



UNIVERSITÀ DEGLI STUDI DI PADOVA

Dipartimento di Scienze Economiche ed Aziendali “Marco Fanno”

LATE CAREER OF SUPERSTAR SOCCER PLAYERS:
WIN, PLAY, OR GAIN?

MARTINA GIANECCHINI
University of Padova

ALBERTO ALVISI
University of Padova

January 2015

“MARCO FANNO” WORKING PAPER N.192

Late career of superstar soccer players: win, play, or gain?

Martina Gianecchini
“M. Fanno” Department of Economics and Management
University of Padova
Via del Santo 33, 35123 Padova (Italy)
martina.gianecchini@unipd.it

Alberto Alvisi
“M. Fanno” Department of Economics and Management
University of Padova
Via del Santo 33, 35123 Padova (Italy)
alberto.alvisi@unipd.it

Paper submitted to 30th EGOS Colloquium,

Rotterdam, July 3-5, 2014

Sub-theme 01 (SWG): Beyond the Mainstream: Careers of Special Groups

Introduction

Athletic career is defined as “multiyear sport activity, voluntarily chosen by the person and aimed at achieving his or her individual peak in athletic performance in one or several sport events” (Alfermann & Stambulova, 2007; p. 713). The career of athletes has received considerable attention by sport psychology and medicine (e.g. Stambulova, Alfermann, Statler & Côté, 2009; Wylleman, Alfermann & Lavallee, 2003; Willeman & Lavallee, 2003). On average, athletes start their career at the age of 7 to 10 years and sometimes even earlier, depending on the type of sport. After the age of 27 their sport-related performance starts progressively to decrease due to the ageing process (Stambulova, Stephan & Jäphag, 2007), and by their mid-thirties they retire. However, the trajectory described by this process poorly fits the career of some athletes who extended their career over the “regular” transition points indicated by the literature, at the same time continuing to compete at professional level and earning rich salaries. Such as Kobe Bryant, 35 year old basketball player of Los Angeles Lakers, who is the NBA's highest-paid player and who has signed at the end of 2013 a two years contract according to which he will receive USD 23.5 million in the first year and USD 25 million in the second year. Or like Didier Drogba, Ivorian soccer player who signed in 2012, when he was 34, a one-year contract with the Chinese team Shanghai Shenhua for the value of USD 14 million. These athletes are characterized by being superstar players (just superstars from now on), such as talented performers who are in the highest percentiles of the salary distribution in their occupational market (Rosen, 1981). Therefore, even if they are entering the latter part of their career (when the ageing process decreases their athletic performances, thus reducing their job alternatives) such athletes have, possibly for the last time, good career opportunities, due to their individual characteristics (Forrier, Sels & Stynen, 2009). For instance, in the case of team sports, they may join a top team in order to achieve relevant sport-related results (e.g. win a national or international competition), or sign a contract with lower-tier teams, or teams competing in emerging leagues, in order to obtain more favourable per-year salary, to maximize their overall compensation, or to lengthen their athletic career. In all these cases, their career trajectory deviates from the “traditional” model, thus suggesting alternatives strategies to manage late career.

The aim of this study is to explore the job mobility of superstar soccer players who are entering the declining phase of their athletic career. Studying a sample of European soccer superstars, we will describe their last job transitions identifying a typology of individuals and their relative late career choices.

This study offers potential contributions to both sports and career literature. The sport psychology literature focuses on describing the feelings and the emotional reactions related to the retirement from sport: we add to this literature exploring the job changes which precede the declining phase and the retirement. Secondly, our study is relevant also for the career literature, because it explores the career choices of a special group which characteristics resemble the profile of other professional groups (e.g. high level professionals, top managers) but that received scant attention. Finally, exploring the transition between career cycles (from athletic to post-athletic career), we contribute to the developmental approach to career.

Theoretical background

Athletes' career development

Descriptive models of athletic career (Côté, 1999; Stambulova, 1994; Wylleman & Lavallee, 2003) define it as a succession of stages (initiation/sampling, development/specialization, perfection/mastery/investment, final/maintenance, and discontinuation), which represent a common pattern in the careers of athletes, regardless of the sport practiced and the individual's characteristics. Similar models have been also proposed by the non-sport related literature (e.g. Levinson, 1986; Super, 1980), suggesting that people experience three main career stages: early career (development of the work-related skills); middle career (mastering of the work competencies and development a broader perspective about life and work); late career (progressive disengagement from work and exploration of activities outside the current job).

The athletic career development is punctuated by transitions between the stages: some of them are related to the sport activity (e.g. injuries, transition from amateur to professional), other concern non-athletic aspects of the individuals' life (e.g. getting married, graduating). Wylleman and Lavallee (2003) suggested to classify all these transitions in two categories: normative and non-normative. The former includes predictable passages from one stage to another, that can be anticipated and planned by the athletes. The latter is related to unplanned events that take place in an unforeseen and involuntary way. Retirement due to the aging process is one of the most important normative transitions in the athletic career, which has been generally studied in terms of perceived transition demands, coping strategies and resources for the adaptation to the post-career, and life consequences (e.g. Cecić Erpič, Wylleman & Zupančič, 2004; Torregrosa, Boixadós, Valiente & Cruz, 2004).

Focusing our attention on the career stage preceding the retirement (namely the *discontinuation phase*), only few models included it (e.g. Côté, 1999; Wylleman & Lavallee, 2003). During such phase, athletes usually reduce their participation in competitions at the level they had previously achieved, at the same time continue training. Because their focus is on concluding their athletic career and starting a new professional career, they redirect their life and perceive sport as a part of their life history (Alfermann & Stambulova, 2007).

The process of transitioning out of competitive sport can have a relatively long duration (Wylleman, Alfermann & Lavallee, 2004), and it is characterized by some problematic aspects.

First, individuals who identify strongly with the athlete role may experience identity difficulties (Lally, 2007). During the discontinuation phase, individuals foresee a time following retirement when their identities would be suspended between their athlete selves and new selves: they will lose their status, be barred from their peer group, reduce their physical commitment. In order to smooth this process, some athletes can engage in forms of “phased retirement” (Inkson, Richardson & Houkamau, 2013), intended as formal and informal employment arrangements aimed at reducing the individual workload while allowing the player to continue to contribute to the team, or they can decide to close their career with a “bridge employment” (Greller & Simpson, 1999), hence signing a short-term contract aimed at transitioning to the retirement. Whichever the chosen alternative would be, studies consistently demonstrated a positive but decreasing impact of player age on salary (Frick, 2007), hence suggesting that the late career arrangements are, on average, scarcely profitable. Together with a decrease in their economic status, older athletes must face a change in the professional goals due to the ageing process (Salmela-Aro, 2009). Indeed, during the discontinuation phase, the individuals have fewer opportunities to achieve top athletic goals (Heckhausen, Wrosch & Schulz, 2010). For instance, as showed in soccer by Fry, Galanos and Posso (2014) in an analysis of a top Champions League goals scorers from 1991 to 2011, the relationship between the age of the player and the goals scored in match has a reverse U-shape: as a player gets older he becomes more technical and accustomed to playing high level football, however his physical capacity decreases. Schulz and Heckhausen (1996) described this process in their “life span theory of control”, suggesting that as the age increases, individuals progressively lose their primary control over the environment (i.e. changing the world to bring the environment into line with one’s wishes) hence being forced to adapt their goals to external contingencies. Therefore, individuals will more likely avoid devoting their effort to career goals where major gains are no longer attainable, while engaging in goals

where the attainment opportunities are favourable.

Superstar players

According to a recent article published in Forbes (May 7, 2014), Cristiano Ronaldo is the highest-paid soccer player for the 2013 having earned a salary of USD 49 million, which is about forty times the average pay of a player in the soccer league (the Spanish La Liga) where he plays. Why does Cristiano Ronaldo earn such a disproportionately high salary? The answer to this question represent the core of the “superstar phenomenon”, which is defined by Rosen to be one “wherein relatively small numbers of people earn enormous amounts of money and dominate the activities in which they engage” (1981, p. 845).

In the literature, there are basically two competing—but not mutually exclusive—theories of superstar formation proposed by Rosen (1981) and Adler (1985).

According to Rosen (1981), extraordinary salaries earned by superstars are driven by a market equilibrium that rewards talented people with increasing returns to ability. In her works, the author shows how, for a restricted number of lyrics performers, even small differences in talent could lead to enormous differences in revenues, also because of the amplifying effect of technology. Therefore, superstars arise in markets in which the production technology allows for joint consumption and where a vast audience is reachable because of scale economies. Still in the music industry, Krueger (2005) demonstrates how uneven the revenue distribution is in the so called “Rockeconomy”, i.e. the market for rock concerts, where top 1% and 5% artists, respectively, escalated their share of total revenues from 26% and 62% in 1982, to 56% and 84% in 2003. Because poorer quality is only an imperfect substitute for higher quality, most people tend not to be satisfied with the performance of a less talented but cheaper player when they are able to enjoy a top performance, even if the costs are somewhat higher. As a consequence, small differences in talent among performers are magnified into large earnings differentials. For instance, in the sports market, analysing the revenues distribution in the Professional Golf Association (PGA), Scully (2002) demonstrated that despite an average of USD 658,000, top PGA performers reach the USD 9mil mark, which is roughly 2347 times more than what the worst performers.

A second interpretation of the superstar phenomenon is offered by Adler (1985), who analyses the role played by positive network externalities of popularity. Adler argues that the marginal utility of consuming a superstar service increases with the ability to appreciate it, which depends not only on the star’s talent, but also on the amount of star-specific knowledge the consumer has acquired. This specific knowledge—called consumption capital—is

accumulated through past consumption activities or by discussing the star's performance with likewise knowledgeable individuals. The latter effect gives rise to positive network externalities. For instance, Franck and Nüesch (2012) demonstrated that non performance-related popularity (measured in terms of number of articles mentioning the player's name) contributes to the market value differentials in the highest German soccer league.

But, what are the motivations for a team to pay a disproportionate salary to a superstar player? Superstars have superior skills (e.g., talent, experience in high-level competitions, knowledge of the most subtle facets of the game, guile) that can contribute to the team performance both sustaining field successes and offering learning opportunities to the other players in the team (Scully, 1989). Furthermore, because of their superstar status, they are internationally recognizable and their popularity attracts audience to both the team and the league in which they play in (Hausman & Leonard, 1997).

Given the peculiarities of the superstar phenomenon, we are then interested in analysing to what extent the late career of such players fits the characteristics of the "discontinuation phase" depicted in the previous paragraph. Or rather, whether their status influences their career opportunities opening alternative avenues to their late career.

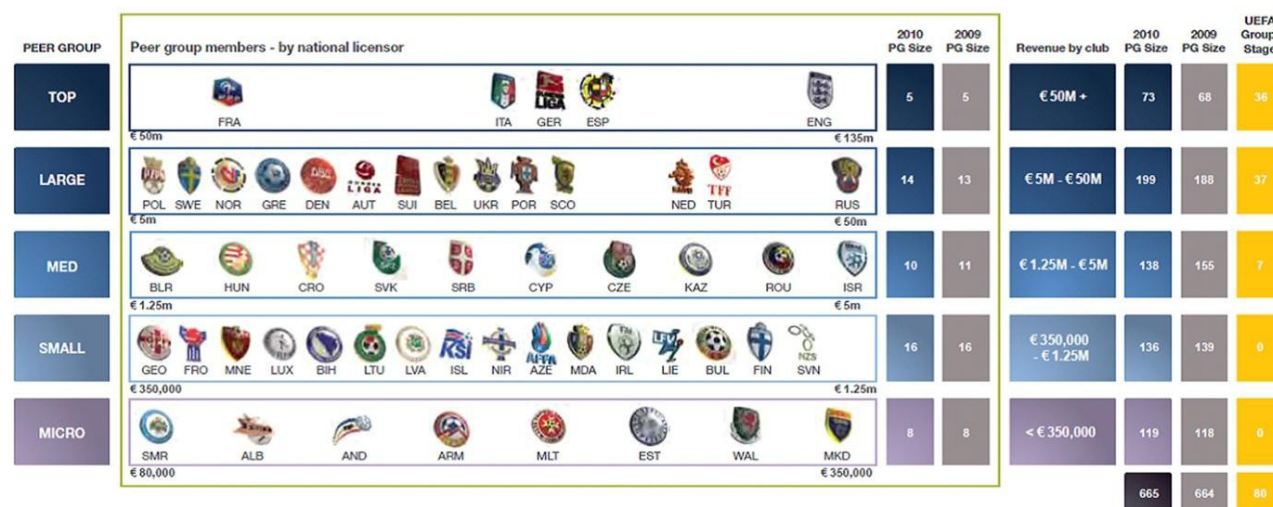
Methodology

In our quest for superstar players, we decided to focus on the four most important European soccer leagues in terms of total revenues: Italy, Germany, Spain, and England.

The data source is UEFA's "The European Club Footballing Landscape" (2011) (see Figure 1). According to UEFA's documents, in Europe there are 53 leagues, encompassing 665 teams in total. Only the leagues composed by teams that, on average, have more than €50mil/year in revenues are classified as "Top" leagues, and among those, the top four leagues more than double that mark, with revenues exceeding €100mil/year per club.

Within the selected leagues, we identified 5865 players, with a salary dispersion ranging from Cristiano Ronaldo's €13mil/year, to the minimum wage of €30.000/year, as decided by the players' union. On average, the annual player salary is about €1.18mil/year. Such dispersion can be found within teams, as well, since England's Manchester City has an annual payroll of €127mil/year, whilst Italy's Brescia and Cesena spend about €6mil/year.

Figure 1 - The European soccer leagues (Source: UEFA, The European Club Footballing Landscape, 2011)



In order to control if the wealthiest leagues are the also the most relevant from a sport results standpoint, we kept track of the winners of the two most important European competitions, the UEFA Champions League (just Champions League from now on), and the UEFA Europa League (Europa League from now on) over the period 2007-2013 (Table 1). 11 of the 14 winners come from one of the four wealthiest leagues, and to find an international victory by French team we have to go back to Paris Saint Germans' success in 1996 UEFA Cup Winners' Cup, or to 1993 Olympique de Marseille's triumph in the first edition of the Champions League.

Table 1 - European leagues' winners (2008-2013) (Source: UEFA)

	UEFA CHAMPIONS LEAGUE WINNER	HOME COUNTRY	UEFA EUROPA LEAGUE WINNER	HOME COUNTRY
2012/13	Bayern Monaco	Germany	Chelsea	England
2011/12	Chelsea	England	Atletico Madrid	Spain
2010/11	Barcelona	Spain	Porto	Portugal
2009/10	Inter	Italy	Atletico Madrid	Spain
2008/09	Barcelona	Spain	Shakhtar Donetsk	Ukraine
2007/08	Manchester United	England	Zenit	Russia
2006/07	Milan	Italy	Sevilla	Spain

Finally, as a further control, we selected the top 50 teams according to UEFA ranking, and added their respective coefficients (for all the available years, i.e. from 2009/2010 thru 2013/2014) according to their nationality. The results are shown in Table 2. Also in this case, the top national leagues are, respectively, Spain, England, Italy, and Germany.

Table 2 - Top European leagues as a sum of clubs' UEFA coefficients (Source: UEFA)

<i>Nation</i>	<i>Sum of UEFA clubs' coefficients</i>
<i>ESP</i>	692.422
<i>ENG</i>	627.265
<i>ITA</i>	467.919
<i>GER</i>	417.556
<i>FRA</i>	353.742
<i>RUS</i>	235.683
<i>POR</i>	232.948
<i>NED</i>	228.498
<i>BEL</i>	58.949
<i>AUT</i>	45.949
<i>SUI</i>	52.959
<i>UKR</i>	189.726
<i>GRE</i>	61.387
<i>TUR</i>	55.340
<i>DEN</i>	71.042

In Appendix we present see the overview of the main indicator for the selected leagues.

We then proceeded in collecting data for any of the 5865 players that played during the observation period. The variables include:

- Salary (net), irrelevant of performance-related prizes, image rights agreements, and other tangible or intangible emoluments (housing, means of transport, etc)
- Minutes played, weighted. Extra times are accounted for, but for uniformity's sake we decided to exclude:
 - National competitions (Coppa Italia, FA Cup, DB Pokal, Copa del Rey, Capital One Cup)
 - National "Supercups" (i.e. matches between winners of different national competitions)
 - International competitions (Intertoto Cup, Europa League, Champions League, UEFA Supercup, FIFA Club World Cup)
 - Tie-breaker matches for relegation or promotion, present in Bundesliga since the 2009/2010 season
 - The need to weight the playing time comes from the smaller number of teams playing the Bundesliga, just 18, compared to other leagues' 20
- Age, what was calculated according to the solar year of birth, instead of to the age at the beginning of the official UEFA season, not to discriminate between players born before and after July, 1st. For example, despite his month of birth, a player born in

1982 was listed as 30 years old at the beginning of the 2012-2013 season.

- Nationality, including by birth and any other citizenship acquired thereafter
- Expiry date of the current contract, calculated in years, and conventionally set at June 30th of that year.

Just for the players composing the final sample (see next paragraph), we collected further information:

- Number of national trophies won: championships, national cups, league cups, national supercups;
- Number of international trophies won: Champions league, Europa League, European Supercup, other international trophies equivalent to UEFA tournaments, FIFA Club World Cup);
- Number of trophies won with the national team: FIFA World Cup, Continental Championships, Confederations Cup, Olympics. Juvenile or youth tournaments were not considered;
- Number of games played with the national team;
- International event year: we kept track of any major international event during the year of observation
- Number of previous teams, excluding current team
- Team's UEFA ranking
- Δ player salary (compared to previous year's salary)

Our primary data source was the website www.fussballtransfert.com. Since it was almost impossible to obtain official data, which are extremely hard to obtain for such a large number of players, we run a reliability test comparing the data with the one published annually by the Italian most important sports newspaper, "La Gazzetta dello Sport". As we can see in Table 3, on average the two sources of data differ by 4.06%. Furthermore, we run a Kolmogorov-Smirnov test to compare the two distributions, looking for differences in between the two sets of data.

Table 3 - Comparison between Gazzetta dello Sport and Fussball-transfert (values in € millions)

	<i>Gazzetta dello sport*</i>	<i>Fussball-transfert*</i>	<i>Difference</i>	<i>Difference %</i>
<i>2008/09</i>	425.17	432.06	6.89	1.62
<i>2009/10</i>	449.19	467.47	18.28	4.07
<i>2010/11</i>	447.41	475.03	27.61	6.17
<i>2011/12</i>	432.35	448.56	16.21	3.75
<i>2012/13</i>	339.48	417.14	17.66	4.67
<i>Total</i>	2153.61	2240.26	86.65	4.06

The results, shown in Table 4, confirm the overall fit of the two distributions.

Table 4 - Kolmogorov-Smirnov test results

	<i>Gazzetta dello Sport</i>	<i>Fussball-transfert</i>
<i>Normal Parameters a.b</i>	N	2627
	Mean	.8253
	Std. Deviation	1.07193
<i>Most Extreme Differences</i>	Absolute	.259
	Positive	.259
	Negative	-.229
<i>Kolmogorov-Smirnov Z</i>		13.271
	<i>Asymp. Sig. (2-tailed)</i>	.000

The sample

Since our aim is to explore superstars' late careers, we have first to define who is a "superstar" in the world of professional soccer and then which is the transition moment to the discontinuation phase.

Despite a number of performance-related measures which tried to measure the "talent" factor identified by Rosen (1981) as the key element in order to explain the disproportionate salaries of superstar players (see for example Brown, Spiro & Keenan, 1991; Burdekin & Idson, 1991; Groothuis, Hill & Perri, 2009; Hausman & Leonard, 1997; Scott, Long & Somppi, 1985), the lack of an unambiguous performance indicator and the variety of roles in soccer rendered this approach to identify superstars extremely difficult. We therefore followed Hakes and Turner (2009) example and defined as superstars the players belonging to the fifth quintile in salary distribution. Before drawing the final sample, we must be sure that the professional soccer market labor is indeed a superstar economy. In order to answer to this requisite, we calculated the Gini coefficient for the European soccer leagues. According to Scully (1995), in team sports the Gini coefficient is usually 0.27 (with 0 being an extremely homogenous distribution, and 1 an extremely inhomogeneous one), but in PGA he found a Gini coefficient of 0.57 which indicates a strong superstar effect in salary distribution. As we can see in Table 5, over the observation period the average Gini coefficient was 0.53, extremely close to Scully's results, thus indicating that indeed we are facing a superstars economy.

Table 5 - Gini coefficient for the top 4 European soccer leagues

	SERIE A	EPL	BUNDESLIGA	LIGA	AVERAGE
2008/09	0.58	0.49	0.53	0.54	0.54
2009/10	0.54	0.50	0.53	0.57	0.54
2010/11	0.53	0.50	0.53	0.60	0.54
2011/12	0.52	0.50	0.50	0.59	0.53
2012/13	0.49	0.49	0.51	0.60	0.52
AVG.	0.53	0.50	0.52	0.58	0.53

Concerning the definition of the discontinuation phase, we were not able to find any specific evidence of the average sports longevity of soccer players, so we relied on similar studies about the careers of other athletes. According to Stambulova et al. (2007), an athlete's career is over after, on average, 15 years. Unfortunately, just 23 of the 157 subjects of that study played in team sports, thus making the conclusions hardly extendable to our context. In addition, different contributions disagree about the age at which an athlete's performance peaks (Hakes & Turner, 2009; Horowitz & Zappe, 1998; Stambulova et al., 2007), an additional indicator that team and non-team based sports, as well as contact (such as American football) and non-contact sports (such as tennis) may differ severely in terms of athletic and psychological requirements and wear. The contribution that was closest to our need, and was eventually used as a blueprint, is a hazard rate-based study by Groothuis and Hill (2004), that found out that superstar National Basketball Association athletes peak at age 27, have an average career of 14 years and retire at 35 (given an average age at draft of 21). We therefore calculated the average length of the contracts signed by our players during the observation period, which turned out to be 3 years, and therefore decided to focus on players that were 32 or older during the observation period.

The result is as shown in Table 6, giving us a population of 348 players.

Table 6 - Superstar players that turned 32 during the observation period

	Serie A	EPL	Bundesliga	Liga	Total
2008/09	35	12	10	11	68
2009/10	28	16	14	16	74
2010/11	28	12	15	14	69
2011/12	32	21	13	11	77
2012/13	26	14	11	9	60
Total	149	75	53	61	348

Among these, we selected all players that made a career-related decision, in terms of signing a new employment contract. The decision is articulated as follows:

- Change of team/league. This decision is further articulated as: within the same league, within one of the top 4 leagues, in other leagues
- Salary. Any salary change beyond €0.18mil, which is the threshold often used by team to spread salary over several contract years, looking for fiscal benefits
- Contract expiry date. Of course no variation was registered if, for example, expiry date was 3 years late at t0, and 2 years later at t1.

Finally, we excluded those players that retired from professional soccer within the 2nd year of the observation period. Our final sample is therefore composed by 192 players.

Results

We conducted a K-means cluster analysis, in order to identify a typology of players' late career. The descriptive statistics of the variable used for clustering are shown in Table 7.

Table 7 - Descriptive statistics (n=192). Standardized variables. 1=new contract/new team

	Minimum	Maximum	Mean	Std. Deviation	Variance
Salary (old team)	1	10	3.17	1.482	2.198
Minutes old team (weighted)	0.0000	1.0000	.464337	.2806231	.079
Uefa rank old team	1	155	32.52	43.628	1903.424
Old contract expiry date	1	5	1.58	.775	.601
Salary (new team)	.17	8.85	2.4991	1.65937	2.754
Minutes new team (weighted)	0.0000	1.0000	.458647	.2747960	.076
Uefa rank new team	1	256	61.98	61.010	3722.173
New contract expiry date	1	4	1.52	.738	.544
Valid N (listwise)					

Our results are shown in Table 8 show three clusters of players:

- Cluster 1 (n = 35) includes players that are willing to sacrifice a great deal of their previous salary in order to compensate for the decrease of the Uefa rank, that seems to affect most players in our sample. On average, within the sample the Uefa rank of the new team is twice as low as the previous one. Players in Cluster 1 show significant and strong deviation from the sample average, both in terms of salary (strong decrease, whereas the average shows a modest decline) and of Uefa Rank (which increases, contrarily to the other two clusters), that basically compensate the average decline of the sample. They do not differ from the sample average under the other two dimensions.
- Cluster 2 (n = 48) players suffer a decrease in salary similar to the sample average (21%), but are very active in seeking longer contracts. The incoming team has a considerably lower Uefa rank than the one they left. At the same time, the minutes played seem to increase, maybe showing the increased role of the “status” of the player within the new team.
- Cluster 3 (n = 109) is the most populous. Is composed by players that seem to leverage their fame in order to obtain a last, relatively short but lucrative contract. In exchange, they seem to be willing to accept a conspicuous drop in the prestige of the incoming team, and the minutes they play are limited.

Table 8 - Final cluster results. Distance form cluster centers

	Cluster		
	1	2	3
Variation in salary	-.79913	.09513	.22749
New contract lenght	-.00038	.99627	-.48950
Variation in Uefa Rank	-1.67454	.24336	.47584
Variation in minutes played (weigthed)	.11070	.67529	-.37375

We run additional post-hoc analysis, in order to identify differences among clusters along personal characteristics of the players (Table 9).

Table 9 – Post-hoc Anova tests (only statistically significant coefficient are shown)

Quantitative variables	Mean difference
Age	No diff
Number of previous teams	No diff
N. of national trophies won	No diff
N. of international trophies won	No diff
N. of trophies won with the national team	No diff
N. of games played with the national team	No diff
Total career payroll	No diff
Qualitative variables	
At least one national trophy won	Cl1 – Cl3 = -3.217*
At least one international trophy won	Cl1 – Cl3 = -.92631*
At least one trophy won with the national team	No diff
Same incoming and outgoing leagues	No diff
World Cup year	No diff
Confederations Cup year	No diff
Other federation cup year	No diff

Our ANOVA results show significance for just two of the qualitative variables (Games–Howell test), namely Number of national trophies won and Number of international trophies won. In both cases, Cluster 1 players won considerably more trophies than Cluster 3 players did. As for the quantitative variables, the Crosstabs analyses did not show any significant difference among clusters, as demonstrated by the Chi-squared values.

Discussion and conclusions

The aim of this paper was to explore the late career of superstar players in order to verify to what extent their “superstar status” brings them to deviate from the trajectories depicted by the descriptive models of athletic career. The results of our analysis, conducted on a sample of superstar soccer players competing in the four major European leagues, offer interesting insights for both the sport management and the career literature.

Firstly, our findings suggest that within the group of the older superstar players not all of them follow the same late career trajectory. And that such trajectories are only marginally

affected by the players' athletic and professional background. This simple finding supports an approach to the career decision-making where the agent (and not the structure in which he is embedded) is more relevant in determining his/her professional development. Therefore, as suggested by Drahotka and Eitzen (1998), even if on average superstar players may benefit of more job opportunities compared with non-superstar players, because their fame makes them "marketable" for their public relations value, they can exploit such opportunities in different ways according to their motivations (Park, Tod & Lavalley, 2012) and their image of the retirement (Torregrosa et al., 2004). In these terms, this result suggests that they can benefit of an extended primary control over their professional environment (as in Schulz and Heckhausen (1996) model) compared with non-superstar players. In our analysis, we do not have information about the individual decision-making process, but further studies may analyse such aspects in order to verify to what extent superstar players differ from "regular" athletes.

Our findings offer a clear picture of three distinct disengagement trajectories.

The majority of the sample (Cluster 3) follows a trajectory that we may label as "profit-oriented". Leveraging their "superstar status" they sign short-term contracts with low-tier teams in order to preserve their economic wealth. The newspapers frequently report stories of former soccer champions who sign short-term contracts in rich developing leagues, such as China and Saudi Arabia. These individuals clearly sacrifice their sport-related aspirations in order to maximize the return of their prestigious professional past.

An opposite trajectory is instead pursued by the players included in Cluster 1, that we may label as "win oriented". Less interested in maintaining their economic status, such players accept a significant pay cut in order to sign a contract with a prestigious team, where they can continue to compete in high-tier leagues and international competitions, therefore preserving their superstar status. Probably due to healthy physical conditions, they continue to play the same amount of minutes as during the previous contract. Furthermore, the new contract is comparable with the previous one in terms of length.

The third group (Cluster 2) is composed by "play-oriented" individuals. Such players partially exploit their superstar status signing a contract with less ranked teams, where they can benefit of a limited salary reduction. At the same time, though, even if the aging process reduces their athletic performance, they sign longer-term contracts (compared with the players in the other clusters), therefore preserving their athletic identity.

As a whole, the three clusters resemble the classical dialectic between profit and utility maximization which characterizes the sport management literature with reference to the

strategies of professional sports teams. Rottenberg (1965) explains the profit-orientation in this way (p. 252): “Representatives of organized baseball often say that the owners are interested more in providing opportunities for wholesome sport than they are in turning a profit”, but concludes that “It seems unlikely that people will subject capital of this magnitude to large risk of loss for the pure joy of association with the game.” In Rottenberg’s view, “A team will seek to maximize the difference between its revenue and its costs” (p. 255), no matter if this is achieved by combining players of higher or lower level than its rivals. In this approach, sports teams are thus completely rationale, profit-seeking actors. Such view is contrasted by Sloane (1971), according to whom “It is quite apparent that directors and shareholders invest money in football clubs not because of expectations of pecuniary income but for such psychological reasons as the urge for power, the desire for prestige” (p. 134). Soccer clubs are no longer listed as profit-maximizing entities, but rather as utility maximizers, with utility being defined as a complex, multifaceted variable including (in an unpredictable balance) wins, attendance, level of interest in the league, financial sustainability, ego, and so on.

Starting from our findings, we suggest an extension of this dichotomy to the superstars’ late career strategies. On the one side, indeed, Cluster 3 players appear attracted to join a team because of the salary they may obtain, consequently satisfying their profit maximization goal. On the other side, Cluster 1 and Cluster 2 individuals appear attracted by goals (e.g. the opportunity to win championships or to compete in top leagues, for the former, and the opportunity to continue to play and to extend their career, for the latter) that are different from the salary.

References

- Adler, M. (1985). Stardom and talent. *The American Economic Review*, 75(1), 208-212.
- Alfermann, D., & Stambulova, N. (2007). Career transitions and career termination. In Tenenbaum, G. and Eklund, R. (Eds). *Handbook of Sport Psychology* (pp. 712-733). Hoboken, NJ: John Wiley & Sons, Inc.
- Brown, E., Spiro, R., & Keenan, D. (1991). Wage and non-wage discrimination in professional basketball: Do fans affect it? *American Journal of Economics and Sociology*, 50(3), 333–345.
- Burdekin, R. C. K., & Idson, T. L. (1991). Customer preferences , attendance and the racial structure of professional basketball teams. *Applied Economics*, 23(1), 179–186.
- Cecić Erpič, S., Wylleman, P., & Zupančič, M. (2004). The effect of athletic and non-athletic factors on the sports career termination process. *Psychology of Sport and Exercise*, 5(1), 45-59.

- Côté, J. (1999). The influence of the family in the development of talent in sport. *The Sport Psychologist*, 13(4), 395-417.
- Dietl, H. M., Grossmann, M., & Lang, M. (2011). Competitive balance and revenue sharing in sports leagues with utility-maximizing teams. *Journal of Sports Economics*, 12(3), 284-308.
- Drahota, J. A. T., & Eitzen, D. S. (1998). The Role Exit of Professional Athletes. *Sociology of Sport Journal*, 15(3), 263-278.
- Forrier, A., Sels, L., & Stynen, D. (2009). Career mobility at the intersection between agent and structure: A conceptual model. *Journal of Occupational and Organizational Psychology*, 82(4), 739-759.
- Franck, E., & Nüesch, S. (2012). Talent and/or Popularity: What does it take to be a Superstar?. *Economic Inquiry*, 50(1), 202-216.
- Frick, B. (2007). The football players' labor market: Empirical evidence from the major European leagues. *Scottish Journal of Political Economy*, 54(3), 422-446.
- Fry, T. R., Galanos, G., & Posso, A. (2014). Let's Get Messi? Top-Scorer Productivity in the European Champions League. *Scottish Journal of Political Economy*. DOI: 10.1111/sjpe.12044
- Greller, M. M., & Simpson, P. (1999). In search of late career: A review of contemporary social science research applicable to the understanding of late career. *Human Resource Management Review*, 9(3), 309-347.
- Groothuis, P. A., & Hill, J. R. (2004). Exit Discrimination in the NBA: A Duration Analysis of Career Length. *Economic Inquiry*, 42(2), 341-349.
- Groothuis, P. A., Hill, J. R., & Perri, T. (2009). The dilemma of choosing talent: Michael Jordans are hard to find. *Applied Economics*, 41(25), 3193-3198.
- Hakes, J. K., & Turner, C. (2009). Pay, Productivity and Aging in Major League Baseball. *Journal of Productivity Analysis*, 35(1), 61-74.
- Hausman, J. A., & Leonard, G. K. (1997). Superstars in the National Basketball Association: Economic value and policy. *Journal of Labor Economics*, 15(4), 586-624.
- Heckhausen, J., Wrosch, C., & Schulz, R. (2010). A motivational theory of life-span development. *Psychological Review*, 117(1), 32.
- Horowitz, I., & Zappe, C. (1998). Thanks for the memories: baseball veterans' end-of-career salaries. *Managerial and Decision Economics*, 19(6), 377-382.
- Inkson, K., Richardson, M., & Houkamau, C. (2013). New patterns of late career employment. In Field, J., Burke, R., & Cooper, C. (Eds), *The SAGE Handbook of Aging, Work and Society*. Thousand Oaks, CA: Sage.
- Krueger, A. B. (2005). The economics of real superstars: The market for rock concerts in the material world. *Journal of Labor Economics*, 23(1), 1-30.
- Lally, P. (2007). Identity and athletic retirement: A prospective study. *Psychology of Sport and Exercise*, 8(1), 85-99.

- Levinson, D. J. (1986). A conception of adult development. *American Psychologist*, 41(1), 1-13.
- Park, S., Tod, D., & Lavalley, D. (2012). Exploring the retirement from sport decision-making process based on the transtheoretical model. *Psychology of Sport and Exercise*, 13(4), 444-453.
- Rosen, S. (1981). The Economics of Superstars. *The American Economic Review*, 71(5), 845–858.
- Rottenberg, S. (1956). The baseball players' labor market. *The Journal of Political Economy*, 64(3), 242-258.
- Salmela-Aro, K. (2009). Personal goals and well-being during critical life transitions: The four C's—Channelling, choice, co-agency and compensation. *Advances in Life Course Research*, 14(1), 63-73.
- Schulz, R., & Heckhausen, J. (1996). A life span model of successful aging. *American Psychologist*, 51(7), 702.
- Scott, F. A. J., Long, J. E., & Somppi, K. (1985). Salary Vs . Marginal Revenue Product Under Monopsony and Competition : The Case of Professional Basketball. *Atlantic Economic Journal*, 13(3), 50–59.
- Scully W. G. (1989). *The Business of Major League Baseball*. Chicago: University of Chicago Press.
- Scully, G. W. (1995). *The market structure of sports*. Chicago: University of Chicago Press.
- Scully, G. W. (2002). The Distribution of Performance and Earnings in a Prize Economy. *Journal of Sports Economics*, 3(3), 235–245.
- Stambulova, N. (1994). Developmental sports career investigations in Russia: A post-perestroika analysis. *The Sport Psychologist*, 8(3), 221-237.
- Stambulova, N., Alfermann, D., Statler, T., & Côté, J. (2009). ISSP position stand: Career development and transitions of athletes. *International Journal of Sport and Exercise Psychology*, 7(4), 395-412.
- Stambulova, N., Stephan, Y., & Jäphag, U. (2007). Athletic retirement: A cross-national comparison of elite French and Swedish athletes. *Psychology of Sport and Exercise*, 8(1), 101-118.
- Super, D. E. (1980). A life-span, life-space approach to career development. *Journal of Vocational Behavior*, 16(3), 282-298.
- Torregrosa, M., Boixadós, M., Valiente, L., & Cruz, J. (2004). Elite athletes' image of retirement: The way to relocation in sport. *Psychology of Sport and Exercise*, 5(1), 35-43.
- Wylleman, P., Alfermann, D., & Lavalley, D. (2004). Career transitions in sport: European perspectives. *Psychology of Sport and Exercise*, 5(1), 7-20.
- Wylleman, P., & Lavalley, D. (2003). A developmental perspective on transitions faced by athletes. In M. Weiss (Ed.), *Developmental sport psychology* (pp. 507-527). Morgantown, WV: Fitness Information Technology.

Appendix - Data summary of the selected leagues (values in € millions)

	2008/09	2009/10	2010/11	2011/12	2012/13	Total (5 seasons)						
S r i e A	Total annual salaries	432.06	Total annual salaries	467.47	Total annual salaries	475.03	Total annual salaries	448.56	Total annual salaries	417.14	Total Payroll	2240.26
	Average annual Salary	0.75	Average annual Salary	0.90	Average annual Salary	0.93	Average annual Salary	0.84	Average annual Salary	0.78	Average Player Salary	0.84
	Average Player Age	26.38	Average Player Age	27.00	Average Player Age	27.16	Average Player Age	27.09	Average Player Age	26.66	Average Player Age	26.86
	Average Annual Payroll	21.60	Average Annual Payroll	23.37	Average Annual Payroll	23.75	Average Annual Payroll	22.43	Average Annual Payroll	20.86	Average Annual Payroll	22.40
E P L	Total annual salaries	1498.24	Total annual salaries	1663.93	Total annual salaries	1833.09	Total annual salaries	1896.66	Total annual salaries	1844.64	Total Payroll	8736.56
	Average annual Salary	1.38	Average annual Salary	1.51	Average annual Salary	1.72	Average annual Salary	1.80	Average annual Salary	1.91	Average Player Salary	1.66
	Average Player Age	25.58	Average Player Age	25.76	Average Player Age	25.66	Average Player Age	25.70	Average Player Age	25.75	Average Player Age	25.69
	Average Annual Payroll	74.91	Average Annual Payroll	83.20	Average Annual Payroll	91.65	Average Annual Payroll	94.83	Average Annual Payroll	92.23	Average Annual Payroll	87.37
B u n d e s	Total annual salaries	1077.31	Total annual salaries	1107.33	Total annual salaries	1094.14	Total annual salaries	1164.45	Total annual salaries	1273.38	Total Payroll	5716.61
	Average annual Salary	1.04	Average annual Salary	1.01	Average annual Salary	1.05	Average annual Salary	1.13	Average annual Salary	1.42	Average Player Salary	1.13
	Average Player Age	25.53	Average Player Age	25.06	Average Player Age	25.01	Average Player Age	24.95	Average Player Age	24.86	Average Player Age	25.08
	Average Annual Payroll	59.85	Average Annual Payroll	61.52	Average Annual Payroll	60.79	Average Annual Payroll	64.69	Average Annual Payroll	70.74	Average Annual Payroll	63.52
L i g a	Total annual salaries	1185.19	Total annual salaries	1269.33	Total annual salaries	1316.89	Total annual salaries	1311.11	Total annual salaries	1315.26	Total Payroll	6397.78
	Average annual Salary	0.93	Average annual Salary	1.10	Average annual Salary	1.10	Average annual Salary	1.16	Average annual Salary	1.19	Average Player Salary	1.10
	Average Player Age	26.31	Average Player Age	25.50	Average Player Age	26.50	Average Player Age	25.53	Average Player Age	25.69	Average Player Age	25.91
	Average Annual Payroll	59.26	Average Annual Payroll	63.47	Average Annual Payroll	65.84	Average Annual Payroll	65.56	Average Annual Payroll	65.76	Average Annual Payroll	63.98
T o t o j	Total annual salaries	4192.80	Total annual salaries	4508.06	Total annual salaries	4719.14	Total annual salaries	4820.78	Total annual salaries	4850.42	Total Payroll	23091.20
	Average annual Salary	1.03	Average annual Salary	1.13	Average annual Salary	1.20	Average annual Salary	1.23	Average annual Salary	1.33	Average Player Salary	1.18
	Average Player Age	25.95	Average Player Age	25.83	Average Player Age	26.08	Average Player Age	25.82	Average Player Age	25.74	Average Player Age	25.88
	Average Annual Payroll	53.91	Average Annual Payroll	57.89	Average Annual Payroll	60.51	Average Annual Payroll	61.88	Average Annual Payroll	62.40	Average Annual Payroll	59.32