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Abstract

Basketball is one of the most practised sports in the world, especially in America. America has the most famous professional basketball league, the National Basketball Association (NBA). This study examines whether there is a relationship between the physical constitution of professional basketball players and their athletic performance in the 2015/16 NBA season. Regression results show that the relative wingspan influences the athletic performance in a significantly positive way whereas the vertical jumping ability influences it in a significantly negative way. Furthermore, age follows an inverted U-shape with a maximum at 28 years. Moreover, this study analyses the impact of on-court performance measurements and personal characteristics on salary for NBA players. Taller players have a higher salary in the 2015/16 NBA season.

JEL-Codes: J24, J31, J49, J71, M12, Z22

Die physische Konstitution ist relevant für die sportliche Leistung und das Gehalt von NBA Spielern

Zusammenfassung

Basketball ist eine der am meisten praktizierten Sportarten der Welt, insbesondere in den USA. Die USA haben die berühmteste professionelle Basketballliga, die *National Basketball Association* (NBA). Diese Studie untersucht, ob es einen Zusammenhang gibt zwischen der physischen Konstitution von professionellen Basketballspieler und ihrer sportlichen Leistung in der Saison 2015/16 der NBA. Regressionsergebnisse zeigen, dass die relative Armspannweite die sportliche Leistung in signifikant positiver Weise beeinfusst, während die vertikale Sprungfähigkeit einen signifikant negativen Einfluss ausübt. Außerdem hat das Alter einen invers U-förmigen Effekt mit einem Maximum bei 28 Jahren.Weiterhin untersucht diese Studie den Einfluss von Leistungsmaßen im Spiel und persönlichen Eigenschaften auf das Gehalt von NBA Spielern. Größere Spieler haben ein höheres Gehalt in der NBA-Saison 2015/16.

Im Internet unter:

http://www.wiwi.uni-muenster.de/io/forschen/downloads/DP-IO_01_2017

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Physical Constitution Matters for Athletic Performance and Salary of NBA Players*

1. Introduction

The most famous basketball coach of all times, Boston Celtics' Arnold Jacob "Red" Auerbach once said: "You can't teach height". What he means is that in professional basketball the players might be talented, work incredibly hard and yet, if basketball players are only 1.68 meters tall they have a disadvantage against the 2.04 meters average National Basketball Association (NBA) player. The NBA is the professional basketball league in North America, and is widely considered to be the best men's professional basketball league in the world. Therefore, the aim of successful basketball players or those who aspire to become one is to play for one of the 30 teams in the NBA. In order to participate in a tendering procedure of a NBA team, basketball players have to show primarily good athletic performance in early years. If the basketball player's athletic performance is convincing and promising, the probability to become a NBA team member increases. However, as Auerbach noted, it seems that athletic performance is not the only benchmark to be selected for a NBA team. In basketball, physical constitution might be a characteristic that influences the athletic performance and consequently the probability of being selected for a NBA team in a positive way. The league's median height of NBA players is approximately 2.04 meters. In comparison, the league's median height of basketball players in the German Basketball League (Easy Credit BBL) is approximately 1.96 meters. Thus, NBA basketball players are on average taller than other players. Because of the highest performance of NBA players and because of the larger average height in comparison to other basketball leagues, the question arises if amongst others body height is one determinant that influences the athletic performance in a positive direction. For example, Mark Eaton, a NBA player with a body height about 2.25 meters earned the title of the best shot blocker four times in his career. Eaton has always been known for his big defensive impact on the game although showing limited talent in terms of technique. Similar results can be found for Manute Bol (2.31 meters) and Shawn Bradley (2.29 meters). The NBA Defensive Player of the Year Award is an annual award given to the best defensive player of the regular season. In the last ten years, only two of the NBA Defensive Players of the Year are smaller than 2.06 meters. Consequently, tall basketball players have an advantage because of their body size. Certainly, it can be shown that tall basketball players also have advantages regard-

* I am very grateful to Prof. Dr. Alexander Dilger and Dr. Marco Bade for valuable suggestions and comments that noticeably improved this paper. I am alone responsible for any remaining errors.

ing the offense. For instance, Dirk Nowitzki (2.13 meters) and Kevin Durant (2.06 meters) are two NBA basketball players with a very high scoring average. In this respect, tall basketball players may also have an advantage on the offensive end. In addition to the body height, the standing reach, the wingspan, the hand span or the vertical jump ability are physical constitution that might influence the athletic performance, too.

Given these mentioned facts, the body height as a special physical characteristic might influences the athletic performance of basketball players in a positive way. One main object of investigation is to analyses empirically this possible relationship for NBA basketball players in the 2015/16 season. A second object of investigation of the present study is to identify determinants that influence the salary of NBA players. Salary can be considered as a proxy for career success (Judge et al., 1995; Whitely et al., 1991), and in the broadest sense as a proxy for good performance (Ng et al., 2005). Apart from the impact of on-court performance measurements like rebounds, turnovers or assists on the player's salary, the focus of the present research is on personal characteristics like the body height, too. Up to today, there is just one research paper dealing with the impact of personal characteristics on the player's salary. Thus, the present study should serve as a further contribution to this research field to clarify the relationship between physical constitutions and the player's salary in the NBA in the 2015/16 season.

2. Literature Review

In the literature, there are few studies analysing the relationship between physical constitution and professional athletes' performance. For instance, Ross et al. (2015) analyse the relationship between physical characteristics and game performance for rugby seven players. They show that correlation coefficients identify a variety of moderate and strong relationships between some physical measures and match activities. One result is that the body size strongly correlates with tackle scores and moderately correlates with defenders beaten. Another result is that the body weight is strongly correlated with the effective attacking ruck and moderately correlated with the effective defensive ruck. Therefore, both personal characteristics influence the game performance in a positive way. Bakkenbüll and Kiefer (2015) show that the performance of professional female tennis players significantly decreases with the body mass index (BMI). Moreover, the square of the BMI influences the athletic performance in a significantly positive way, meaning that the impact of BMI follows a U-shape. Consequently, small and lightweight tennis players as well as larger and heavier female tennis players have some ad-

vantages in terms of agility and mobility, or power and strength. Non-sport economic studies indicate a positive impact of body height on performance, leader effectiveness, and leader emergence (Hensley & Cooper, 1987; Roberts & Herman, 1986). However, the aforementioned relation is hardly explored with respect to NBA players. Hence, the purpose of the present study is to fill this gap by identifying factors that influence the game performance specifically for NBA players in the 2015/16 season.

Regarding the literary field dealing with the analysis of the link between on-court performance measurements and the salary of NBA players it can be noted that there are a few studies analysing this impact. Lyons et al. (2015) show that points per game, rebounds, and personal fouls have a significantly positive impact on the player's salary regarding 243 NBA players in the 2013/14 NBA season. Agesa et al. (2005) find similar results. The authors point out that rebounds, points per game, assist, and the experience of the NBA players in the 2001/02 season have a significantly positive impact on the player's salary, too. Sigler and Sackley (2000) show that the players salary is influenced by points per game and rebounds. Last, Li (2014) shows that points per game, offensive rebounds, assists, steals, and blocked shots influence the salary in a significantly positive way. In contrast to this, turnovers, personal fouls as well as missed points per game have a significantly negative impact on the salary. The findings of all four studies show that the player's salary is influenced by different on-court performance measurements. To the best of my knowledge, there is just one study that additionally analyses the link between physical characteristic measurements like the body height and the player's salary. Li (2014) shows that the body height influences the salary of NBA players in a significantly positive way in the contract year whereas the body weight has no significant impact on the salary. A non-sport economic study by Judge and Cable (2004) shows that in the labour market, body height has a significantly positive impact on earnings. Since the NBA can be considered as a labour market, the relation shown by Judge and Cable (2004) may also be valid for NBA players. Thus, the present study takes into account on-court performance measurements as well as physical characteristic measurements and the effect on the player's salary.

3. Dataset and Descriptive Statistics

The statistical benchmark to compare the performance and thus the value of professional athletes is their efficiency. In basketball, efficiency can best be measured by points, rebounds, assists, steals, blocks, turnovers and shooting percentages. One best-known performance

benchmark is John Hollinger's Player Efficiency Rating (PER). It is a rating of a player's per-minute productivity. PER accumulates all positive (e.g. assists, rebounds or blocks) as well as negative (e.g. missed shots, turnovers or personal fouls) statistics of a player to one figure that represents a player's impact on the game and individual productivity (Watave, 2016). Because of its per-minute characteristic, PER allows to compare the efficiency of regularly playing basketball players with those who play sporadically. Additionally, this benchmark controls for the team pace for each player. This means that there is no handicap for players on slow-paced teams with fewer possessions like the Detroit Pistons, compared to fast-paced teams such as the Golden State Warriors (Hollinger, 2011). Descriptive statistics in Table 1 show that the average PER is 13.43 for the 2015/16 NBA season. Useful for comparison, Hollinger sets the league average in PER to 15.00 every season. In the present dataset, the lowest PER value is -7.7 while the highest value is 33.08.

A further efficiency rating in the NBA is the Player Impact Estimate (PIE). It measures a player's overall statistical contribution against the total statistics in games they played in. The PIE compiles points, rebounds, blocks or missed free throws of a single player and weighs that number against the same stats generated by every player who played in the same game. The calculated percentage value for each player comprises the percentage of positive contributions attributable to the player in a one game. The average value in the 2015/16 season of PIE is 8.79 with a minimum value of -6.3, and a maximum value of 19.7.

Besides these two performance benchmarks, the dataset contains information about physical characteristics of the NBA players considered and the players' salaries. The data for the performance benchmarks in the 2015/16 season as well as the needed data of physical characteristics of each player and his salary were either taken from the official homepage of the NBA (www.stats.nba.com), ESPN (www.espn.com/nba) or from the homepage of DraftExpress (www.draftexpress.com). First of all, the analysis regarding the players' performance takes the players' age into account. Instead of the age one might include the number of seasons played in the NBA to measure the players' experience. However, note that some players enter the NBA after high-school while others enter the league after finishing college. Therefore, the age is a more precise value to measure experience. Moreover, some international players play several seasons in other leagues before playing in the NBA (Casals & Martinez, 2013). Descriptive statistics in Table 1 show that the basketball players considered are on average 27 years old with an age range from 19 to 40.

Regarding the physical characteristics, the descriptive statistics show that the average body height is 198.62 centimetres. The smallest basketball player is 172.06 centimetres, the tallest one is 220.98 centimetres. In addition to the age and the body height, the wingspan serves as another explanatory variable. To measure the wingspan of a basketball player, he stands straight with both arms fully extended out to his sides. The distance from fingertips to fingertips measures his wingspan. In the present dataset, players have on average a wingspan of 209.57 centimetres with the shortest wingspan of 179.71 centimetres and the longest wingspan of 235.59 centimetres. Standing reach as a second explanatory variable measures how high a basketball athlete can reach while standing flat-footed. In the present dataset, the average standing reach is 263.24 centimetres. The minimum is 227.33 centimetres while the maximum is 292.10 centimetres. A similar measure is the vertical jump reach that measures the highest point a player can touch when jumping. In the dataset the vertical jump reach is on average 337.94 centimetres with a minimum of 292.43 centimetres and a maximum of 361.70 centimetres. The variable vertical jump measures the distance between the floor and the player's shoes while jumping. Table 1 shows that the jumping power is on average 75.19 centimetres with a minimum of 48.26 centimetres and a maximum of 100.33 centimetres. Basketball is a type of sport where the hands are very important for ball handling and for ball control. So the question arises if the hand length and the hand width are essential for better athletic performance in basketball. Table 1 shows that on average, the NBA players in the present dataset have a hand length of 22.31 centimetres with a minimum of 18.42 centimetres and a maximum of 28.58 centimetres. Regarding the hand width, the descriptive statistics show that a player's hand has on average a size of 23.93 centimetres with a minimum of 17.78 centimetres and a maximum of 30.48 centimetres.

The last explanatory variable does not include a physical characteristic. Instead it measures whether the NBA player considered was drafted or not. The NBA draft is an event where NBA teams acquire the rights to negotiate with (young) players, either college basketball players or international players, who are eligible and wish to join the league. The draft includes two rounds with 30 picks in each round. The draft order is determined by the results of the previous season. The NBA champion picks a player at the end of each round. Draft positions 29 to 15 are allocated among teams that reached the play-offs on the basis the number of regular season wins. This means that the best team of the regular season which is not the NBA champion has the right to pick a player on position 29 while the worst team that reached the play-offs gets position number 15. The draft position of the 14 teams who were not qualified for the play-offs is determined by a draft lottery. The worst team has the best chances to

get the first pick, the so-called "first overall draft pick". Normally, the best players were drafted within the first ten picks. The draft variable is a dummy. One denotes that the considered player was drafted, otherwise the variable is zero. In the present dataset, 83 per cent of the players were drafted. Regarding the player's salary of the 2015/16 season, Table 1 shows that the average salary of NBA players at the 2015/16 season is $4.954.341. The lowest salary is $30.888, while the highest salary amounts to $25.000.000.

Variables	Description	Obs.	Mean	Min	Max
PER 2015_16	The Player Efficiency Rating (PER) strives to measure a player's per-minute performance, while adjusting for pace.	475	13.43	-7.7	33.08
PIE 2015_16	The Player Impact Estimate (PIE) calculates a player's impact on each individual game played.	475	8.79	-6.3	19.7
Age	Age	475	27.03	19	40
Height	Body height in cm	475	198.62	172.06	220.98
Wingspan	Wingspan in cm	395	209.57	179.71	235.59
Standing reach	Reach in cm	380	263.24	227.33	292.10
Vertical jump reach	Vertical jump reach in cm	326	337.94	292.43	361.70
Vertical jump ability	Vertical jump in cm	327	75.19	48.26	100.33
Hand length	Hand length in cm	213	22.31	18.42	28.58
Hand width	Hand width in cm	205	23.93	17.78	30.48
Drafted	If the player was drafted (1=yes)	475	0.83	0	1
Salary	Salary of the 2015/16 season in US $	389	4.954.341	30.888	25.000.000

Table 1: Variable definitions and descriptive statistics

4. Empirical Results and Discussion

One main object of investigation of this paper is to verify whether there is an impact of physical constitution on athletic performance and thus sporting success in the NBA. For this purpose, multiple regressions are used for two performance variables with some explanatory variables already explained in section 2. First of all, PIE is regressed against the age and its square to control for an (inverted) U-shaped relationship, the wingspan, the vertical jump ability and whether the player was drafted or not. Here, the wingspan, the standing reach, the vertical jump reach as well as the measurements of the hand have to be put in relation with the body height. Consequently, the quotients of the variables and the body height serve as

possible explanatory variables. Attention should be paid to the correlation between the single explanatory variables. Because of a high correlation between wingspan and standing reach (r=0.92), and between wingspan and vertical jump reach (r=0.84), the analyses do not consider all variables that are included in the descriptive statistics. Furthermore, variables that are not significant are deleted from the regression analyses. The regression results are presented in Table 2.

Explanatory Variables	**Dependent Variables**	
	PIE_2015/16	**PER_2015/16**
Age	2.296***	3.163***
	(3.72)	(3.48)
Age²	-.040***	-.056***
	(-3.65)	(-3.45)
Relative wingspan	15.192*	34.045***
	(2.20)	(3.34)
Vertical jump ability	-.070**	-.107**
	(-2.76)	(-2.87)
Drafted	1.860***	2.300**
	(3.21)	(2.69)
Constant	-35.333**	-59.693***
	(-3.09)	(-3.54)
Significance	.000	.000
Observations	324	324
R^2	.094	.097

Note. Variable definitions are provided in Table 1. $^{+}p<.10$; $*p<.05$; $**p<.01$; $***p<.001$. Displayed are the unstandardised coefficients, *t*-values in parentheses.

Table 2: Multiple regression results considering the impact of constitution measurements on performance measurements in the 2015/16 NBA season.

Regression results in Table 2 show that age influences the athletic performance in both models in a significantly positive way whereas its square has a significantly negative impact. Thus, age follows an inverted U-shape with maxima at 28.7 (model 1) and 28.2 years (model 2). A similar result is found by Berri et al. (2006). In their analysis, the performance peak of players is at the age of approximately 27 years. In contrast, Bradbury (2009) shows that this peak is a bit later for baseball players, that is, at the age between 29 and 30 years. The peak of round about 28 years can be explained as follows. Young players are on the one hand healthier, fitter, more agile, and more reactive. This increases athletic performance. On the other hand, they are less experienced. Moreover, they strive to show their individual skills which leads to worse teamwork and which harms the individual athletic performance because of more individual mistakes. However, the older the basketball player, the better is the combina-

tion of these factors together. This means that until a player reaches a certain age, the combination of fitness or reactivity and experience based on playing practice results in better athletic performance. Moreover, there are young players who are still tested while older players who are still in the NBA have proven their ability. However, above a certain age, the fitness declines substantially resulting in worse athletic performance regardless of the playing experience.

The regression results further show that the quotient of wingspan and height (relative wingspan) influences both performance measures in a significantly positive way. Thus, an increase of the relative wingspan induces an increase of the athletic performance measured by PIE or PER. Hence, basketball players with a larger relative wingspan, that is, players with long arms in relation to their body height, have a higher athletic performance in the present data set. One explanation why a larger relative wingspan is a highly-prized commodity for basketball players is that it allows players to "play taller" than they actually are. This is especially helpful on the defensive end with regard to blocking shots, rebounding, or reaching into passing lanes for steals. On the offensive end, the chance of the (smaller) defender to block a shot of a basketball player with a large wingspan is much more difficult. Furthermore, the likelihood to reach out and collect a high pass as well as to prevail under the basket to score increases for basketball players with a larger relative wingspan. Hence, being tall seems to be an advantage in the NBA, but having a large relative wingspan is the biggest advantage for a top-performer. Take, for example, Kevin Durant (small forward) who has been one of the best NBA basketball players ever since he entered the league. With his body height of 2.06 meters he does not rank among the tallest NBA players, but his wingspan of 2.26 meters gives him a huge advantage over most of his opponents at the small forward position. This is one major reason why he is one of the best basketball player in the NBA in terms of athletic performance.

Surprisingly, the vertical jump ability has a significantly negative impact on athletic performance. However, the explanation might be as follows. Basketball players can be divided into two categories, the group of athletic players with a high vertical jumping power and those with a very good playing technique. The more athletic players attract attention of scouts, coaches or managers by spectacular and better-looking playing style. They typically score by attacking the basket because of their advantage in terms of speed, quickness and jumping. Such players are often viewed as "raw diamonds" that just have to improve their basketball techniques. Indeed, their efficiency in terms of field goal percentage or turnovers suffers from their style of play. Take, for example, Kobe Bryant in the early stages of his career. In his

rookie season, the very athletic 18-year-old Bryant shot only 41.7 per cent from the field and committed 3.6 turnovers per 36 minutes (Basketball-Reference.com). As Bryant matured over his career, his efficiency improved dramatically and he became one of the best players of all time. In contrast, less athletic basketball players have a disadvantage by nature. To compensate this, such players need to gain other advantages, for example, by improving technically. As a result, less athletic players are often masters of basketball fundamentals, such as shooting, ball handling and passing. Thus, the significantly negative impact of vertical jump ability on athletic performance can be explained by the fact that key figures like game points, three-point field goals made or committing few turnovers are important components determining the performance measures (PIE and PER). More technically sound players perform better concerning the aforementioned key figures that influence performance measures in a positive way rather than more athletic players. Thus, athletic performance measured by PIE or PER decreases with the degree of athleticism in form of vertical jump ability. For example, Larry Bird, Steve Nash and Dirk Nowitzki are three of the best players of all time. Moreover, they are three of the seven members of the so called "50-40-90 club". The three players are not athletic but yet among the best scorers to ever play the game thanks to their ability to shoot and handle the basketball.

Regarding the last explanatory variable, the regression results show that being drafted has a significantly positive impact on both performance variables. Thus, NBA players that were drafted show higher athletic performances than those who were not. Here, Watave (2016) finds a positive relation between draft position and average player performance. Here, it would be interesting to further test whether the physical constitution influences the decision of managers to draft a player.

Two of the variables considered in the descriptive statistics are the hand length and the hand width. Both variables have no significant impact on the athletic performance of NBA players in the 2015/16 season. Consequently, they were excluded of the regressions. One possible explanation might be that basketball players should have a feeling for the ball and ball security for a good ball control and consequently good athletic performance. This ball control results from playing experiences and training rather than by hand measurements. In fact, having large hands may be an advantage in blocking shots or stealing the ball, but it may also be a disadvantage in shooting the basketball.

As the analyses show, there is a link between physical constitution and athletic performance of NBA players. Typically, a player's salary is calculated based on his performance. There-

fore, considering that performance increases with favourable physical characteristics resulting in higher salary, the second object of investigation of this paper is to analyse the impact of physical characteristics, in this case body height, on the salary of NBA players in the 2015/16 season. The results of the multiple regression analysis in Table 3 show that the body height has a significantly positive impact on the player's salary. The coefficient of body height shows that an increase of one point is associated with an increase of 4.1 percentage points in the salary. Thus, taller basketball players have a higher salary in the 2015/16 NBA season. A similar result is found by Li (2014). The author shows that the salary of NBA players increases by $0.17 million when the height increases by one inch.

Explanatory Variables	**Dependent Variables**
	LN_Salary
Minutes per Games	.022***
	(9.29)
True Shooting	.003
	(.41)
Assists	.024***
	(3.21)
Turnover	-.029*
	(-2.11)
Usage Percentage	.058***
	(5.09)
Offensive Rebound Percentage	-.003
	(-.13)
Defensive Rebound Percentage	-.009
	(-.69)
Body Height	.041***
	(4.60)
Constant	4.166*
	(2.33)
Significance	.000
Observations	389
R^2	.444

Note. $^{+}p<.10$; $*p<.05$; $**p<.01$; $***p<.001$. Displayed are the unstandardised coefficients, *t*-values in parentheses.

Table 3: Multiple regression results for the impact of on-court performance statistics and personal characteristic measurements on salary in the 2015/16 NBA season.

This result in combination with prefixed results concerning the impact of physical characteristics on athletic performance measurements indicate that taller NBA basketball players show higher athletic performance and have better chances to receive more lucrative contracts and thus higher salaries than smaller athletes.In addition to the impact of body height on the play-

er's salary, regression results in Table 3 show that some on-court performance statistics influence the player's salary in a significant way, too. First of all, minutes per game influences the salary in a significantly positive way. Casals and Martinez (2013) point out that minutes per game have a significantly positive impact on points scored. In turn, points in basketball can be considered as one major proxy for good performance resulting in higher salary. Thus, the impact of this variable to determine the salary is hardly surprising. Assists are a statistic awarded to a player who passes the ball to a teammate in a way that directly leads to a field goal. In the present dataset the impact of assists on salary is significantly positive, too. The explanation is as follows: First, assists directly increase performance measurements. Second, assists are an indicator for an unselfish style of playing. Such players share the ball which enhances team play, chemistry, and thus team performance. Executives or managers reward this with a higher salary for players who assist their teammates. Li (2014) shows that assists have a significantly positive impact on the player's salary, too. Moreover, the usage percentage has also a significantly positive impact on the players' salary. Usage percentage is an estimate of the percentage of team plays used by a player while he was on the floor. The significantly positive impact might be explained as follows: When a player initiates many offensive moves, that is, he has a high USG, this indicates that he is very active, confident, and that he enjoys the teammates' trust to handle the offense. By this he may add sustainable value for the team and thus result in higher salary. The last on-court performance measurement is the turnover. A turnover occurs when a team loses possession of the ball to the opposing team before a player takes a shot. In the analysis, this on-court measurement influences the salary in a significantly negative way.

5. Summary and Further Research

The present study is the first to identify the relationship between physical constitution and athletic performance in the NBA. For this purpose, the athletic performance of NBA players in the 2015/16 season is analysed with respect to physical characteristics like the wingspan, the standing reach, the vertical jump ability or simply the age. In order to measure the athletic performance, PIE and PER are used. Both measures contain key figures like, for example, points, assists, rebounds or missed shots. In comparison to PIE, PER has a per-minute characteristic that allows to compare the efficiency of regularly played basketball players with those who played sporadically. Thus, PER seems to be more reliable. The regression results in section 4 show that age follows an inverted U-shape with a maximum at round about 28 years. Furthermore, the wingspan and similar to this the standing reach, both in relation to the body

height, also have a significantly positive impact on both performance measures. In contrast to this, the vertical jumping ability influences both performance measures in a significantly negative way, meaning that basketball players with a higher vertical jump ability show lower athletic performance. Last, the fact that a basketball player was drafted by a NBA team has a significantly positive impact on the athletic performance, too. In a nutshell, the results of this study suggest that individual physical characteristics influence the performance of NBA players.

Furthermore, regression results regarding the impact of physical characteristics as well as on-court performance measurements on the player's salary show that the body height might lead to a higher salary. More specifically, the salary of NBA players in the 2015/16 season increases by 4.1 per cent when the body height increases by one centimetre. Further on-court performance measurements like the minutes per game, assists, usage percentage or turnover influence the salary in expected directions.

Nevertheless, this study has limitations as it only focuses on the NBA and the relation between physical constitution and athletic performance. These limitations motivate further research. It would be interesting to analyse the same object of investigation for other basketball leagues like the Easy Credit BBL or the basketball league in Spain (Liga Endesa), and to compare it to the NBA. Moreover, it would be interesting to analyse the impact of physical constitution on the fact that a player was drafted or not.

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