played in twelve or more seasons (75%) can be used to examine the career
16 longevity of elite players. Although older players in the sample played prior to 1999-
17 2000, and younger players may have only made their debut in the 2014-15 season,
18 these two limitations are the same across all six countries.

19

1 **Table 8. Career 'progression' - number of seasons played between 1999 and 2015**

	England	France	Germany	Holland	Italy	Spain
Total players	868	1,406	1,084	1,360	1,343	1,575
Total seasons played	3,216	5,482	3,740	4,840	5,230	5,746
Average seasons	3.70	3.90	3.45	3.49	4.08	3.65
% 1 season only	19.3%	25.4%	25.0%	22.8%	20.5%	22.8%
% 1 or 2 seasons	35.8%	39.8%	40.7%	39.1%	35.1%	38.1%
% 12+ seasons (75%)	5.0%	5.2%	2.7%	2.8%	4.5%	3.1%

2

3 The longevity analysis suggests that, based on the 16 season sample, English
4 players are the least likely of the six nations to only play in one season (19.3%)
5 compared to French nationals as the highest (25.4%). French (5.2%) and English
6 (5%) players are the most likely to play in more than 75% of the sixteen seasons,
7 albeit for England based on a much smaller number of players (868). Italian players,
8 although one of the two countries (with England) who have seen a decrease in
9 playing time since the home-grown rules were introduced, have the highest average
10 in terms of seasons played per player (4.08 seasons). When compared with countries
11 where over 50 different players had made an appearance in the major six leagues (N
12 = 42), it shows that five of the six league hosts are amongst the top twenty (Germany
13 are 21st) for the average number of seasons per player, and are all in the top seven for
14 the proportion of players playing for only one season in a major leagues (Czech
15 Republic interrupt the group in fifth), as presented in Table 9. This suggests that
16 imported players from outside the six major nations are more likely to be recruited
17 and subsequently transferred/not used than their indigenous counterparts.

18

19

1 **Table 9. Average seasons and percentage of single seasons (1999-2015)**

Rank		Average Seasons	Rank	% one season	
1	Mali	4.41	1	England	19.3%
2	Ivory Coast	4.34	2	Italy	20.5%
3	Italy	4.08	3	Holland	22.8%
4	Ghana	3.98	4	Spain	22.8%
5	Senegal	3.91	5	Czech Republic	24.6%
6	France	3.90	6	Germany	25.0%
7	Australia	3.79	7	France	25.4%
8	Czech Republic	3.79	8	Mali	26.5%
9	Ireland	3.78	9	Ivory Coast	26.8%
10	Tunisia	3.78	10	Tunisia	27.5%
12	England	3.70	39	Greece	44.3%
14	Spain	3.65	40	Austria	45.1%
18	Holland	3.49	41	Hungary	45.9%
21	Germany	3.45	42	Turkey	54.6%

2

3 **DISCUSSION**

4 The headline results across the six major European leagues suggest that the
5 home-grown rule has been largely ineffective in protecting indigenous player
6 opportunities for those six nations. A simple reason for this is the 'regardless of
7 nationality' part of the ruling which reduces its effectiveness. This is not to suggest
8 that young footballers are not being produced by these six countries, as the evidence
9 shows that they are, albeit a smaller proportion of the playing sample, playing for a
10 slightly shorter average time per appearance. Two nations stand out in terms of
11 success. First, Spain, as the nation which has had the most success in terms of
12 increasing the number of appearances by players playing in their own elite league
13 (La Liga) and in the other five major European leagues - see figure 2. Second is
14 Holland, the stand out nation in terms of providing (and increasing) player
15 opportunities for younger professionals. Two nations have seen a negative impact
16 since the home-grown rules began, England and Italy, which coincide with a longer
17 term downward trend in the proportion, volume and duration of their elite

1 professionals playing time. Notwithstanding this, Italy won the World Cup two
2 seasons prior to the implementation of the home-grown rules.

3

4 As outlined by Bullough and Mills [1], circumventing the home-grown rules
5 in their current format is quite straightforward, both from a selection and recruitment
6 perspective. First, home-grown players can be named in the squad to comply with
7 the quota rules, but not necessarily play in the team. Second, clubs can bring players
8 into clubs from different nationalities so that they spend three years in the country
9 between the ages of 15 and 21 and become home-grown in the country of that club,
10 some of whom are purchased in high value transfers. It could be argued that the
11 rationale for UEFA's original decision to implement these rules, rather than being
12 designed to protect individual nationalities, is designed more to protect the position
13 of its entire affiliate nations and thus European football's position in the world game,
14 rather than the individual countries hosting the main leagues. With European football
15 being the financial core of the world (80% of revenue) [17], and the host of the
16 premier club competition (Champions League), protection and control of the most
17 lucrative commercial opportunities and maintaining the position of prestige may be
18 at the forefront of their priorities.

19

20 **CONCLUDING REMARKS**

21 The UEFA home-grown rule was designed to increase the profile and value
22 of young home-grown professionals, with the creation of a development culture
23 where interest, investment and resource into internal talent development programmes
24 increased. The value of home-grown players, it was hoped, would increase due to
25 this intervention by the governing organisation. Table 9 outlined that imported

1 players from outside the six major nations are more likely to be recruited and
2 subsequently transferred/not used than their indigenous counterparts. However, as
3 the data suggests, in the seven years since the rule was fully introduced in 2008, the
4 opportunities for players from the six major European leagues have not been
5 protected. For three of the six nations, playing time has decreased for indigenous
6 players in their home league (England, France and Italy). Although Binder and
7 Findlay [11] suggested that the impact of Bosman on the 'big six' leagues was small,
8 the results here suggest that there has seen a decline in some countries, particularly
9 England.

10

11 There are a range of studies that highlight the problems with player
12 development and specifically youth development, but effective solutions are less
13 well researched, particularly in terms of successful implementation. Clubs must
14 comply with employment and migration laws around the free movement of labour
15 within the European Union. The Bosman ruling also enhances the opportunities to
16 move clubs and nations. These two legislative requirements alone mean it would be
17 difficult to implement a stricter quota rule, and removing the 'regardless of
18 nationality' would also infringe employment law in Europe. The results show that the
19 impact has been different depending on the nationality, and clearly Holland and
20 Spain in particular appear to have increased their 'market share' of playing
21 opportunities. The statistically significant increase in the proportions of minutes
22 played by young Dutch players is a result that demonstrates that there can be positive
23 developments. Notwithstanding this, the Eredivisie was found to be the least
24 competitive on most parameters of the six leagues examined here [27], therefore it
25 could be argued that it is easier to introduce young indigenous players in this

1 environment, rather than a more competitive league with higher financial risk and
2 reward.

3

4 An example of one method to protect indigenous players emanated from the
5 Chairman of the English Football Association with the suggestion to introduce a
6 more stringent system for players from non-EEA countries (European Economic
7 Area); based on stricter proportions of the international matches they have played in
8 the previous two years [28]. The FA outlined that the application of this revised
9 process would, in the previous five seasons, have resulted in one-third of players
10 being refused a work permit. However, as stated previously, the premier competition
11 in England is not controlled by the governing body, thus making this more difficult
12 to implement. Furthermore, as Table 9 shows, the countries producing the greatest
13 increases in the proportion of players are widespread (four South American, four
14 European, one Asian and one African nation). At present there are 30 EEA nations
15 and one provisional member (Croatia), covering 34 football associations (Wales,
16 Scotland and Northern Ireland are independent nations). These nations generated 73%
17 of all appearances and 74% of minutes played in the sample. Therefore the efficacy
18 of such a limitation on non-EAA players would be limited to trying to control the
19 migration of a minority of players and playing time. Furthermore, if players from
20 outside the EAA region were restricted, and the indigenous players replace them, the
21 standard of elite European football may decline if their places are taken by inferior
22 players.

23

24 Ultimately, the modern game is a commercial product; therefore governors of
25 the elite leagues are interested in creating the most commercially viable product to

1 sell to broadcasters, sponsors et al. This creates an organisational ideology that is not
2 necessarily aligned or mutually exclusive with indigenous player development, but
3 player development regardless of nationality. If the indigenous players are of a lower
4 quality, and their inclusion consequently impacts upon results which threaten the
5 generation of (or protection of) this revenue, clubs and managers at the elite level
6 will prefer players that are ready ahead of those that are still developing. Balancing
7 this pressure from a commercial perspective is a salient issue in the modern era of
8 player development in professional football. The home-grown rule is, in its current
9 form, unlikely to change player development strategies in Europe.

10

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