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THE NBA's ECONOMIC ENVIRONMENT

HOW A PROFESSIONAL BASKETBALL LEAGUE MANAGED TO BOUNCE BACK FROM A LOCKOUT SITUATION

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ABSTRACT

Shortly after the inception of the National Basketball League (NBA) as we know it, many Cultural & Creative Industries (CCI) became prominent in the league's economy: industries such as radio, TV, and advertising are generally seen as the main sources of income for most professional sports leagues.

The NBA, in particular, thanks to its particular Business Model (BM), based on a Franchise System, has a keen eye on these industries, in that revenues coming from these sources are typically shared equally among players and their teams, in an effort to make the league as competitive as possible.

However, some recent shakeups, such as the 2011 lockout, changed the league's economy, slightly modifying how the revenues are shared in the league.

As such, this paper tries to evaluate to what extent are NBA players' salaries affected by the more relevant CCI nowadays, and how this changed from before the 2011 NBA lockout.

This is done by first giving a theoretical background about the NBA's Business Model, before moving on to the relevant CCI that will be considered in the analytical part of this study, that is, TV and sponsorships.

Therefore, the final aim of this study is that of understanding how strong the relationship between average players' salaries and the league's CCI is.

This relationship will be studied through a correlation analysis, alongside the study of linear regression equations, which are useful to better understand the trend of the CCI exploited by the league with respect to the average players' salaries.

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INTRODUCTION

Throughout this study, the economic side of the NBA environment will be eviscerated. In fact, even if the NBA is a professional sports league, it operates just like any other multinational company, in that it follows a given Business Model which sets the way for how this "company" makes money. The main thing to note here, however, is the following: since the NBA follows a "Franchise" Business Model, the money it earns are then shared to all its franchisee (the teams).

Following this, one question arises: how does the NBA concretely make money? That's where the analysis of the main CCI it employs comes into play, as these are the main part of what it is generally called "Basketball-Related Income", a concept which will be duly described throughout this study.

The NBA, over the course of the years, has grown to be in many people's minds, in that it is following a growth pattern which seems just insane, if one only reads the numbers without having too much context. Once we will have a full knowledge of the league's main economic deals and how the money it earns are shared among players and teams, we will see that the NBA is even more similar to a regular company with regular employees, and, as such, the question that will follow is this: are the league's employees' (i.e. its players) salaries affected by the changes in league's revenues? Logically, the answer would be yes, but here things get a bit trickier, and we will see why.

As such, this thesis will be divided in 5 chapters: in the first one, an introduction about the concepts of Business Model and CCI in sports will be given, paving the way for the second chapter, which will start considering the NBA more in depth, scrutinizing its BM. Following this, chapter three will focus on the more relevant CCI of the league, with particular attention to some notable deals and innovations.

Afterwards, in chapter 4 a correlation analysis will be carried out, concerning the degree of relationship between average players' salaries and the CCI introduced earlier in chapter 3.

Lastly, conclusions and expectations following all that has been learned after the statistical study will be drawn.

CHAPTER 1.
BUSINESS MODELS & CREATIVE INDUSTRIES IN SPORTS

In this very first chapter, some relevant concepts for the development of my study will be introduced, in order to give the reader an idea about some general business notions that underline not just the sports industry – which will be the focus object here – but the whole business economy.
Therefore, the "Business Model" rationale will be briefly introduced, followed by a paragraph about Creative Industries – what they are and why we'll be talking about these – and, eventually, a sum-up of these two concepts will be made, in the view of the sports industry, and, in particular, the NBA (National Basketball League), which will be the innovative economic universe that is going to be explored and examined in this paper.

1.1: Delineation of the "Business Model" Concept

The concept of "Business Model" (BM) is not exactly a new one, as it has been originally mentioned by R. Bellman in an article from 1957[1], where it is used only once in an environment where it seems more a synonym for "representation of reality".
This term remained rather unused for decades, and it had to wait until the rise of Internet companies to gain a certain degree of notability in the business environment.
In this period – early 2000s – BM was still seen as just a buzzword, and it kept this "status" until recently, mostly because Internet companies were the new kid on the block, and could not be valued based on their past performance; hence, their value was speculated on the basis of the future that their innovative BMs seemed to promise[2].
Nevertheless, after the dot-com bubble, the BM concept survived and actually started spreading to the brick-and-mortar businesses, and, following this, business literature about it flourished.

[1] Bellman R., Clark C.E., Malcolm D.G., Craft C.J., Ricciardi F.M., (1957), "On the construction of a multi-stage, multi-person business game", Operations Research, vol. 5, n. 4, pp. 469-503
[2] DaSilva C., Trkman P., (2014) "Business Model: What It Is and What It Is Not", Long Range Planning, vol. 47, n. 6, pp. 379-389

The takeaway here is therefore the following: it is not an easy task to give an exact definition for what a BM is, especially considering its troubled proliferation, and, in this particular case, where I will be tying this concept to the professional sports industry, it is deeply challenging.

Interestingly enough, throughout the years, scholars never came close to a univocal definition of Business Model, as the term itself has a broad interpretation range, and commonly and rather generically gets used to define a wide variety of elements that compose a business, eventually becoming a synonym of "strategic plan" or "revenue model".

One of the better definitions that perfectly summarizes what a BM is, might be considered the one given by A. Osterwalder and Y. Pigneur in their enlightening study "Business Model Generation": *a Business Model describes the rationale of how an organization creates, delivers, and captures value*[3].

This means analyzing how a firm gets to keep the promises it makes to the customers, all while trying to make a profit out of it.

More concretely, a company, through the implementation of a BM, will be able to spot its best opportunities and place them alongside expected expenses, with the target in mind of creating a plan that will help the managers to get the most out of the anticipated market the company is acting in.

Putting everything in much rougher terms: a BM tells us how a company is making – and is planning on making – money.

From this introduction, we can clearly see why a BM is deemed so important for the development of an organization.

In fact, even just the process of composing a BM is extremely useful to managers, as it allows them to have a clear vision about the direction their business is going to, detailing the key elements of the firm that will create value for everyone involved in this framework, and on which to focus on.

[3] Osterwalder A., Pigneur Y., Clark T., Smith A., (2010), "Business Model Generation: A Handbook for Visionaries, game Changers, and Challengers", p. 14

For the sake of completeness, it is useful to remind the reader that a BM plan is generally composed by nine building blocks that make up the so-called "Business Model Canvas", a concept introduced by Osterwalder & Pigneur[4]: Key Partners, Key Activities, Key Resources, Value Proposition, Customer Relationships, Channels, Customer Segments, Cost Structure and Revenue Streams.

Each concept is more or less relevant to a company, depending on the strategic vision it has, and, taken all together, they are useful for discussing BM elements in a clear and organized way.

That said, as the main focus of this paper is beyond that of defining what a BM Canvas is, and the concept itself will not be exploited here, there will be no in-depth analysis of each "building block".

What we need to keep in mind, nevertheless, is that these nine blocks make a "blueprint for a strategy to be implemented"[2], and, as such, are widely used by managers to optimally arrange their organizations.

What's amazing about BMs is their ability to be innovated in many different ways, which, considering the latest developments in technology and economy, keeps on producing surprising and more-or-less useful forms of BMs.

What triggers innovation, though? The biggest driver for innovation, according to many, is internationalization[5]. The attractiveness of a global market is, in fact, the main reason leading a business to open up to extend its market, and, following this, innovating its BM. A business trying to enter a wider market without any form of innovation, fit to face new challenges, can't hope to have new sources of value creation.

It's interesting to note that, even if innovation can be triggered by many drivers, and we assume that internationalization is one of the most prominent, BMs do actually get old[6], and this is actually the only driver which not only justifies the innovation, but effectively demands it.

[4] Osterwalder A., Pigneur Y., Clark T., Smith A., (2010), "Business Model Generation: A Handbook for Visionaries, game Changers, and Challengers", pp. 15-16

[5] Schneider S., Spieth P., (2013), "Business Model Innovation: Towards an Integrated Future Research Agenda", International Journal of Innovation Management, vol. 17

[6] Nunes M.P., Steinbruch F.K, (2019), "Internationalization and the Need of Business Model Innovation – A Theoretical Approach", Brazilian Business Review, vol. 16, Issue 3, p. 211

The tricky part about BM Innovation (BMI) in this particular case lies in the unintuitive concept that this process must be initiated while the "old" BM – the one to be innovated – is still in use and is profitable but is reaching its ceiling in utility[7].
This whole paradoxical situation poses even more challenges, as defining the moment in which a BM is reaching its descending slope is no easy task.

With all of this in mind, it's easy to deduce that to every business there's a different number of components that need to be taken into account when discussing innovation.
Consequently, even if the general concepts and drivers of innovation are ever good to start thinking about a BM's renovation, the final choice of the path to follow requires an in-depth analysis[8].
In order to give the reader a more concrete grasp of what BMI actually means, let's consider a very simple example: the Apple case.
The famous tech company started out as a producer of both hardware and software, but, by the late 1990s, the company realized that it could not realistically compete with other players (such as Microsoft) on this market. But the production of computers and OS was Apple's identity, so what to do? A simple, and yet life-changing form of BMI was introduced in the early 2000s: Apple began producing new products and services, such as iTunes, the iPod, and later on, the iPhone. These new products allowed the Cupertino-based corporation to enter new market segments, and, alongside the production of computers and OS, launched the company among the highest grossing firms in the world, a spot that the it still holds to this day.
This particular type of innovation carried out by Apple has also been intensely cultivated, to the extent that a "cult" about its products arose in the last decade, tying consumers to the company in an unexpectedly intense way.

That said, it's easier to see now that BMI does not just mean introducing a new line of products or services, but rather, it implies a wide range of developments along the whole value chain.

[7] Euchner J., "Business Model Innovation", (2016), Research Technology Management, vol. 59, pp. 10-11
[8] Rayna T., Striukova L., "360° Business Model Innovation: Toward an Integrated View of Business Model Innovation", (2016), Research Technology Management, vol. 59, Issue 3, pp. 21-28

This whole process has the chance to deliver amazing returns – see the Apple case – and, as such, should be given a great deal of attention by top managers.

1.2: Introduction to Creative Industries

The Creative Industries' (from here on CIs) sector rose to the academic attention in the early 1970s, a period in which culture and politics were the main points of attention. Communication medias were on the rise, and individual artistic practice had just started to be considered within the range of professional services[9] - mostly as a freelance type of job. But we have to wait until the 90s to see economy and cultural & creative industries become critically tied, mostly thanks to factors such as the development of new economic concepts (e.g. Value Chain), the boom of technology-related sectors (Digital Media, but also TVs, Photography…), and the adoption of statistical tools to keep track of industry's trends. In fact, it was in 1994 in Australia that the concept of CIs started to be discussed, with reference to art and communication technology, and, just a few years later, by the end of the decade, CIs-related ideologies spread around the globe, particularly thanks to the UK and its liberal and innovative conception of cultural and creative activities[10].
Overall, the UK had a prominent role in the development of policies about CIs, to the extent that it was thanks to the UK's Creative Industries Task Force, in 1998, that a first definition of CIs established, together with the definitive adoption of the "creative" industry terminology, in place of the other commonly used "cultural" industry[10]. This change might seem superficial and unnecessary, but it actually underlines how the focus was enlarging to encompass a type of industries affected – or even just generated – by the increasing changes in technology that were booming in that period.

The challenge at the beginning of this "framework" was to convince people that cultural and creative industries actually had economic potential. However, it was quickly proven that CIs, like any other industry, are capital-intensive, employ hierarchical modes of

[9] O'Connor J., "The Cultural and Creative Industries: a Critical History", (2011), Ekonomiaz – Revista vasca de Economìa, vol. 78, pp. 24-47
[10] Mikic H., "Measuring the Economic Contribution of Cultural Industries", (2012), pp. 14-15

managerial organization, and adoperate technological systems that aid both production and distribution, all in order to provide goods and services to the consumers[11].

Following this, it will come naturally to wonder what a Creative Industry concretely is.
Similarly to what we've seen with BM, the definition of CIs has been subject of debate. Many coincident definitions, have been given by influential organizations and institutions, which seem to agree on the core activity of CIs: producing goods and services through the exploitation of creativity, and which have the potentiality to be copyright-protected.
One of the better definitions which can be found is, undoubtedly, the one provided by the UK's Government for Culture, Media and Sport (DCMS), which states that CIs are *those industries which have their origin in individual creativity, skill and talent and which have a potential for wealth and job creation through the generation and exploitation of intellectual property*[12].
Simply put, CIs rely on human creativity to generate wealth.

The CIs' framework generally consists of a number of industries which essentially cover all of the human range of jobs that require bits of creativity to be carried out.
The DCMS encompasses 13 sectors, but the "list" that we are going to keep in consideration for this paper is the UNESCO's one, which is shorter than the DCMS' one (as it does not consider Fashion as a CI, for instance), but more focused.
That said, the UNESCO defines "only" 11 sectors, namely:

- Advertising
- Architecture
- Books
- Gaming
- Movies
- Music
- Newspapers & Magazines
- Performing Arts
- Radio
- TV Broadcasting
- Visual Arts

[11] Garnham N., "Concepts of Culture: Public Policy and the Cultural Industries", (1987), Cultural Studies, vol. 1, issue 1, pp. 23-37
[12] As reported by: Parrish D., "Creative Industries Definition", https://www.davidparrish.com/creative-industries-definitions/

What's worth noting about CIs, furthermore, is that they can drive economic growth especially thanks to their ability to create new jobs, therefore notably helping states' economies. As such, the level of economic contribution of CIs to the world's economy is extremely relevant.

According to an influential analysis brought to us by the Ernst & Young group[13] in 2015, Cultural and Creative Industries (CCI) generate US$ 2,250bln of revenues and 29.5 million jobs worldwide, which amount to approximatively 1% of the world's active population. The biggest sectors in terms of revenues are: Television, with US$ 477bln, Visual Arts, with US$ 391bln, and Newspapers & Magazines, with US$ 354bln.

The sectors employing the most workers, instead, are: Visual Arts (6.73mln), Books (3.67mln) and Music (3.98mln).

It is worth noting also that the CCI market is effectively a *global* market: from the Asia-Pacific zone, to Europe, North America, Latin America and Africa, all regions are developing contents and keep on growing over time.

Furthermore, CCI is a sum of inclusive sectors, actively contributing to the creation of jobs for the young, with no discrimination of any kind, opening up to always new entrepreneurial efforts, thus benefiting also independent workers.

As a closing note for this paragraph, I'll anticipate the reader that in the next chapters two CCIs will be analyzed more thoroughly, in relation to the NBA's environment: the TV Broadcasting industry, and the Advertising industry (with a focus on sponsorships, in particular).

The reason for this is very simple: these two industries are the ones that grant the US professional basketball league the highest revenues, and which evolved the most intensively in the last decades, factors that make them the perfect subjects for an economic analysis.

[13] Lhermitte M., Blanc S., Perrin B., "Cultural Times – the first global map of Cultural and Creative Industries", (2015)

1.3: A Peek at the US' Sports Industry

One may think that a framework such as the BM one is exclusive to Wall Street-type of businesses, thus considering the sports industry, and therefore sports leagues around the world, a mere form of entertainment for the masses at best. Well, that would be a very shallow view of the present state of things.

Sports leagues are actually money-making machines, which attract hundreds of sponsors and, thanks to the impact of a few CIs, especially in the last years, are designed to keep on growing.

What I'll be explaining in this paragraph is therefore the identity of a few sports leagues based in the US, briefly considering their BMs, the reasons being: first, the focus of this paper will be the NBA's economy, and, given this, it is useful to have a clear overview of the situation of sports leagues in the American environment, as considering leagues overseas might bias the research; second, the US has a deep culture of professional sports, factor that is clearly shown by the insanely high numbers of fans the leagues I'll be citing enjoy, and by the amazing revenues that these take into account.

As such, the leagues that I'll briefly introduce, and that will give a comparable pattern to the reader, are the following: the NFL (National Football League), the MLB (Major League Baseball) and the NHL (National Hockey League). The NBA will only be mentioned here and there, as it is going to be the main point of focus of the rest of this paper.

As we will see shortly, the four leagues cited above are considered the "Big Four" sports leagues in US, all of them racking up billions of dollars in revenues.

Considering data from last year, we notice how the NFL leads the bunch by a discrete amount: in fact, in 2018 it exceeded $13 billion in revenues, trailed by the MLB, bringing in just above $ 10 billion, followed by the NBA, which recorded close to $ 5 billion, and lastly the NHL, which is getting close to the $ 4 billion threshold[14].

[14] As reported by: Anderson D., "Ranking Professional Sports Leagues by Revenue", (2019), https://ultimatecorporateleague.com/ranking-professional-sports-leagues-by-revenue/

But how do these federations manage to raise these crazy sums? To answer this, it is useful to give a look at the BM frameworks that these leagues employ, as that will give us the purest answers one could wish for.

1.3.1: National Football League – NFL

The NFL organizes its revenue stream in two main categories: national and local revenues[15]. The first one comprises TV deals with national television, merchandising, and licensing deals. All these types of deals are negotiated by the NFL "personally", and the money earned this way then get equally distributed among all of the 32 teams that are part of the league. More in detail: considering the TV deals, which usually represent the highest source of revenues for sports leagues, and the NFL makes no difference, the league signed a variety of deals with national broadcasters (ESPN, Fox, CBS, NBC, DirecTV being the most relevant) valid for many years, which will net approximatively $ 55 billion from the time they have been signed (2014-2015) until their expiration date (2021-2022).

Considering merchandising and licensing deals, instead, these give profits by granting rights to various companies (such as Nike) to sell NFL-branded goods but make up only a smaller percentage of yearly revenues, just about 10%. We are still talking about millions of dollars, but, if compared to the close-to-insane value of TV deals, its clearly just little kids' money.

"Local" revenues, finally, simply consist of: ticket sales (the bread-and-butter of every sport team everywhere), concessions (i.e. the permissions given to third parties to host events in the team's arena), and corporate sponsors (which encompasses various forms of sponsorships, from a company's name on a team's uniform, to TV ads, to banners in the arena). These revenues, unlike the "national" category, do not get pooled all together and then redistributed, but they simply flow directly into the individual teams' bank accounts.

[15] Eckstein J., "How the NFL Makes Money", (2019), https://www.investopedia.com/

1.3.2: Major League Baseball – MLB

The MLB is the second highest-grossing league in the world, directly following NFL, exceeding $ 10 billion in 2018, according to Forbes[16]. Just like the NFL, also, the biggest sources of revenue for the baseball league are: 1. TV deals (both national and local), which, thanks to the determination of most fans who still want to watch sports games live, allow big money to come in from advertisements; 2. Ticket sales (which here account for one third of revenues for teams, due to their variable cost[17]); 3. Concessions, meaning money coming in directly from the use of the teams' arenas (sale of goods, parking spots rents…), which in 2014, for instance, amounted to around 7% of total MLB revenues – not exactly pennies; 4. Just like NFL, we find licensing agreements and sponsorships, which include big names such as Nike – which appears to be omnipresent in the US' professional sports environment – and also Apple, MasterCard and more, which contributed to provide the league with close to $ 1 billion in 2017[17].

Interestingly enough, MLB does not follow the NFL style of revenue sharing, as in the pro baseball league revenues in excess are shared from the richest teams to the less lucrative ones, in a very similar fashion to what happens in the NBA, as we will see in the next chapter, thanks to the franchise system that regulates the league, which has the objective of keeping the league competitive.

1.3.3: National Hockey League – NHL

The NHL is often overlooked when taking into consideration national sports leagues, as it is the least followed one among the "Big Four", considering average attendance per game, for instance, where it records 17.446 average spectators, against the 17.830 of NBA, 28.794 of MLB, and 67.042 of NFL (data as of 2017/2018 season[18]). Furthermore, in terms of revenues, NHL is also the smallest one, as noted earlier, but it still is thoroughly interesting to analyze, mostly because it presents many similarities with the NBA.

[16] Brown M., "MLB Sees Record Revenues of $10.3 billion for 2018", (2019) https://www.forbes.com/
[17] Fontinelle A., "Major League Baseball's Business Model and Strategy", (2015), https://www.investopedia.com/
[18] http://www.espn.com/nfl/attendance/_/year/2018

The reason for the low numbers in this sport might for sure be the actual passion that the viewers feel for this sport, which is evidently not as high as the one expressed for other sports.

But, if we consider economic factors, one could not note that the NHL has had a historically dysfunctional BM, which led to an unusually high number of strikes and lockouts in the last few decades.

In fact, in 1992 a strike postponed 30 games of the 1991-92 season, and in 1994-95 an actual lockout caused the league to cancel many scheduled games (36 games per team, precisely). Furthermore, in 2004-05, exactly 10 years after the last lockout, a new one forced the league to cancel *its entire season*, and, lastly, in 2012-13, the regular season was shortened to 48 games per team, instead of the usual 84.

This represents a strong common point with the NBA, as the basketball league also experienced many lockouts in its history (the last one in 2011), and this led the league to reform it BM multiple times.

Focusing on the NHL, after the 2012-13 lockout, and a redistribution of hockey-related revenue (money generated from streams directly or indirectly related to NHL games, such as TV deals, ticket sales, merchandising sales…), which happened thanks to a renegotiation of the Collective Bargaining Agreement (concept that will be thoroughly analyzed in the next chapter), most teams immediately doubled their profits, and this growth process is still going on to this day[19].

More concretely, the NHL makes money just like its "cousins": TV deals are big-time players (on the national level, for instance, NHL signed a deal with NBC in 2011 worth $ 2 billion, expected to run through the 2020-21 season[20]), followed by the usual suspects ticket sales, sponsors' money, concessions and merchandise sales, which all together make up the $ 4 billion the league earned in the last year.

[19] Campigotto J., "The NHL is Making So Much Money", (2018), https://www.cbc.ca/

[20] https://www.reuters.com/article/us-nhl-nbc/nbc-and-nhl-agree-to-10-year-tv-rights-deal-idUSTRE73J02020110420

1.4: Closing Remarks

Throughout this chapter, basic notions for the development of my paper have been given, and, as the arguments that will come next are written with these frameworks in mind, I'd like the reader to keep them in mind when reading the next pages. To help with this, I'll point out that the takeaways from this first chapter are not many, but extremely important for what we'll be facing. First and foremost, we have seen that the biggest sports league in the US have different BMs, but their revenue streams are basically the same: industries such as the Television one, advertising & sponsors, they all are essential players in the economies here described. Secondly, a closer eye should be kept on the BMs of these league: yes, they are similar, and yet so much different. Some might be extremely sound, other are shaky, but it's assured that they will not make the leagues' revenues' growth slow down, at least in the foreseeable future.

CHAPTER 2.
THE NBA ENVIRONMENT

Throughout this chapter the NBA environment will be explored, as this will be the main focal point of my research.
The American basketball league has particular characteristics that distinguish it from the other national leagues, and not just the basketball ones: from its peculiar Business Model, that helped the league to stay profitable, and actually improve its financial position, after a period of crisis culminating in 2011, to the closely scrutinized relationships among players and teams, elucidated in the Collective Bargaining Agreement, many factors concur to define the NBA as a unicorn in the professional sports industry, a one-of-a-kind type of enterprise, whose characteristics are hardly replicable by others.
Without further ado, let's dive into the NBA universe, analyzing it from its origins, up to the latest developments that innovated its money-making processes.

2.1: Introduction to the NBA

The National Basketball League (from here on, NBA) was established in 1949, as a consequence of the merging of the "Basketball Association of America" (BAA) – born in 1946 – and its direct competitor, the first ever professional basketball league, the "National Basketball League" (NBL), founded in 1937.
Up until the 1980s the NBA was experiencing all-time lows in games attendance and TV viewership, which resulted in money loss for both the teams and the league.
But the landing of the new commissioner David Stern in 1984 and a number of marketing campaigns focused on boosting the image and rivalries between the league's new raising stars (such as Michael Jordan, Magic Johnson and Larry Bird), combined with the renovation of traditions such as the All-Star Game (a show-game played between two teams composed by the league's biggest stars, voted by the fans), gave the league new life, turning it into a more international company, with a particular deal of attention to the entertainment side of the sport.

This prosperous period was not meant to last, though: in the new millennia, very few of the 30 teams competing in the NBA could enjoy positive cash flows.
This led to a lockout situation, which escalated in 2011, causing the league to reformulate its Business Model and to renegotiate the collective agreement that ruled the league (see paragraphs 2.3 and 2.4).
However, the NBA came out on top of these agreements, and is now as profitable as ever, as this paper will show in due time.

2.1.1: The Franchise System

If we consider the top basketball leagues around the world other than the NBA, such as the ACB in Spain, the "Lega Serie A" in Italy, or the TBL in Turkey, the first thing to note is that these are incomparable to the American association, when considering profitability. This is not just due to the extremely high level of marketing that the NBA enjoys, nor the number of viewers worldwide, which are solid sources of revenue, for sure. The main reason for the disparity between the NBA and its "cousins" leagues, which makes the American association so rich, is its Business Model.
The main factor which underpins the NBA environment is, in fact, the franchise system employed. This is not an unusual Business Model, as there are many world-wide famous companies which exploit it to a great deal of success. It simply consists in a license acquired by a party, which grants access to trademarks, processes and other assets owned by an established business, in exchange for an annual fee and an up-front payment, and we are all witnesses of the success of this model: just think about McDonald's and its fellow fast-food competitors. They all employ this model, and the success of these companies is a proof of its validity.
In sports, however, things work slightly differently. In our case, in fact, the franchises are the teams that make up the league, which, in turn, is an independent and self-managed entity[21]. The NBA, therefore, works like a Limited Corporation, whose members are not physical people, but the franchises, i.e. the teams.
This means that, if a new team wishes to enter the league, the NBA's organizational board reviews the request, and then a fee has to paid ($300 million). Afterwards, a

[21] Barmat M., (2011), "NBA: How the Business Works", https://worldhoopstats.com/

period of close scrutiny has to pass, during which the league makes sure that the upcoming team can sustain all the expenses which professional basketball teams usually incur into, and therefore be profitable.
Therefore, the league is the "franchisor" (i.e. the business granting the license), and the owners of the teams, who seek to enter the league, are the "franchisee" (i.e. the party who's acquiring the license).

Furthermore, another peculiarity of this franchise model concerns players and the contracts they sign with the teams: a player wishing to play in an NBA team, in fact, has to sign a contract not with the team he intends to play for, but with the league itself. Nonetheless, the team is the one in charge of paying the agreed salary to the player, and, in turn, he can only play for said team.
Worth noting, the salary which a player perceives also represents his market value: this implies that players get traded on the basis of their contract's value. Concretely, this means that if team A wants to obtain a player X from team B, who perceives, say, $1 million/year, it will have to offer for a trade a player Y whose contract is similar in value to the one of player X.

Two more relevant characteristics of this model, linked to the salaries paid to the players, are the "Salary Cap" rule and the "Luxury Tax".
The first one represents a limit that teams cannot exceed when considering the sum of the salaries of all the players each team enrolls. To make things clear: as of the 2018/2019 season, the league's Salary Cap was set at $100 million. If a team pays salaries to all of its players combined for a grand total of $110 million, said team is exceeding the Cap. This leads directly to the Luxury Tax: the amount "over the cap", which in our case equals $10 million, has to be paid to the league, just like a common fine. This money, in turn, is distributed equally among the teams that manage to stay "below the cap", in an attempt to balance the teams' payrolls and discourage the accumulation of overpaid players – which are usually also the best players – in a limited number of teams, which will result in a not-so-competitive league.

All these characteristics make the NBA a blend of the two most popular league forms employed in sports: the quite common "club association" style, and the "single entity" style. In the first one, every player signs a contract with a given team, and the team in turn commits to paying the player a salary. In the second model, the players sign a contract with an organization which also owns the teams they play for.
That said, it is easy to deduce that the NBA teams are not exactly clubs, like most European football teams are, for instance. Instead, as franchises, they have the right and responsibility to manage their own local broadcasting contracts (TV deals, radio…), but the league itself is the one holding the rights for the national-level contracts, which, notably, are the ones we will be studying in this paper.
The list of contracts arranged and managed by the league is not limited to the broadcasting sector, clearly: we can add to this marketing products, sponsorships, advertisings, partnership agreements and more – everything at national level.
It is worth noting, however, that the revenues earned through all of these sources flow into the NBA's vaults, but are then distributed evenly between each of the 30 teams that make up the league, as of 2019, similarly to what happens in the Luxury Tax situation.

2.2: Basketball-Related Income

"Basketball-Related Income" (BRI) represents the aggregated operating revenues received by the teams, the NBA and any venture in which the league has at least 50% share. These revenues derive from various sources, which are all related to the performance of players in NBA basketball games or other NBA-related activities. Concretely, BRI includes sources such as: gate receipts (i.e. money from tickets sold for live basketball games), TV deals, sales of concessions and any other in-arena good or service, sale of fixed arena signage (within or outside of the arena in which an NBA team plays its regular season and playoff games), sale of naming rights agreements, any form of sponsorship money received by any league-related entity, and more[22].

[22] As defined in the "NBA-NBPA Collective Bargaining Agreement", (2017), pp. 126-134

If BRI exists, one could argue that Non-Basketball Related Income (Non-BRI) must have its own description as well, and in fact, the Collective Bargaining Agreement signed in 2017[23] gives us an exhaustive description of this.
Conversely to what BRI defines, Non-BRI is a list of revenue sources *not* derived from the performance of players in NBA basketball games nor NBA-related activities. Briefly, this list includes: revenue sharing among teams, interest income, insurance recoveries, proceeds from the sale or rental of real estate, proceeds from the sale, transfer or disposition of any asset or property of any NBA-related entity, proceeds from the assignment of player contracts, money collected from the teams for charitable purposes, and more[24].

The concept of BRI will be key for the development of this paper, as this is the basis for understanding the NBA's economy and how the league concretely makes money.

As briefly mentioned earlier in this chapter, the money coming from BRI sources are divided among the 30 teams that make up the NBA, and in fact BRI are the main sources of revenue for NBA franchises.
In addition to this, though, the players active in the NBA are entitled to the 50% of the *forecasted* revenues earned from BRI.
The "forecasted" clause is extremely relevant here, as individual salaries for the players are signed well before the end of the regular season (i.e. the moment in which the exact amount of BRI is calculated).
The reason this is so important is soon said: in the case in which the forecasted amount happens to be lower than the actual amount (therefore, in the case in which the league makes more money than it expected to), players are – rightfully – entitled to a share of that unpredicted money. To be more precise, they are entitled to 60.5% of the difference between the forecasted amount and the actual amount.

[23] See paragraph 2.3 for the description of CBA
[24] As defined in the "NBA-NBPA Collective Bargaining Agreement", (2017), pp. 134-139

To make things clear, let's consider a very basic example:

> Let's say the forecasted amount of BRI for 2018/19 was $5 billion. The 50% of this amount is $2.5 billion, which should be distributed among the players who were active during the 2018/19 season. In the case in which the actual amount of BRI is, say, $5.4 billion, the players will have to receive:
> - the $2.5 billion already computed *plus*
> - $242 million, which is the 60.5% of the amount by which the actual BRI exceeded the forecast
>
> This would total to $2.742 billion to be shared among the players, while the remaining $2.658 billion will have to be shared among the NBA teams.
>
> If instead the actual amount of BRI for 2018/19 turns out to be, say, $4.6 billion (therefore, lower than the forecast), the players would get:
> - $2.5 billion, which is the 50% of the forecast still, *minus*
> - $242 million, which is the 60.5% of the amount by which BRI fell short of the forecast
>
> This would total to $2.258 billion to be shared among players. The remaining $2.342 billion, once again, are going to be distributed to the teams.

Therefore, the calculations for BRI are particularly relevant and are never taken lightly by the NBA's statisticians.
Moreover, the total amount of BRI concurs to the definition of the dimension of the yearly Salary Cap[25]. This is a logical assumption, as if the income of a team goes up, the same team will tend to pay more for its players to retain them in its roster, or it will offer more money to a star player to secure his services. Therefore, the Salary Cap has to raise hand-in-hand with the – average – revenues of the NBA teams.

The interesting thing to note here is that the pace at which the BRI and the Salary Cap are growing is simply insane. Just 10 years ago, for the 2008/09 season, the Salary Cap

[25] Remember that the Salary Cap is a money limit that the teams cannot surpass for the payment of the sum of the salaries of all the players enrolled in their rosters.

was set at $58 million, while in 2018/19 season it surpassed the $100 million threshold. That's an almost 100% increase in only 10 years.
Actually, the highest spike in the Salary Cap threshold happened between the 2015/16 and 2016/17 seasons, when it went from $70 million to $94 million, and the reason for this is easily identifiable. In fact, from the 2016/17 season, a new TV deal with ESPN and TNT (two very popular US national TV broadcasters) was signed by the NBA. While the previous deal granted the league a yearly amount of $930 million, with the new deal this amount reached the prodigious sum of $2.6 billion. Yes, you've read that right. That's an almost 3 times increase in just a one-year time span. This is a clear example of how tied BRI and Salary Cap are.

The amount of money involved in BRI makes it easy to understand why the definition of its split between players and teams/team owners is such a tight argument, and a point on which agreements are hard to achieve. In fact, the parties have failed to reach a mutual arrangement about this in more than one occasion, as we will see in a minute. Notably, this split is expressed in the Collective Bargaining Agreement, i.e. the contract ruling many aspects of the NBA economic environment.

2.3: The Collective Bargaining Agreement

In the previous pages I've already used the term "Collected Bargaining Agreement" (CBA), without however giving a proper definition of what this is. It is now necessary to provide a concrete definition of this concept, as it's a core concept of the NBA economy, and it will be also fundamental to keep in mind for the development of this paper.

"*A CBA is a written, legally enforceable contract for a specified period, between the* ***management of an organization and its employees*** *represented by an* ***independent trade union****. It sets down and defines* ***conditions of employment*** *and procedures for dispute resolution […]*[26]"

[26] <Collective Bargaining Agreement, BusinessDictionary.com, Retrieved August 22, 2019, from BusinessDictionary.com website: http://www.businessdictionary.com/definition/collective-bargaining-agreement.html>

What this useful definition tells us, is that CBA is a concept not exclusively used in the NBA environment, but actually quite common in the labor market.
However, to better understand it in the light of the peculiar NBA situation, let's analyze a few relevant details of this definition:

- ***management of an organization and its employees***

The peculiarity here rises from the factor that the "organization" in question is actually a professional sport league, and, as such, among the employees we find the players. Nonetheless, the team owners are maybe the parties which are most interested in a well-managed agreement, as the money that does not flow into the players' bank accounts is then collected by them. As such, during negotiations, team owners often push to reduce the players' share of BRI, and this happens for two main reasons: they want to collect more money, but also to reduce the Salary Cap, in order to reduce the amount of salaries to pay and, following this, make the league more competitive by giving smaller teams in smaller markets[27] the same chances to attract more valuable – and therefore expensive – players.

- ***independent trade union***

As odd as it might sound, NBA players are actually represented by a labor union, which is in charge of bargaining the CBA with the league, and, as such, is of vital importance for the league's economy. This union is known as "National Basketball Players Association", or NBPA, and was founded back in 1954 by Bob Cousy, a player of the Boston Celtics, who was also elected first President for the union.
The mission of the NBPA was – and still is – that of ensuring that the rights of the NBA players are protected[28].

[27] The "small teams in small markets" expression refers to all those NBA teams which are not based in big metropolitan areas, and, as such, have a smaller fan base, which generally means less money. For example, the New York-based team, the Knicks, is generally considered a "big market", mostly because of the city's fame, while the Phoenix-based team, the Suns, because of the location of the team (south Arizona, quite close to the Mexican border), attracts much less attention.
[28] https://nbpa.com/about

However, the union was not recognized by the team owners until 1964, when the players threatened to boycott the first-ever televised All-Star Game. After the recognition, players were granted rights that started to improve their conditions, among which we can cite: pensions rights, healthcare and minimum wage.
Furthermore, the NBPA was the party in charge of writing down and establishing the NBA Salary Cap – the first ever in professional sports leagues – which has been implemented for the first time during the 1983/84 season.
Notably, one of the most relevant right that the NBPA ensures to the players, is the right to strike. This right has indeed been enforced by the players in four occasions, the first one in 1995, and have contributed to work out some labor differences, as we will see more in depth in the next paragraph about the 2011 lockout.

- ***conditions of employment***

The setting of the employment conditions is maybe the most relevant function – to the players – that the CBA sets out, as through the enforcement of these, some of the basic rights for the players are ensured, and, in addition to this, one-time occasions are encompassed.
Some of the most relevant issues that are addressed by the CBA, regarding employment conditions, are:

- Minimum salaries for rookies (players at their first year in the NBA);
- Minimum salaries for veterans (players who have played in at least 8 NBA seasons);
- Free agency (rules about who the free agent player[29] is allowed to sign for);
- Pensions for players;
- Salary Cap.

[29] A "free agent" player is a player who's not under contract with any specific team, following the expiration of his last contract, and is therefore free to sign with any franchise – though with some restrictions.

One more thing worth mentioning about the CBA, is that it addresses also non-compensation issues, such as drug testing, disciplinary action for off-field behavior, the length of the season, which are all determined collectively[30].
In short, the CBA states what the economic side – and not only that – of the league will look like for the foreseeable future, and given its importance, it is renegotiated on a regular basis.
However, we've already noticed that the bargaining between the NBPA and the NBA officials' board does not always end well, with the worst outcome of a lack of agreement being a lockout situation, which is our next focus point.

2.4: The Lockout and the 2011 Situation

According to the Cambridge Dictionary, a lockout is "*an occasion when an employer prevents workers from entering their place of work until they agree to particular conditions*[31]". This means that, in the case in which a labor agreement has to be bargained, and a meeting of minds does not happen between the parties involved, a lockout happens. In the NBA, a lockout situation can happen – and it did – in the case in which a new CBA has to be negotiated, following the expiration of the previous one. Given the importance of the points in contention during this type of negotiations, and mostly, the amount of money involved, an agreement is not always easy to find.

A relevant factor to keep in mind when considering an NBA-type of lockout, is that, in the case in which the lockout situation extends for an unforeseen amount of time, it might cause the suspension, or even cancellation, of games to play.
The result of this is a loss of money, especially for the TV networks scheduled to air NBA games in question, but also for teams' arenas and those parties which hold their naming rights (losses due to a lack of media exposure, and the inability to fill the seats), and the league's and teams' sponsors (who typically pay for TV and in-arena ads in order to gain exposure)[32].

[30] Staudohar P., (2012), "The Basketball Lockout of 2011", Monthly Labor Review, vol. 135, issue 12, pp. 28-33
[31] https://dictionary.cambridge.org/it/dizionario/inglese/lockout
[32] Del Rey J., Okzan K., (2011), "Who will win and lose in the NBA lockout?", Advertising Age, vol. 82, issue 39, p. 10

The two biggest losers in this type of situation are actually small market teams and teams who were already struggling economically. Of course, the reason for this stands in the fact that this kind of teams do not have many revenue sources outside of BRI, and therefore find it hard to pay their expenses with the loss of their biggest sources of revenue. Reportedly[33], during the 1998/99 lockout, for every game missed, the Boston Celtics, at the time owned by the "Boston Celtics LP", a public company, lost one fortieth of its gross profits.

But exactly, one might ask, what are the *immediate* consequences of a lockout in the NBA? Soon said, some limitations take place. First of all, the impossibility for the players to play games in the NBA stands out, which is a prerogative of a lockout situation in any environment, as the owners prevent the players from doing so.
Notably, there's a loophole in this "non-playing clause", as players can still commit to play for teams outside of the NBA, and many did so during the 2011 lockout, however requiring an "escape clause" in their contracts, which allowed the players to return to their original NBA teams once the lockout situation was resolved.
Moreover, as players are prevented from playing in the NBA, their teams do not have the ability to pay them their due salaries. No contract bargaining is furthermore possible, and trades among NBA teams are prevented from happening. Lastly, free agents cannot be signed, and training camps cannot be held.
All of these limitations eventually came to life in four distinct occasions, over the course of the NBA history. To give a short background, let's briefly consider each one of them, with a particular focus on the most recent one:

- the 1995 lockout, the first ever in professional sports industry: it lasted 2 and a half months, but it verified during the off-season, so no games were cancelled. The main issues during this dispute were the Salary Cap dimension, the free-agency market, and revenue sharing (i.e. the division of BRI among players and owners).

[33] Barr P., (1998), "Lockout can't sink most NBA stocks", Pensions & Investments, vol. 26, issue 22, pp. 1-2

- the second one happened just one year later, in 1996, and it lasted only a few hours on July 10. This lockout was caused by the inability of reaching an agreement on how the $50 million coming from TV revenue should have been shared, but the dispute was quickly resolved when the league conceded to the players' requests (allocating an additional $14 million from the TV revenue to the Salary Cap).

- the third one in 1998: this was an unprecedented and extremely serious situation, as the dispute between the NBPA and the league went on from the first days of September up until January 20th, for a grand total of 204 days and 464 games cancelled (shortening the season from 82-games per team to just 50).
  The points at dispute here were the usual suspects: the Salary Cap dimension, but also college draft[34] and right of first refusal (for which a team X can choose to match the salary offer of another team Y for a player who's a free-agent who played the last season for team X, hence retaining said player)[35]. An agreement was eventually reached, which involved, among the other things: the setting of a limit for players' salaries, the institution of the Luxury Tax (see paragraph 2.1.1), the increase of the minimum salary for players (from $15.000 to $287.000), the modification of the share of revenues to players (55% of BRI), and an expansion on the league's policies about drugs, which involved the institution of yearly random testing[36].

- the most recent one, and maybe the most relevant of them all, began on July 1st, 2011, as soon as the latest CBA, bargained in 2005, expired.
  Earlier that year, negotiations to renew the CBA had already started, but no deal was ever reached. On one side, the NBA claimed it had been losing money[37] for

[34] The NBA draft is an annual event during which every team can choose a player coming out of college (or from foreign basketball leagues) who declared himself eligible to play in the NBA, and who will then end up becoming a professional NBA player. The main dispute here surrounded the minimum age for eligibility.
[35] Staudohar P., (1999), "Labor Relations in basketball: the lockout of 1998/99", Monthly Labor Review, vol. 122, issue 4, p. 3
[36] Staudohar P., (1999), "Labor Relations in basketball: the lockout of 1998/99", Monthly Labor Review, vol. 122, issue 4, p. 8
[37] Retrieved from <https://www.sportingnews.com/us/nba/feed/2010-10/nba-labor/story/david-stern-says-nba-will-lose-300-million-this-season>

years ($300 million a year, on average), and required a reduction of players' salaries and the institution of a hard salary cap, instead of the "soft" cap employed at the time[38]. We've already mentioned the BRI issue (par. 2.2), considering the share of players' revenue to be 50%. This was implemented after the 2011 lockout, before which players had access to a whopping 57% of BRI, and this was one of the hardest points to bargain. Among these "common" points of contrast, other differences which prevented the parties to reach an agreement included: players' contracts length, the amount of the Luxury Tax, and the value of the so-called "mid-level exception" (an exception teams can enact once a year, which allows them to sign a player to a contract worth a specific amount – equal to the average NBA salary of the teams exceeding the Salary Cap – for a period of time of up to four years). The parties eventually found agreement on all the concerning points, managing to save the regular season as well: in fact, the season was eventually only shortened from 82 games per team to 66, and it started out on the 25th of December.

More recently, in 2017 a new CBA has been bargained, with no dispute whatsoever arising, as the key points (Salary Cap and share of BRI) remained unchanged. Nonetheless, the risk of a lockout is always present, as the amount of money getting poured in the NBA environment is increasing at a stunning pace, and the parties involved in the league's economy are always eager to improve their positions.

2.5: The NBA's Current Business Model

Following the negotiations of the 2011 CBA, the NBA also had to reform its Business Model, and we've seen how it started out by giving up a smaller share of revenue to the players. However, this was only the first step towards a new growth process.

[38] "Soft" salary cap: teams can exceed the threshold set by the league, and if they do so a tax has to be paid (Luxury Tax) vs. "Hard" salary cap: under no circumstances the salary cap threshold can be exceeded. This makes the league much more competitive, by preventing a single team to gather many high-level (and therefore, highly paid) players.

The success of the NBA nowadays is well highlighted by the average value of each team, which, in 2019, was estimated to be $1.9 billion[39]. This value was one third this big just five years ago, and it is expected to grow even more in the next years, given the recent years' rapid growth pace and the novelties the league is introducing, which tell us that this process is just getting started.

That said, what makes the NBA teams so valuable? And, most importantly, how does the league make money?
Notably, the value of NBA teams depends on four main factors[39]:

1. Sport Value
   This is made up by the amount of revenue a team receives following the revenue share process carried out by the league (a team's share of BRI, for instance);

2. Market Value
   This includes that chunk of revenues that teams raise from their own local markets: i.e. the money a team receives from its fans;

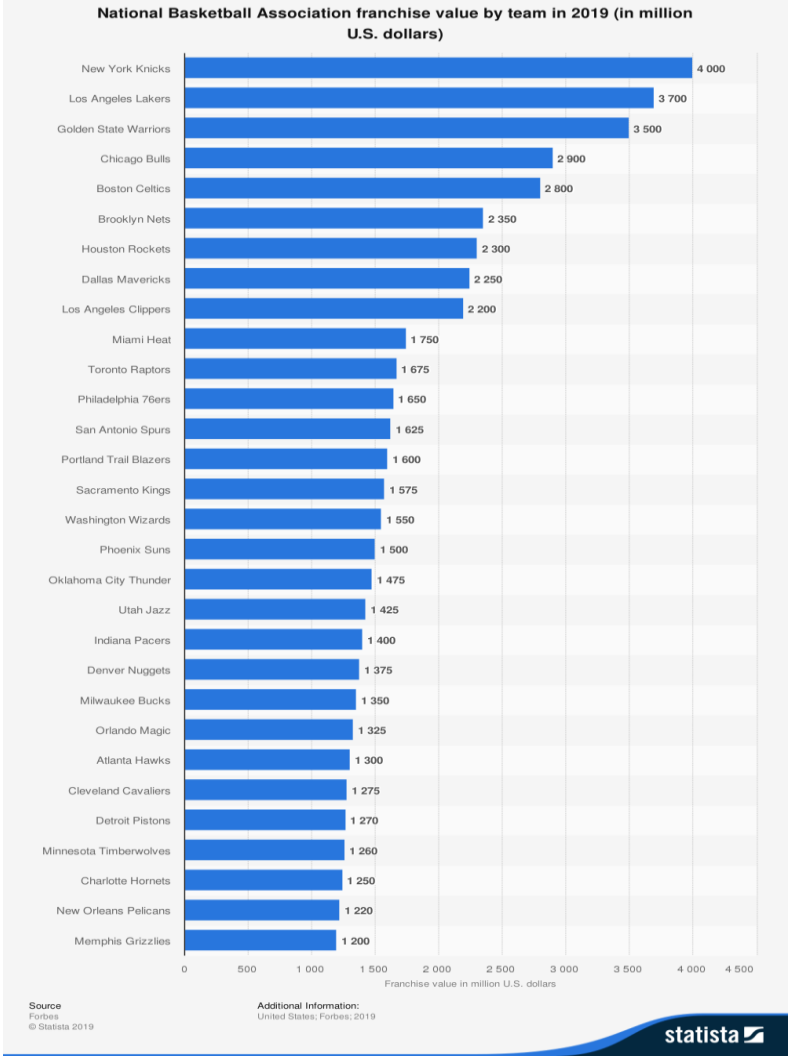
3. Arena Value
   We've already briefly mentioned this, but it's useful to recall that a well-managed arena has the ability to concretely boost a team's value, thanks to the various sources of revenue it creates: revenues from tickets, concessions and sponsorships are all relevant cash-generators, and teams should not underestimate their impact;

4. Brand Value
   This simply comes from a team's specific brand value; that is, the financial value of having customers – which, in our case, are the fans – who are willing to be economically committed to a team, simply because of the image it propagates.

[39] Ozanian M., Badenhausen K., (2019), "NBA Team Values 2019: Knicks on Top at $4 Billion", https://www.forbes.com/

Simply from this, one could deduce that the best-selling and most valuable teams are not always also the winning ones, as one franchise might be considered valuable because of its history and its fame – hence, what we can define as "Brand Value" – which are not necessarily tied to the latest competitive results.

One example of this concept is actually the most highly valued team as of 2019, the New York Knicks. Despite the lack of success for the team in the last decade and a half (period during which the team was among the worst performing teams in the league, on average), its value touched $4 billion in 2019 (see *Graph 1*), more than any other professional basketball team in the world.
The fame of the New York City's own franchise, therefore, helps the team in ways that few other cities can.



Graph 1

Source: https://www.statista.com/

Before entering the details of the league's BM, now, it is worth recalling that up until 2011, the NBA reportedly[40] was not making money, and, in fact, it was losing money. Furthermore, in 2011, NBA spokesman Tim Frank revealed to the New York Times that

[40] Manfred T., (2011), "NBA Owners Say They Aren't Lying About Losing That Much Money", https://businessinsider.com/

during each and every year of the new millennia, the NBA never recorder positive Net Income, EBITDA or Operating Income.
Nonetheless, the league managed to bounce back, and has since started out a seemingly unstoppable growth process.

With this closing paragraph, we can now consider all the information gathered, and give a holistic vision of how the NBA Business Model looks like.
Worth noting, the NBA's BM is not exactly based on the sales of its products, unlike most companies, and following this, we have to take a broader look to this environment to have a deeper understanding of what makes the league so profitable.
We now know, in fact, that one of the main drivers of the league's success is its peculiar franchise model employed, which makes it possible for the NBA to operate like a well-oiled machine, clearly disclosing the necessary procedures to become part of the league, while making sure to limit the number of loss-operating teams – thanks to its strict requirements.
Therefore, we can consider the league's franchise model as the backbone of its BM.
Keeping this in mind, we can now move to synthetize the changes in the relevant fields that grant the highest profits to the NBA environment.

First of all, the BM of the NBA *before* the 2011 lockout focused on revenues coming from three main profit sources: TV deals, Ticket Sales & Concessions[41], and Licensing Agreements & Sponsorships. A careful reader will notice that these three broad categories are common to the other US professional sports leagues, described in Chapter 1. Furthermore, they are all part of BRI, that is, the economic area from where most of the NBA money come.

Furthermore, we've also seen how these revenues were split between players and teams, initially with a 57% share of this money provided to the players. That's exactly in this spot that the NBA decided to alter its BM, causing the lockout and giving birth to troubled negotiations.

[41] Recall that concessions are "money coming in directly from the use of the teams' arenas (sale of goods, parking spots rents…)"

In short, the broad BM "blocks" did not change, as the main sources of revenue stayed the same, overall.
The big and, for many, unexpected change, which might be considered – wrongfully – a marginal change, is in fact the share of money given to the players, which is now 50%. This small percentage change actually managed to save the economy of the NBA, which was doomed if things had stayed as they were.
This, alongside the money injections coming from well managed deals with sponsors (for instance, new deals with Nike were bargained, substituting Adidas as technical apparel sponsor) and TV broadcasters, revolutionized the league's economy, granting it new life.

Given the relevance of the impact of these deals concerning a few relevant CCI on the NBA economy, in the next chapter an in-depth investigation will be started concerning exactly these.
The aim will therefore be that of helping the reader to fully understand that such – apparently – small changes in the BM actually had a more profound impact than one might think at first, other than more closely tying the BM of the NBA to its most relevant CCI.

CHAPTER 3.
THE NBA & ITS CCI

As we have anticipated earlier, the NBA employs a few Cultural & Creative Industries as main sources of revenue. In fact, as the league is not a publicly traded entity, given its "private business with public features" facet, it has to focus on income sources such as television, merchandising, sponsorships, and ticket sales to stay healthy and profitable. Turns out, TV, merchandising and sponsorships are actually all moneymakers belonging in the CCI macrocosm.
Therefore, this chapter will be devoted to the analysis of the most profitable CCI for the NBA environment, with a particular focus on some larger-than-life deals and unexpected practices which revolutionized this league's economy.
As such, we will start with the description of the impact that the Television Industry had on the league, whose growth went side-by-side that of the NBA.
Following this, detailed insights about the sponsorship environment of the NBA will be given, mainly focusing on some relevant sponsorship deals which innovated the league economy, pushing it to unexpected heights.

3.1: The Television Industry

The television industry comprises all those establishments related to the broadcasting of images and sounds, with the target of reaching a vast public on the basis of a scheduled programming[42]. Revenues here stem from factors such as subscription fees, sales of commercial spaces for advertising and public and private funds.
This industry is a fast-evolving one, and a clear illustration of this situation is given by the NBA environment.
In fact, while up to the '80s the major revenue source for the NBA – and its fellow national sports leagues – was gate receipts, this changed with the fast progression of the TV industry.

[42] "United States Television Broadcasting Services Industry Report", (2019), p.6

Notably, it was also in these years that TV became less of a luxury good and started to be considered a commodity that most households were used to see in their dining rooms.
Notwithstanding this, in the late '70s in US, interest in TV programming was declining, as most people were convinced of the fact that this industry had already made its time. Instead, everyone was proven wrong, for a completely new cycle of innovation and productivity was just behind the corner.
In fact, many relevant new channels debuted on cable-TV in those years, which helped to reignite the interest of households. Broadly, some of these relevant channels were: ESPN (the first ever network entirely devoted to sports broadcast), Cable News Network (CNN, airing news 24 hours a day), and MTV (broadcasting mostly music-related programs).

Now, when considering the TV industry, a differentiation must be made concerning the various types of stations that populate the US. Broadly speaking, we can divide TV stations into two categories: free-to-air-TV and pay-TV.
The first type includes all those networks which are, in most cases, state-owned and are financed mainly through a mandatory fee[43], paid generally once a year by users, commercial advertisings and taxpayers' money. As such, no direct subscription is required by the viewers here.
Lastly, these stations broadcast the so-called "mainstream television" programs, i.e. a variety of shows covering many topics, with no specific focus.
Pay-TV, on the other hand, is a bit trickier to eviscerate, as a univocal definition for this branch has never been reached.
Nonetheless, a clear idea can be given by simply considering an in-category division, thus splitting pay-TV into two other segments: cable-TV and pure subscription-TV.
Cable-TV stations are financed mainly by advertising, and users must pay a – usually small – fee for keeping the subscription going, in addition to an initial installation fee.
Pure subscription-TV stations, instead, are mainly financed by subscription fees, and have the peculiarity of being commercials-free[44].

[43] The fee commonly referred to as "Canone" in Italy
[44] Dietl H., Hasan T., (2007), "Pay-TV versus Free-TV: a Model of Sports Broadcasting Rights Sales", Eastern Economic Journal, vol. 33, issue 3, pp. 405-428

As the difference between these basic types of TV broadcasting industries is now made clear, we can now return to talk about the NBA, whose revenues come from deals made both with public and private broadcasters.

The NBA and its teams started partnerships with television networks in the US since the league's first years.
In 1948 the New York Knicks games were already televised locally[45], but it was just a few years later that the league seized the opportunity to go national.
The 1953-54 season (the league's 8th season) was indeed the first ever nationally broadcasted one: a contract was signed with the DuMont Television Network (a network which dissolved in 1956), which provided for 13 afternoon games to be televised, for a total worth of $39.000[46].
Notably, in these early years, NBA owners were afraid that televising games of the most popular teams would result in lower revenues from gate receipts, as people were realistically expected to prefer watching the game from the comfort of their houses. This led the league to allow for the broadcasting of mostly lower-appeal games.
Similarly, the cities in which the games were physically played in, did not have access to the live broadcast of those games, mostly due to the fear of owners for the loss of tickets and arena revenues.
Clearly, these fears were ungrounded, as televised sports rather increase fanbases[47] and, following this, attendance to live games and TV viewership data are both positively affected.
Eventually, due to the lack of stations to diffuse games, DuMont lost its priority after just one year of exclusivity, folding to the NBC, a network well known still to these days.

NBA NETWORK TELEVISION CONTRACTS

Seasons	Station	Contracts Amount
1953-54	DUMONT	$39,000/13 games
1954-55 to 1961-62	NBC	N/A
1962-63 to 1972-73	ABC	N/A
1973-74 to 1975-76	CBS	$27 million/3 years
1976-77 to 1977-78	CBS	$21 million/2 years
1978-79 to 1981-82	CBS	$74 million/4 years
1982-83 to 1985-86	CBS	$91.9 million/4 years
1986-87 to 1989-90	CBS	$173 million/4 years
1990-91 to 1993-94	NBC	$601 million/4 years
1994-95 to 1997-98	NBC	$892 million/4 years
1998-99 to 2001-02	NBC	$1.616 billion/4 years
2002-03 to 2007-08	ABC/ESPN	$2.4 billion/6 years

Figure 1[45]

Following this, it has since been a jockeying of contracts between the NBA and the biggest names in the US national television industry (see Figure 1): NBC, ABC and

[45] "The News of Radio", The New York Times, issue 19/05/1948, p.54
[46] NBA TV Contracts, (2017), Retrieved from: http://www.insidehoops.com/nba-tv-contracts.shtml
[47] "Sports and TV: What Next?", Business Week, issue 16/06/1956, p.24

CBS, with the rise of ESPN in the 2000s only, placed always higher bids to snatch broadcasting rights from each other, resulting in numbers which were simply unthinkable just about 25 years ago.

Another factor to keep in consideration is the following: in the first years of NBA on TV, networks were not exactly fighting for deals. The league was slow in gaining popularity, and two factors can be considered responsible for this: first of all, the NFL (National Football League) was a strong competitor already, attracting many viewers with appealing broadcasts showcasing high-level teams' games[48]. Secondly, the NBA games were not that enticing at the time, mostly due to the lack of rules concerning ball possessions: in fact, a team could hold the ball for an undefined period of time in order to maintain the lead, thus freezing the action. This eventually led to the implementation of some rules aimed at increasing the pace of play, such as the introduction of the "shot clock", a timer granting any team 24 seconds to shoot the ball to the basket, which, if violated, led to a ball possession change.
Nonetheless, ratings in average audience started increasing from the '60s, and following this, TV deals' value never stopped growing, and it's important to keep in mind that we are not even talking about cable-TV contracts yet.

Speaking of which, the first contact of NBA with cable-TV happened in the 1979-80 season, when a contract covering a 3-seasons period and worth $1.5 million was signed with USA Network (a network owned by NBC, see Figure 2).
The value of this contract is significantly lower than that of the contract the NBA had going at the time with CBS (worth almost $19 million a year), and there are a few main reasons for this: first of all, this was the first year that NBA experimented with cable-TV, and, given this, networks were skeptical about this affair. Moreover, cable-TV was not as popular as it is

NBA CABLE TELEVISION CONTRACTS		
Seasons	**Station**	**Contracts Amount**
1979-80 to 1981-82	USA	$1.5 million/3 years
1982-83 to 1983-84	USA/ESPN	$11 million/2 years
1984-85 to 1985-86	TBS	$20 million/2 years
1986-87 to 1987-88	TBS	$25 million/2 years
1988-89 to 1989-90	TBS/TNT	$50 million/2 years
1990-91 to 1993-94	TNT	$275 million/4 years
1994-95 to 1997-98	TNT/TBS	$397 million/4 years
1998-99 to 2001-02	TNT/TBS	$840 million/4 years
2002-03 to 2007-08	TNT	$2.2 billion/6 years

Figure 2[45]

[48] Legget W., (1962), "Growing to Greatness", Sports Illustrated

nowadays[49], and of course, having lower rates of subscription was not appealing for networks looking forward to engaging a vast public. Also, broadcast ratings for the previous NBA season (1979-80) were not spectacular, following the elimination of regional coverage.

This pattern would change with the passing of the years, as we will soon see, as cable-TV networks typically show a higher number of regular season games than free-TV, other than having the privilege of broadcasting also the NBA Playoffs, all of which results in higher interest by fans.

Nonetheless, a series of unfortunate events for other leagues, such as the lockout in the 1981-82 MLB season, which cancelled half of the regular season, and a strike in the 1982-83 NFL season, which reduced the games to just nine per team from the usual 16, brought to the NBA an unexpected opportunity: the hoops league managed to fill the voids left by these labor stoppages, with the result of a resurgence of fan's interest.

This opportunity, together with the explosion of some young talents (such as hall-of-famers Magic Johnson, Larry Bird, Patrick Ewing and Michael Jordan) and the competitive strive of seasoned veterans (such as Kareem Abdul-Jabbar and Julius Erving) allowed the league to enter its golden age.

These changes in the league easily show us why the value of TV deals skyrocketed in the mid-eighties, and, thanks to the newly gained appeal, the NBA never slowed down ever since.

In fact, the '90s brought even more notable boosts in contracts' value, notably breaching for the first time through the $1 billion ceiling: such was the amount of the contract re-bargained with NBC and starting off from the 1998-99 season (see Figure 1).

Now, the focus of this paper in the next chapter will be also that of studying the correlation between players' salaries and TV deals, among the other factors, starting off with the consideration of deals bargained in the new millennia.

As such, it is now necessary to briefly introduce these deals.

To make things easier, these deals will be now broken down to three broad year periods, all matching the duration of the contracts underwent by the league with various

[49] "SNL Kagan U.S. Cable TV Summary Data", retrieved from https://www.merketingcharts.com/television-2634/attachment/snl-kagan-cable-summary-data-2006

networks: first, the deal starting off in 2002-03 will be considered, then the one covering the 2008-09 to 2015-16 seasons will be analyzed, and, lastly, the ongoing deal which started in 2016-17 and is expected to end in 2025-26 will be brought up.

3.1.1: The 2002-03 to 2007-08 Deal

In the early 2000s the NBA was coming off a brilliant economic period, and, when the TV deals were to be bargained again in these years, the question was simply how much money the league could squeeze out of its long-time broadcasting partners.
For the time period in question, the NBA decided to partner with TNT (cable-TV), ESPN and ABC, signing a contract expected to last for 6 seasons, worth the grand amount of $4.596 billion[50]. This means a yearly average of $766 million in revenues coming solely from the TV industry.
It is worth pointing out, moreover, that $400 million out of the $766 million came from the ESPN and ABC combined, while the remaining $366 million were kindly provided by TNT. The cable-TV value therefore began the common pattern of offering more than its competitors (as the $400 million come from two distinct networks combined), which we've seen was extremely far from happening in the first years of the NBA contracts with this type of broadcasters.

3.1.2: The 2008-09 to 2015-16 Deal

Starting from the 2008-09 season the NBA renewed its contracts with its historical partners: TNT was still the cable network of choice, with the usual suspects ABC and ESPN at its side.
This time around, the average yearly value increased to $930 million[51], baldly ignoring the looming economic crisis. This means $7.440 billion dollars spread along 8 years: up to that point, this represented not only the highest deal ever negotiated by the NBA, but also the longest, as the previous ones reached a maximum of 6 years length.

[50] Lombardo J., Ourand J., (2014), "Fast Break: NBA Media Righs", retrieved from https://www.sposrtbusinessdaily.com/Journal/Issues/2014/10/13/Media/NBA.aspx
[51] Lombardo J., Ourand J., (2014), "Fast Break: NBA Media Righs", retrieved from https://www.sposrtbusinessdaily.com/Journal/Issues/2014/10/13/Media/NBA.aspx

3.1.3: The 2016-17 to 2025-26 Deal

After the steady increase in deals' value, people wondered not when the NBA would surpass the $1 billion/year trademark, but by how much. It did in fact came really close to that threshold with its previous deal, but no one was expecting the boost that it actually experienced: starting from 2016-17, a net **215% increase** happened, with the new deal with ESPN, ABC and TNT crashing through the $1 billion ceiling, all the way to an average yearly amount of $2.6 billion[52].
That would total to $23.4 billion, as the length of the contract was furthermore pushed to 9 years. Of this amount, more than half comes from ESPN and ABC (whose sum amounts to $12.6 billion), thus confirming the new tradition of the cable-TV paying way more for broadcasting rights in the NBA (TNT will benefit the league with a total of $10.8 billion), even though the number of games broadcasted by non-cable networks increased to 100 total regular season games[53].

The takeaway from this rapid increase in contracts' worth is the following: live sports are largely immune to the decline of TV viewership (see Figure 3[54]) that is affecting the television industry worldwide[55], caused by the rise of streaming services, and actually, this represents an opportunity for the NBA to improve even further its economic standpoint.

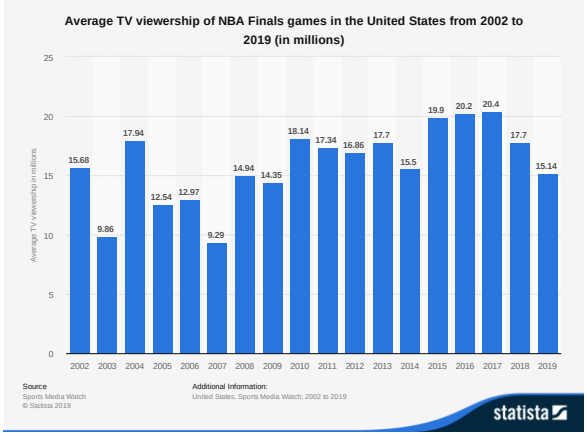


Figure 3

[52] Paulsen, (2014), "NBA Announces 9-Year Extension With ESPN, Turner, Through 2025", retrieved from http://www.sportsmediawatch.com/2014/10/nba-tv-deal-espn-abc-tnt-nine-year-deal-2025-24-billion-lockout/
[53] "NBA TV Deal: How the New $24b Contract Stacks Up Against Other Leagues", (2014), retrieved from https://www.cbc.ca/sports/basketball/nba/nba-tv-deal-how-the-new-24b-contract-stacks-up-against-other-leagues-1.2790143
[54] Source: https://www.statista.com/
[55] Katz A., (2019), "July 2019 Ratings: CNN Sees Noticeable Year-Over-Year Drop-off, but Holds Strong as Top 10 Cable Network in Total Day", retrieved from https://www.adweek.com/

3.2: The Advertising & Sponsorship Environment

The improvement of TV deals and viewership data in US basketball tells us that this sport is as attractive to sponsors and advertisers as ever.
Furthermore, the NBA nowadays is generally seen as a more youthful league with a younger fanbase, also due to the rapid and explosive pace of play; notwithstanding this, advertisings are traditionally filling many in-game time slots, especially during time-outs, whose length range from 20 to 60 seconds[56], a factor that apparently contrasts the rapid flow that an NBA game is expected to have.
Therefore, time-outs are fundamental for the league's economy, providing precious advertising slots. So much so, that in 2017, the new NBA commissioner (a figure which can be seen as a CEO for the league) Adam Silver ruled the reduction of time-outs available to teams during games, from a maximum of 18 to 14 a game[55,57], with the aim of increasing viewer experience.
This obviously reduces the number of commercial breaks available to advertisers, but Mr. Silver did not actually leave any money on the table when he adopted this change. Meaning, he did not choose to give up advertising money altogether simply to benefit viewers: in fact, starting from 2017, advertisements were placed on teams' jerseys, something that has never been done before.

But let's not get ahead of ourselves, and let's consider things in order.
First of all, the main focus of this paragraph will be the sponsorship environment, and not the advertising one, at least not directly. This will happen for a few main reasons: gathering data from advertising is a particularly hard task, given that an insane number of companies manages to place advertisements in dedicated spots, and, most importantly, the value of these is actually undisclosed most of the times.
If we consider sponsorships, instead, there are many broad categories that will allow for a thorough analysis, notwithstanding the fact that the value of these can be reliably found in dedicated websites and articles.

[56] Aschburner S., (2017), "NBA Changes Timeout Rules to Improve Game Flow", retrieved from https://www.nba.com/
[57] Boudway I., (2016), "Adam Silver", Bloomberg Businessweek, issue 4486, pp.68-69

Now, after a brief introduction to the sponsorship microcosm in the NBA, three main points will be considered: first of all, the biggest sponsors in the league will be exposed (who are these, how their deals came to be); secondly, the afore-mentioned "jersey advertisements" novelty will be analyzed; lastly, a final paragraph concerning the extent to which a sponsor is willing to keep sponsoring in the NBA environment will be discussed.

3.2.1: Brief Introduction to the NBA Sponsorship Environment

With the growing popularity of the NBA[58], it is no surprise that the league is so enticing to companies all around the world, which are willing to pay millions of dollars to see their brand names shown in teams' arenas during games.
Sponsorship is indeed an ultimate form of advertising, and companies are well aware of the value of associating their names with a sport as popular as the NBA basket, whose fans reportedly stated to be willing to actively consider for purchase, or even simply information, a brand sponsoring their favorite sport[59].
Ultimately, that's what sponsoring is all about, as this is just a *form of advertising in which an organization provides funds for something such as a television program or sports event in return for exposure to a target audience*[60].

We have already hastily seen, throughout the course of this paper, that there are many ways in which a sponsorship can appear to the public: from simply providing the league with necessary assets to the development of actual games – such as basketballs (Spalding), footwear (Adidas), on-court outfit (Nike), timekeepers (Tissot) – to players-directed goods – such as sports drinks (Gatorade), soft drinks (PepsiCo), headphones (Beats) – to the naming of whole stadiums (AmericanAirlines Arena in Miami), the possibilities are endless.

[58] Katz A.J., (2018), "Why the NBA Has Got Game", Adweek, vol. 59, issue 4, p. 6
[59] "The NBA's Growing Popularity Scores Wins for Sponsors", (2018), retrieved from https://www.nielsen.com/
[60] Bloomsbury Business Library – Business & Management Dictionary, 2007 edition, p. 6981

This vastity of application for sponsorships led the league to constantly increase its revenues from this sector, recording a 109% improvement in the span of not even a decade (see Figure 4[61]).

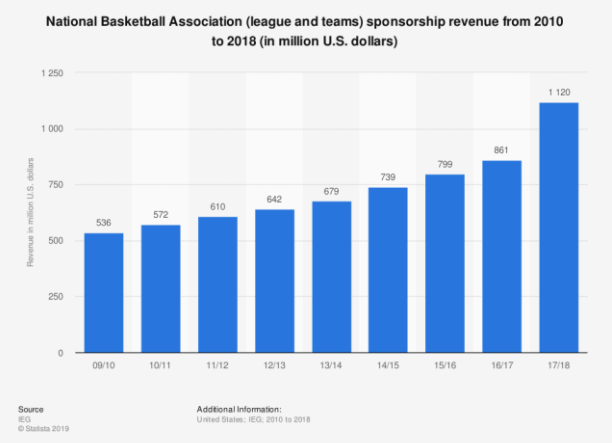


Figure 4

The 2017-18 season marked the first time NBA sponsorship ever topped $1 billion, notably increasing the previous year revenue by 31%, also thanks to the introduction of jersey patches.
This rapid improvement also placed the NBA in the second place in US for sponsor spend in sports, finally surpassing MLB (which in 2017-18 recorded $892 million), but still trailing the NFL, which stayed the top dog at $1.25 billion[62].

Worth noting, over the course of the last 15 years, the portfolio of sponsors in the NBA stayed roughly the same, with the consumer staples[63] and consumer discretionary[64] categories fighting for the biggest shares of sponsorships.
Nonetheless, the most active category in this environment has been insurance[65], with companies such as State Farm being extremely active here, followed by car manufacturers (Lexus, Kia, Toyota) and quick service restaurants (Papa John's, McDonald's), confirming the same trend that has been building up in the last decade.

3.2.2: Relevant Sponsorships

It is now useful to stop for a second, and consider two huge "sponsorship battles" that stormed the league over the course of the last 20 years: the one between Adidas and

[61] Source: https://www.statista.com/
[62] Roberts D., (2017), "As NFL Falters, MLB Sponsors Spent Record-High $892 Million", retrieved from https://finance.yahoo.com/news/
[63] For "consumer staples" we mean essential products that people are not willing to cut out of their daily expenses. Examples are: food, beverages, hygiene products, alcohol, tobacco.
[64] For "consumer discretionary" we mean goods whose purchase people are willing to forego in order to save money. Examples are: new cars, new clothes, leisure products.
[65] Chipps W., (2018), "Sponsorship Spending On The NBA Totals $1.12 billion in 2017-18 Season", retrieved from https://www.sponsorship.com/

Nike for the technical apparel sponsor of choice, and the one between Coca-Cola and PepsiCo for the league's official soft drink provider, which will also be useful to keep in mind in view of what will come in the next chapter.

3.2.2.1: Nike vs Adidas

Over the course of the last two decades, the NBA jockeyed between three major sports apparel brands as the provider of official jerseys and shorts for all of its teams, these being: Adidas, Reebok (which was acquired by Adidas in 2006) and Nike.
First of all, it has to be noted that it is not unusual in major US sport league that a single brand provides uniforms to every single team in that league: it so happens in the NHL, with Adidas providing sweaters to all 31 teams since 2017, the NFL, with Nike being the chosen gear supplier, and in the MLB, with Under Armor set to provide clothing until 2020, when Nike will reportedly take its place[66]. Now, this does not happen instead in most European professional sports league, where single teams have the right to bargain their own deal, and the rationale for this is simply the Franchise Business Model underlying the US professional sport leagues, where revenues from apparel sponsors get pooled together only to be then distributed evenly to all teams, thus increasing the competitiveness of the league in question.
Back to the NBA: following the 2016-17 season, to the surprise of many, Adidas decided it would not sit to bargain a renewal of the 11-year deal it started with the NBA back in 2006, which granted the league a total amount of $400 million, approximatively $36.4 million a year[67]. Why? Simply, the returns to the German company did not met the expectations[68], with sales slowing down, making it fall to the third place in the US market, trailing the rising Under Armor and the evergreen Nike.
Furthermore, a peculiar feature of the contract with the NBA that many managers at Adidas for sure did not like, was that of the company's logo: it was not allowed to appear on game uniforms[69].

[66] Bell D., (2018), "Nike Reportedly Set to Become Major League Baseball's Uniform Supplier in 2020", retrieved from https://www.forbes.com/
[67] Kell J., (2015), "Adidas Won't Renew its NBA Apparel Contract", retrieved from https://fortune.com/
[68] Zillgitt J., (2015), "Adidas Will Give Up NBA Jersey and Apparel Contract", retrieved from https://eu.usatoday.com/
[69] Ryan T.J., (2006), "Adidas Signs 11-Year Deal With The NBA", SGB, vol. 39, issue 5, p.9

This image loss was due to the will of the league to maintain the identity of the teams on their jerseys, factor that prevented the application of sponsors patches as well (up to 2017), and it is a limitation whose impact should not be underestimated.
Therefore, when Nike managed to sign an 8-year, $1 billion contract starting from the 2017-18 season[70], it made sure that the iconic swoosh would appear on every single one of the 30 NBA team's uniform[71], with one curious exception. On the Charlotte Hornets' players' jerseys there is no swoosh, but rather a jumping man (see Figure 5[72]), official logo of the Nike's own "Air Jordan" brand, since one of the owners of this team is none other than Michael "Air" Jordan himself.

Figure 5

Overall, the deal Nike made turned out to be much more profitable than many thought it would be[73], especially thanks to the jersey patches innovation (see par. 3.2.3).

3.2.2.2: Coca-Cola vs. PepsiCo

Coca-Cola has been an historical partner with the NBA, as it started its sponsorship presence back in 1986[74]. This partnership materialized in the form of sponsorships, such as the "Sprite Slam Dunk Contest" (the famous contest during the All-Star Game Weekend in which the best athletes in the league compete to perform the most spectacular dunks possible), but also by simply providing soft-drinks to the teams.
It is worth noting here, that the value for this long-lasting sponsorship has never been officially disclosed, so we will have to rely on estimates.
Apparently, by 1998, year in which Coca-Cola renewed its partnership with the NBA, the company was spending about $100 million annually on the sport[75], amount that it is expected to be perpetrated over the course of the next deal successively bargained.

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[70] Germano S., (2015), "Nike Wins $1 billion Deal for the NBA Jersey", Wall Street Journal – Eastern Edition, vol. 265, issue 135, p.B1
[71] Garcia A., (2017), "Fast Break: Nike's New NBA Jerseys Keep Ripping Apart", retrieved from https://www.money.cnn.com/
[72] "NBA, gli Hornets Presentano le Nuove Maglie", (2017), retrieved from https://calcioefinanza.it/
[73] Roberts D., (2015), "Did Nike Overpay for Its NBA Apparel Contract?", retrieved from https://www.fortune.com/
[74] "Coca-Cola Sponsorships: NBA", (2012), retrieved from https://www.coca-colacompany.com/
[75] Fatsis S., (1998), "NBA, Coca-Cola Say They Are Committed to Long Partnership", Wall Street Journal – Eastern Edition, vol. 231, issue 111, p.B8

However, after 28 years, the Coca-Cola company, much similarly to what Adidas did, spontaneously decided it would not renew its contract as the league's exclusive beverage partner.
In fact, the company decided it would rather focus on its "most effective and efficient investments"[76], hence implying that being the exclusive NBA soft-drink supplier was not a good enough investment, as of 2015. Notwithstanding this, not long after having dropped the NBA, Coca-Cola decided to console itself by signing a sponsorship deal with the US soccer league, instead, thus becoming the Major League Soccer's (MLS) official beverage partner[77].
Now, who chimed in after Coke's fold? Obviously, its archenemy PepsiCo.
This partnership was built on the basis of the relationship the NBA already had with Gatorade, which is actually the league's oldest partner, other than being part of the Pepsi Company[78]. As such, the relationship between Gatorade and the NBA did not get affected by the deal of its mothership[79].
Concretely, this deal is worth more than the previous with Coca-Cola in terms of overall installment, as it will make all of Pepsi brands part of the US pro basketball environment[80] (Mountain Dew and Pepsi beverages, Lay's and Doritos potato chips, among the others), and, given the estimated amount of that deal (an average of $100 million/year), we are not exactly talking about pennies right now.

3.2.3: Jersey Patches

Following some particular time-outs rule changes that decreased the amount of time dedicated to TV ads to be broadcasted during these short breaks, the league knew it had to do something to not give up any money, and potentially, increase its position.

[76] Morton A., (2015), "The Coca-Cola Co Calls Time on NBA Sponsorship, PepsiCo Steps In", Aroq – Just-Drinks.com (Global News)
[77] Morton A. (2015), "The Coca-Cola Co Swaps NBA For Soccer with US Sponsorship Deal", Aroq – Just-Drinks.com (Global News)
[78] "PepsiCo Join Forces", (2015), License! Global, vol. 18, issue 2, p.28
[79] Schultz E.J., (2015), "PepsiCo Replaces Coca-Cola as NBA Sponsor", retrieved from https://www.adage.com/
[80] "NBA Drops Coke, Signs Up Pepsi as Exclusive Beverage", (2015), retrieved from https://www.domain-b.com/

Therefore, on April 12th, 2016, a board meeting of NBA team owners and league governors approved a 3-year trial project giving the ability to single teams to sell jersey patch advertising[81], starting from the 2017-18 season. This means granting teams the unpreceded ability to place a 6-by-6-cm patch (2.5-by-2.5-inches) on the top left space of jerseys, up to that moment left empty, and, most relevantly, the right to bargain the deal with whomever they prefer with no interference by the league.
There was only one limitation: for the first iteration of this particular form of advertising, Nike, the official uniform supplier, whose logo is showcased on the right side of the jerseys, ruled that tobacco, spirits, gambling and political-related companies will be restricted, but also Nike's competitor sport apparel companies[82]. Meaning, no company operating in any of those sectors could land a deal, in what I would define as a well-disguised form of "competitors' exclusion".

Now, a common misconception of the public when this novelty was introduced was that teams did not want to alter the image of their jerseys and the identity of the cities they represent, by showcasing lifeless sponsor badges on the chests of their players, but it actually was all just a matter of time.
Many teams were in fact sluggish to conclude deals, but the rationale for this had nothing to do with teams' identities. It was all more a matter of money.

Figure 6

Given that this was all new, in fact, teams did not want to conclude a deal for $1 million/year when they knew that by waiting a few more months they could conclude one for $5 million/year. They simply wanted to jump in when ready[83].
Nonetheless, some bald ones took the plunge immediately, announcing sponsorships of various amounts: the first ever deal was concluded by the Philadelphia 76ers, who partnered way back in May of 2016 with resale ticket giant StubHub (see Figure 6[84]),

[81] Kuchefski K., (2019), "The NBA Will Allow Teams To Sell International Sponsorship Rights In An Effort To Create A More Profitable Revenue Stream", retrieved from https://www.medium.com/
[82] Lefton T., Lombardo J., (2019), "NBA: Big Payoff For a Little Patch", retrieved from https://www.sportsbusinessdaily.com/
[83] Lefton T., Lombardo J., (2016), "NBA Jersey Ads Not An Easy Sell", retrieved from https://www.sportsbusinessdaily.com/
[84] Source: https://www.nba.com/sixers/

for a 3-year deal worth $5 million/year, immediately followed by the Sacramento Kings, signing with Blue Diamond Growers – an almond producer – for $5 million/year as well.[85]
Overall, by the end of the 2018-19 season – the second season of the trial period – every single NBA team had landed a deal, with the Oklahoma City Thunder being the last one, signing up with "Love's Travel Stops" in March of 2019[86] for a 4-year partnership worth $10 million/year[87], which places itself among the top 10 highest patches sponsorship in the league.
Apparently waiting for the right time to secure the perfect deal actually paid off.

Detailed financial terms of every single deal were not disclosed by the NBA, maintaining its historic line of privacy concerning economic deals, but estimates place the lower end of these deals close to $2 million, with the upper end being $10 million[88], even though there's an outlier: the Golden State Warriors (NBA champions at that time, hence, extremely appealing to sponsors) secured a deal worth $20 million/year with Japanese e-commerce giant Rakuten[89].

The hope of the NBA, now, is that of raising well over $150 million a year with the jersey ads of all teams, target which is actually extremely realistic, since the first 29 jersey patch deals brought in the league's bank account that amount[84].
All this money, in line with what happens with regular BRI (see chapter 2), is then set to be split equally between the team who scores the deal and a common revenue pool, from which it will be then evenly distributed to all of the 30 NBA teams.
Notably, during this trial period, the value of these deals has been so much shockingly lower than typical sponsorship deals of European football clubs.

[85] Brautigan B., (2017), "Photos And Details For Every NBA Jersey Patch Sponsorship Deal", retrieved from https://www.forbes.com/
[86] Crain N., (2019), "Oklahoma City Thunder Hit The Jackpot With Jersey Patch Partnership", retrieved from https://www.forbes.com/
[87] Levy J., (2019), "Love's With US$40m New Patch Sponsor", retrieved from https://www.sportspromedia.com/
[88] Lewis A., (2017), "NBA Shoots (and Scores?) With Ads on Uniforms", Hollywood Reporter, vol. 423, issue 5, p.20
[89] Lowe Z., (2019), "OKC's Jersey Patch Deal Completes Sponsorship For All 30 Teams", retrieved from https://www.espn.com/

Just consider this: in 2014, Manchester United renewed its shirt sponsorship deal with General Motors (which makes the team showcase Chevrolet's logo) for approximatively $559 million in 7 years, nearly $80 million a year[90].
Obviously, this difference depends on many factors, and let's not forget we're talking about a trial period still, whose effects on the public are under scrutiny.

Eventually tough, the question that both NBA and teams' sponsors asked themselves was: is all of this worth it? Short answer: it is.
According to sports media valuation company GumGum Sports, this new advertising opportunity is extremely profitable for sponsors, which will be able to generate over $350 million in social media value. This means that by simply exposing their logo on jersey, sponsors are obtaining a value in return equivalent, and even higher, to what they would have to pay in order to generate the same exposure on alternative branding activities (such as placing their logo on the sidelines of the basketball court)[91].
Looking at things from the NBA's point of view instead, well, things are going great. The 2017-18 season – i.e. the first season of jersey patches – has been the first in which sponsorship spending topped $1 billion, raising from $861 million to $1.12 billion, a 31% increase in the span of just one year[92], and that was when not even all of the 30 teams showcased a patch. Obviously, the merit here does not go entirely to this novelty, given that the league has been steadily growing in this sector, but it definitively contributed to a significant amount for the reaching of this threshold.

All of this eventually implies that, once this trial project will be renewed (everything suggests that it will be, there are no apparent reasons why it shouldn't), teams can aim for much more valuable deals, which will make the current ones look like little kid money in a few years' time.

[90] Gladwell B. (2014), "Emirates Airline Renews AC Milan Shirt Deal", retrieved from https://www.espn.com/
[91] Data retrieved from https://www.scoreboard.gumgum.com/
[92] Chipps W., (2018), "Sponsorship Spending On The NBA Totals $1.12 billion In 2017-18 Season", retrieved from https://www.sponsorship.com/

3.2.4: Retention of Sponsors in the NBA

One sponsor might say, OK, I've finally managed to secure my long-sought deal with the biggest basketball league in the world, the NBA. That's great. But will I be able to keep it? And, most importantly, will I *want* to keep it?
While the answer to the first question mostly depends on how good the marketing section of a company is in dealing with the NBA's – or single teams' – front offices, we've just seen the case of jersey patches, and that particular case provides a positive answer to the second question.
What we are interested in understanding now is the following: is this always the case? The retention of sponsors is not always a factor to be taken for granted in the NBA, as we've notably seen giants such as Coca-Cola and Nike consciously deciding not to renew historic deals, choice that at a first glance might seem simply insane. Who doesn't want to sponsor the biggest stage in the world as far as basketball is concerned, after all. Well, there are many reasons why one sponsor might be willing not to come back, and that's exactly what this paragraph will be all about, thus focusing on what the league can do to try and keep its corporate sponsors.

More often than not, retention of sponsors in sports is associated with the success that given team is having in a given period of time. The higher the winning percentage of said team, in fact, the more likely fans are to stay engaged in games and various dedicated initiatives[93].
As such, sponsors will be more likely to keep sponsoring a team if it is successful, but also on the basis of the level of the team's corporate sales section, whose main objective is that of focusing on customers, in order to educate them about the team's customer-directed efforts.
Following this, a poorly informed customer is not a profitable source, which implies that corporate customers' education – which is defined as *any […] learning activity that is designed to impart attitudes, knowledge or skills to customer or potential customers*

[93] Lachowetz T., McDonald M., Sutton W.A., Hedrick D.G., (2003), "Corporate Sales Activities and the Retention of Sponsors in the National Basketball Association (NBA)", Sport Marketing Quarterly, vol. 12, issue 1, p. 18

by a business or industry […][94] – is key in the NBA economy just like in any other economic environment.

Therefore, the retention of sponsors is strictly tied to the success of the sales process (measured through customer retention rates), which in turn depends heavily on the level of relationship built with the target customer, other than customers' own education[95]. Notably, tough, the level of success of the whole league in the analyzed period is also a significant driver of sponsors' willingness to stay.

As such, given that the NBA is the one who has to make the final step (by deciding which sponsorship to accept), it is extremely hard for marketing managers working in this environment to choose wisely.

In order to help with the issue of customer education, which we've just seen being the key to sponsors retention, in the early 2000s, a period in which the uncertainty about the league's success was extremely strong, a nine-step framework called "eduselling" (see Figure 7[96]) was developed by Sutton et al[93]. This model is aimed specifically at professional sports leagues, and seeks to enhance the sales efforts of these, eventually helping in perpetrating profitable sponsor partnerships.

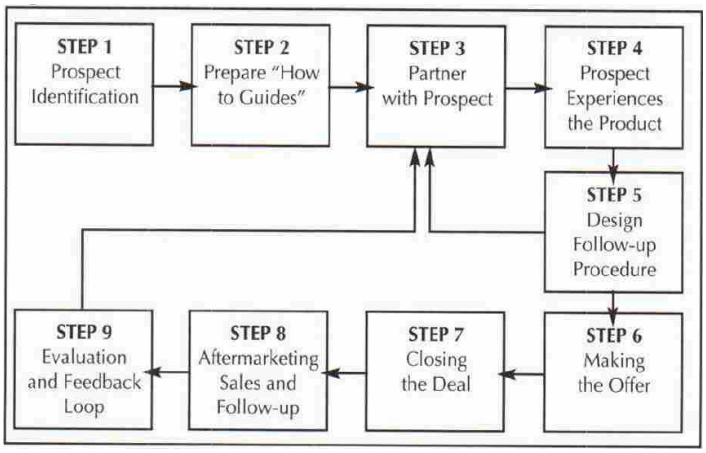

Figure 7

"Eduselling" actually means selling and building customer education and relationship: the level of knowledge a customer has of the company in question needs to be deep in order to create a strong connection, and every step of this framework provides a deeper understanding for the customer, while shaping this much needed bond.

[94] Meer C.G., (1984), "Customer Education", Rowan & Littlefield Publishers

[95] Sutton W.A., Lachowetz T., Clark J., (2000), "<<Eduselling>>: The Role of Customer Education in Selling to Corporate Clients in the Sport Industry", International Journal of Sports Marketing and Sponsorship, vol. 2, issue 2, pp. 145-158

[96] Lachowetz T., McDonald M., Sutton W.A., Hedrick D.G., (2003), "Corporate Sales Activities and the Retention of Sponsors in the National Basketball Association (NBA)", Sport Marketing Quarterly, vol. 12, issue 1, p. 19

This starts with (1) prospect identification and targeting: this is mostly dedicated to account executives, who need to be informed about potential customers' needs and wants, in order to identify proper sponsors and initiatives to adopt.
Following this, (2) some guidelines concerning sponsorship opportunities need to be set: having all the different options under sight is useful to develop new opportunities.
Then, (3) determining the most efficient ways in which the organization in question (the NBA in our case) can partner with the prospect sponsor is the following step: it is important to consider all the objectives set and create programs that meet the business' needs. Next, (4) the decision-maker – i.e. the fan – has to test the product, which might mean visiting a live game and experiencing in first person the environment, providing useful feedback about the tested sponsor and the initiatives it fosters (which in the NBA case might mean the introduction of new fan-involving sponsored half-time shows).
After the experimentation process, (5) a follow-up procedure needs to be implemented: thanks to the feedback obtained from step (4), executives can add value to the overall deal, modifying ideas by, for instance, directly suggesting to sponsors how to activate their sponsorship programs.
Now, logically, a concrete, financially sound sponsorship offer has to happen (6), outlining the strategies to be employed, before closing the deal (7).
Nonetheless, it is mainly the account executive of the league the one in charge of constructing an appropriate strategic plan for the sponsor (8), including a detailed action plan, showcasing what the expectations on the sponsor are in order to bring on this partnership, which is eventually evaluated (9).
At the end of all this, the customer, thanks to its active role in this process (by actively testing the product – i.e. the game environment in our case – while in development), is informed about all of his opportunities and, in turn, makes the league informed about his needs, thus allowing for a never-ending process of improvement.

Over the course of this chapter, we've seen how the TV industry works in the NBA environment and how the sponsorship industry deals with the NBA, and, before this, how the NBA as a whole works.

It is now time to put everything together and start analyzing some numbers more concretely, leaving theory aside and getting into some more explicit data and original estimates about the league's future, introducing some relevant factors to the equation, such as players' salaries, and their relationship with all the other economic factors considered up to this point.

CHAPTER 4.

STUDY ON CORRELATION BETWEEN PLAYERS' SALARIES & CCI

Throughout this next chapter, a statistical analysis will be carried out, concerning three main points of question:

1) Is there a correlation between the ever growing CCI analyzed and the players' salaries?
2) If there's any correlation, how strong is this?
3) How will – and should – the league's BM evolve on the basis of this?

To understand this, first an analysis about the league's economy as a whole will be carried out (thus putting together all of the data mentioned up to now), and this will be done considering 3 time periods, whose relevance will be soon defined: from the 2003-04 NBA season to the 2010-11 (season after which the lockout situation broke out), from the 2011-12 season (the lockout season) to the 2018-19 season (last season up to this point), and, lastly, in the next chapter, a discussion about the 2019-20 to 2026-27 period (next 8 years, for consistency with the previous two time spans scrutinized) will be started.
Now, this 8 year division has been chosen in order to establish a pattern: considering the 8 years prior to the NBA lockout will allow for a deeper study about how the league's economy has been in the years preceding this relevant turning point; then, the 8-year period starting directly with the lockout season and leading up to the last 2018-19 season will be useful to analyze, in that it communicates the most immediate and relevant changes the league experienced after the 2011 work stoppages and consequent renovation of its BM; then, an estimate about how the league will evolve in the next 8 years, considering possible new economic deals in addition to the ones already running, will be compounded.

Now, as the "players' salaries" topic has never been addresses up to this point, and it will be a key element for what this chapter will want to prove, let's start with that, briefly mentioning how these evolved in the decades preceding our scrutinized years,

and also considering how these evolved in the 2000s, up to the 2018-19 season, before jumping into some more concrete analysis.

4.1: The Evolution of NBA Players' Salaries

Before starting out this introductory paragraph concerning the evolution of NBA players' salaries, a due premise needs to be stated first: not every single season of the league since its inception will be taken into account here.
Instead, considerations will be made involving salaries from the 1990-91 season onwards, and the reason for this is fairly straightforward: specific data concerning salaries in seasons prior to the one just mentioned are impossible to retrieve.

Now, let's not forget that players' salaries are decided upon signature of their contract with the team, but these are also enhanced by the share of BRI the players receive[97].
If we take a look at Table 1[98], we see that there's clearly a growing pattern in the average salaries, which in 1991 amounted to $868.530, and rose all the way up to nearly $8 million in 2019. The rationale for this has to be searched in many factors, and it will be one of the objectives of this chapter to find out what these are.

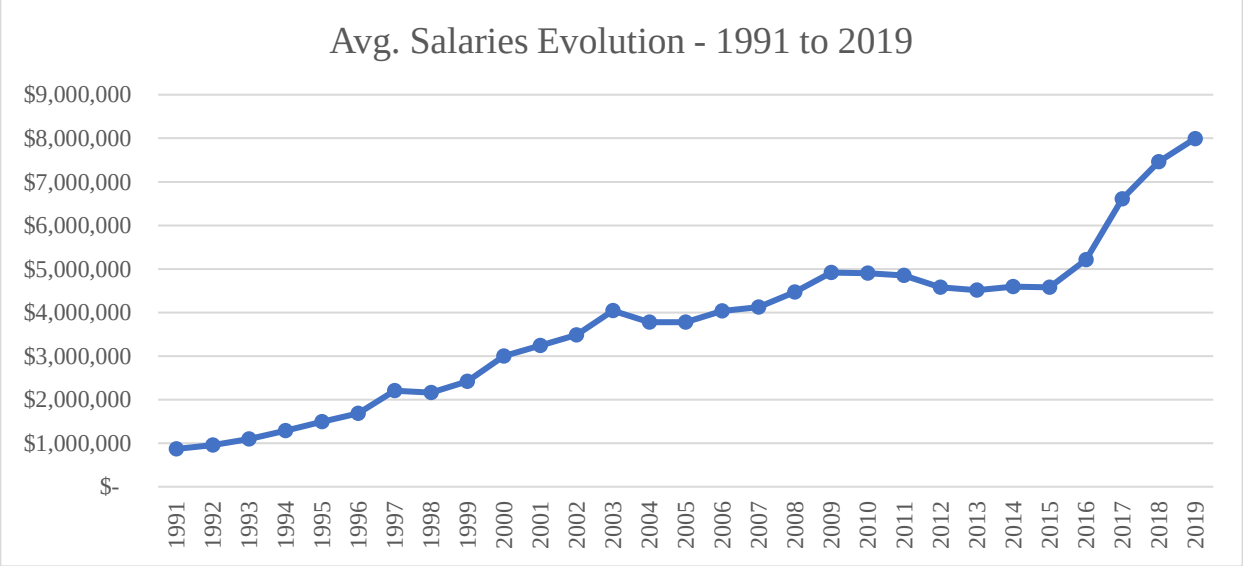

Table 1

[97] See par. 2.2
[98] Data references: https://www.eskimo.com/; https://www.celticshub.com/; https://www.basketball-reference.com/; https://www.hoopshype.com/

As such, let's just focus for now on a few years, which are worth analyzing.
Before doing that, though, it is necessary to point out how these averages have been computed.
Data has been collected concerning the salaries paid by every team in each of the seasons considered[99] (which have been summed up in order to get the total amount of salaries paid to NBA players in every given season), and the number of players enrolled in the NBA in the corresponding season, task that required the consultation of many web sources[100], which nonetheless have been proven to be reliable and extremely consistent with one another. After this, a simple ratio between the totals of the salaries for each year and the number of players enrolled in the NBA in the same year has been calculated, thus obtaining the overall average of the salaries.

Now, back to the relevant periods worth pointing out: first of all, let's consider the small growth inflection between the 2003-04 season and the 2004-05 season.
The growth in average salaries has been steady over the course of the '90s, to the extent that averages were expected to stabilize in the $4 million range starting from 2004-05, and thus this slowing-down seems particularly odd, at a first sight.
It is, conversely, extremely straightforward, once we notice that starting from the 2004-05 season – the "inflection" season – a new team has been added to the league: it was in this season that the NBA finally managed to get its 30th team, welcoming the Charlotte Bobcats among its lines. The introduction of this new franchise caused the number of players to increase significantly (from 413 players in 2003-04 to 441 in 2004-05[101]), and this unusual growth, paired with the inability of the new team in its first year to offer contracts as high as its competitors, made the average salaries growth pause.

Secondly, the hovering of the average salaries in the $4-to-$5 million range from the 2008-09 season up until the 2015-16 season is of particular interest.
This period of lackluster growth is also reflected by the lack of growth in the dimension of the Salary Cap[102], which has been following a generally growing trend since the '90s,

[99] Only salaries of players earning the league's minimum wage every year have been considered
[100] For these data the NBA does not provide official disclosure
[101] Data source: https://www.eskimo.com/
[102] See parr. 2.1.1 & 2.2

following the constant improvements in Basketball-Related Income, as shown in Table 2[103]. In 2009, tough, for the first time in six years, and the second time in the Salary Cap's 26-year old history, the NBA decided it would drop it by $1 million, lowering it to $57.7 million from the $58.7 million of the previous season[104]. The stagnation in these two datasets mostly depends on the Recession that hit economies all around the globe in 2008, showing us that the NBA, as prosperous as it was back then, still suffered from this situation[105]: for one, the annual average number of visitors per game decreased from the 2006-07 season to the next one[106].

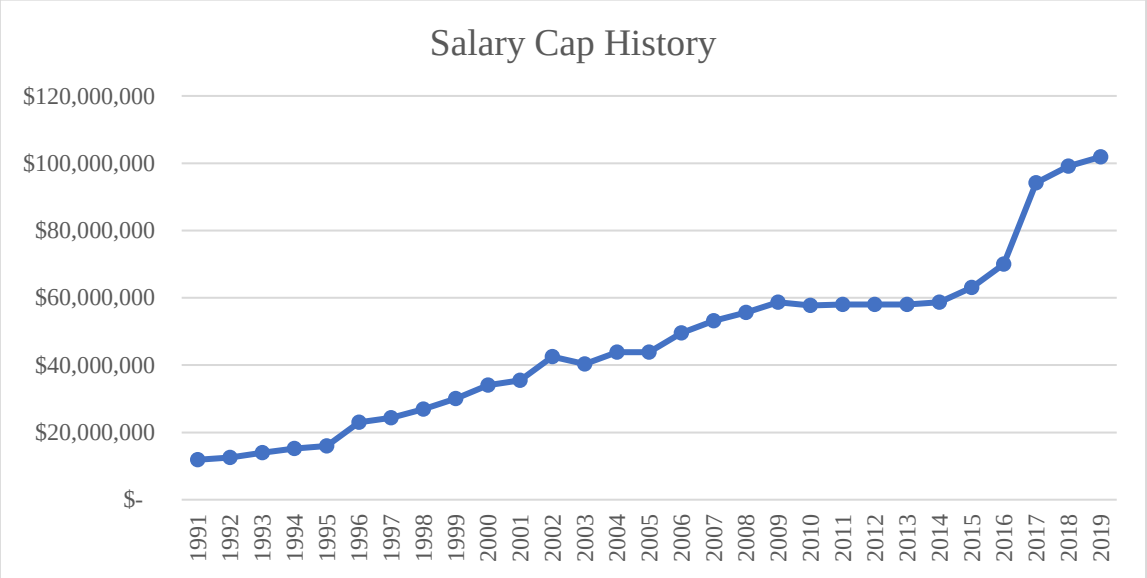

Table 2

Lastly, another interesting trend started in 2016-17, when a steep growth in both average salaries and Salary Cap dimension burst out. This, as we will see more in depth over the course of this chapter, was pushed mainly by the unusual increase in BRI (which directly affects the dimension of the Cap), following the signing of the new TV deals in 2016 worth nearly 3-times the previous one.

There's just one more evidence worth mentioning about the average salaries in the NBA: these are the highest among the top 4 professional sports leagues in the US.

[103] Data source: https://basketball-reference.com/
[104] Biderman D., (2009), "Just Like Wall Street: NBA Salaries Trimmed", Wall Street Journal – Eastern Edition, vol. 254, issue 7, p. D8
[105] Curcic D., (2019), "The Ultimate Analysis of NBA Salaries", retrieved from https://www.runrepeat.com/
[106] Vaczi P., (2013), "What Kind of Effect Had the Global Economic Crisis on the Attendance of the NBA Games?", Applied Studies in Agribusiness and Commerce, vol. 7, pp. 141-146

As of 2019, in fact, NBA players average nearly $8 million ($7.992 million to be precise), while MLB players earn an average of $4.36 million[107], NHL players go for $2.78 million[108], and NFL players are just below the $3 million threshold[109]. This is mainly due to the much lower number of players allowed to play in the NBA with respect to the other 3 pro leagues: while the NBA has 30 teams, the maximum number of players allowed to be listed on a team's roster is just 15. The MLB, instead, includes 30 teams, but the maximum number of players allowed to be active in a team's roster is 25 (soon to be expanded to 40 starting from the 2019-20 season). The NFL, instead, allows its 32 teams to employ a maximum of 53 players, while the NHL limits its 31 teams to a maximum of 23 players.
As such, it's easy to see that in environments with similar economic capabilities, the one with less workers is the one which pays them better.

4.2: Inflation in NBA Economy

One factor that has not been mentioned while enumerating a variety of deals, sponsorships and salaries, but which is worth considering before moving on to the analytical part of this paper, is the effect of inflation on these data.
Inflation is defined as *a sustained increase in a country's general level of prices that devalues its currency, often caused by excess demand in the economy*[110], while the inflation rate is the *rate at which general price levels increase over a period of time*[111]: this simply means that a given amount of money from, say, 20 years ago is, in most cases, not worth the same today.
In the NBA case that we are about to retrieve, in fact, a dollar from any of the years preceding 2019 is worth more than a dollar in 2019.
To better understand this, however, an inflation adjustment procedure needs to be performed.
Inflation adjustment is, in fact, necessary to understand how the value of the deals in the

[107] Barrabi T., (2019), "MLB Average Salary Drops for 2nd Straight Year Despite Record Contracts", retrieved from https://www.foxbusiness.com/
[108] Source: https://www.statista.com/
[109] Source: https://www.statista.com/
[110] Bloomsbury Business Library – Business & Management Dictionary, (2007), p. 3871
[111] Bloomsbury Business Library – Business & Management Dictionary, (2007), p. 3878

years in which have been signed compares to the value of money in 2019.
Inflation adjustment removes the effects of price inflation from data, and that's why we are going to perform this in this paragraph, in order to have a sounder understanding of the growth in all the economic data mentioned.

4.2.1: Adjusting for Inflation – Methodology and Comments to the Results

The calculations for inflation adjustment have been fairly straightforward, in that the Bureau of Labor Statistics of the US Department of Labor, in its official website[112], provides for an official inflation adjustment procedure, automatically computing inflation effects through a very useful "CPI Inflation Calculator".
As such, the following data have been obtained, concerning the Salary Cap and the Average Salaries:

Year	Average Salaries	Average Salaries (Adjusted Aug. 2019)
1991	$ 868.530	$ 1.679.188
1992	$ 952.531	$ 1.781.191
1993	$ 1.091.568	$ 1.981.957
1994	$ 1.289.522	$ 2.280.063
1995	$ 1.489.363	$ 2.557.617
1996	$ 1.684.343	$ 2.820.702
1997	$ 2.201.839	$ 3.579.844
1998	$ 2.160.679	$ 3.438.831
1999	$ 2.420.528	$ 3.795.879
2000	$ 3.000.307	$ 4.584.591
2001	$ 3.240.868	$ 4.786.820
2002	$ 3.486.807	$ 5.017.208
2003	$ 4.043.176	$ 5.730.990
2004	$ 3.774.460	$ 5.228.768
2005	$ 3.778.738	$ 5.105.137
2006	$ 4.033.486	$ 5.205.348
2007	$ 4.124.308	$ 5.215.004
2008	$ 4.468.723	$ 5.499.000
2009	$ 4.919.808	$ 5.769.260
2010	$ 4.898.903	$ 5.819.598
2011	$ 4.852.351	$ 5.699.117
2012	$ 4.577.246	$ 5.175.787
2013	$ 4.514.491	$ 5.005.159
2014	$ 4.590.331	$ 5.029.644
2015	$ 4.581.145	$ 4.937.716
2016	$ 5.209.609	$ 5.617.125
2017	$ 6.605.968	$ 7.019.956
2018	$ 7.460.850	$ 7.755.241
2019	$ 7.992.048	$ 7.992.048

Table 3

Year	Salary Cap	Salary Cap (Adjusted Aug. 2019)
1991	$ 11.871.000	$ 22.950.000
1992	$ 12.500.000	$ 23.374.000
1993	$ 14.000.000	$ 25.420.000
1994	$ 15.175.000	$ 26.832.000
1995	$ 15.964.000	$ 27.414.000
1996	$ 23.000.000	$ 38.517.000
1997	$ 24.363.000	$ 39.610.000
1998	$ 26.900.000	$ 42.813.000
1999	$ 30.000.000	$ 47.046.000
2000	$ 34.000.000	$ 51.953.000
2001	$ 35.500.000	$ 52.434.000
2002	$ 42.500.000	$ 61.154.000
2003	$ 40.271.000	$ 57.082.000
2004	$ 43.840.000	$ 60.732.000
2005	$ 43.870.000	$ 59.269.000
2006	$ 49.500.000	$ 63.881.000
2007	$ 53.136.000	$ 67.188.000
2008	$ 55.630.000	$ 68.456.000
2009	$ 58.680.000	$ 68.812.000
2010	$ 57.700.000	$ 68.544.000
2011	$ 58.044.000	$ 68.173.000
2012	$ 58.044.000	$ 65.634.000
2013	$ 58.044.000	$ 64.353.000
2014	$ 58.679.000	$ 64.295.000
2015	$ 63.065.000	$ 67.974.000
2016	$ 70.000.000	$ 75.475.000
2017	$ 94.143.000	$ 100.042.000
2018	$ 99.093.000	$ 103.003.000
2019	$ 101.869.000	$ 101.869.000

Table 4

[112] https://www.bls.gov/data/

From Table 3, first of all, we can see that the three noticeable points evidenced earlier (the 2004 drop in salaries due to the introduction of a new franchise, the lackluster period of growth ranging from 2008 to 2016, and the 2017 explosion – these two also apparent in Table 4) are still valid. Furthermore, it is interesting to notice that between 2004 and 2005, both in Salary Cap and average salaries, a very small increase was recorded, but, once we adjust for inflation, considering these data in 2019 US dollars, this increase actually appears to us as a small decrease in values.
This contrasting pattern is also present in the Salary Cap variation from the last two seasons considered: the adjusted values show us a "small" drop in the cap dimension from 2018 to 2019. However, this pattern is not replicated by the average salaries, which maintained their growth process, started out in 2015.
Looking back at the first years reported, lastly, a feature common to average salaries and Salary Cap is the following: the adjusted value is nearly doubled in each of the first 6 season from its corresponding "old" value. This, however, only makes the numbers look more consistent, in that the growth process, if looked at through the lenses of inflation, looks slower but steady.
In fact, the increase from 1991 to 2019 is almost eightfold in the case of salaries, and even tenfold in the Salary Cap case, if we don't consider inflation.
Once we do so, however, we notice that *both* these datasets improved "only" by five times their original value, making them effectively more consistent with one another, thus reinstating their correlation.

The main takeaway from this procedure, therefore, is the following: even if the process of inflation adjustment gives us some more reliable data to work with, it is still evident that both the Salary Cap and the average salaries had steady growth processes, which in some years might have slowed down, but nonetheless brought the league to a one-of-a-kind economic situation, a unicorn even among the US professional sports leagues.

For the sake of completeness, inflation adjusted datasets concerning the sponsorship values and TV deals considered in the preceding chapter will be reported in the appendix, and an analysis of these will be carried out throughout the next paragraph.

4.3: Statistical Research

It is now time to get down to business. From the first paragraph of this chapter, recall that the three questions that are going to be taken into account here are the following:

1) Is there a correlation between the ever growing CCI analyzed and the players' salaries?
2) If there's any correlation, how strong is this?
3) How will – and should – the league's BM evolve on the basis of this?

The first two questions will be the first considered, and the answer to those will be provided by calculating the correlation coefficients **and** linear regression equations between the CCIs and players' salaries from a few NBA seasons: in fact, some "time limits" will be defined here.
First of all, the time period 2003-04 to 2010-11 will be considered, after which the next 8 seasons leading up to the last one played will be analyzed (2011-12 to 2018-19).
The rationale for these periods' choice is the following: the 2011-12 season is the turning point in the league's recent economy, due to the lockout that happened in that year and brought the league to some changes in its BM, and we want to see what the relationship between salaries and the CCI analyzed was back then, as opposed to what it looks like from 2011 onwards.
The analysis will be carried out both using non-inflation-adjusted data and inflation-adjusted data, in order to give a more comprehensive understanding of the league's economy evolution.
As for question 3, instead, we will mostly face it in the next, final chapter, in order to tie it together with some suggestions and considerations about the evolution of the league's BM.

4.4: Is There a Correlation Between the CCI Considered and Players' Salaries? & How Strong is This?

Before starting by considering the time periods selected, let's just briefly define what correlation and linear regression stand for:

- Correlation is defined as the interdependence between pairs of variable data[113]: it informs us about the association between two variables, therefore indicating the extent to which these move together. However, just because two variables are related, it does not mean that one causes the other. That's why we are going to consider linear regression as well.

- Linear regression is a statistical analysis technique useful to discover the relationship between different economic variables[114]: it describes how an independent variable is numerically related to the dependent variable, indicating the impact of a unit change in the known variable (x) on the estimated variable (y)[115]. Once we have a formula for understating these changes, it will be much clearer how one variable affects the other, thus providing us a more complete understanding about the relationship between salaries and CCIs.

Now, before starting with the 2003-2010 period analysis, which will come before that of the 2011-2018 sample set, let's consider briefly the methodology employed to reach the desired results.

[113] Bloomsbury Business Library – Business & Management Dictionary, (2007), p. 1969
[114] Essential Economics, (2004), pp.221-222
[115] Jana A., (2018), "Difference Between Correlation and Regression in Statistics", retrieved from https://www.datasciencecentral.com/

4.4.1: Correlation & Regression Calculation – Methodology[116]

In order to get to the correlation coefficient, *r*, the following, quite common, formula has been employed:

$$r = \frac{1}{n-1} * \left(\frac{\sum x * \sum y * (x_i - \overline{x}) * (y_i - \overline{y})}{s_x * s_y}\right)$$

[Formula 1]

Where:

- r = the correlation coefficient on the linear relationship between the variables x and y;
- n = the number of years considered (in our case, 8);
- x_i = the value of the x-variable in a sample;
- $\overline{x}$ = the mean (average) of the values of the x-variable;
- y_i = the value of the y-variable in a sample;
- $\overline{y}$ = the mean (average) of the values of the y-variable;
- s_x = the standard deviation of the x-variables;
- s_y = the standard deviation of the y-variables.

This formula has been applied, in both the 2003-2010 and 2011-2018 time periods, a grand total of 6 times for each group of seasons, maintaining players' salaries as the y-variable in all the cases.
It has been applied 6 times because the target was that of getting the correlation coefficient between average salaries and **(1)** sponsorship values, **(2)** TV deals, **(3)** NBA's total revenues, **(4)** sponsorship values – adjusted for inflation, **(5)** TV deals – adjusted for inflation, and **(6)** NBA's total revenues – adjusted for inflation.
For the latter 3 datasets, notably, the same formula has been applied, but with the use of players' average salaries adjusted for inflation as the y-variable, in order to make the results more consistent.

[116] The complete dataset used in these calculation processes can be found in the Appendix.

The linear regression equation, instead, is generally presented as:

$$y = a + bx$$

[Formula 2]

Where:

- y = the dependent variable (the variable plotted on the y-axis);
- x = the independent variable (the variable plotted on the x-axis);
- b = the slope of the regression line;
- a = the y-intercept.

Thus, in order to obtain the linear regression equation *for the same 6 datasets* mentioned above, these steps have been followed:

1. b, i.e. the slope, has been computed, using the coefficients obtained in the quest for the correlation function:

$$b = r * (\frac{s_y}{s_x})$$

[Formula 3]

2. After this, a can now be found:

$$a = \bar{y} - b\bar{x}$$

[Formula 4]

3. Putting everything together, we get:

$$y = \left(\bar{y} - (r\left(\frac{s_y}{s_x}\right))\bar{x}\right) + \left(r\left(\frac{s_y}{s_x}\right)\right)x$$

[Formula 5]

4.4.2: Results from the 2003-to-2010 Seasons

(1). The r between Sponsorship values and Average Salaries turned out to be 0,9125. This tells us that the two samples tend to move in the same direction, in that they have a strong positive linear relationship, as shown in the scatterplot below (Table 5).

The linear correlation formula is also plotted on the graph, with its equation defined on the bottom right corner of the graph, and it was useful to better

understand what a 100% r would lead to, as if this was the case, all the plotted points would lie on the regression line.

As such, we can now say, with a reasonable degree of certainty, that average salaries are to some, not-negligible, extent affected by the sponsorship's money. Of course, the correlation is not 100%, so we cannot conclude that salaries depend completely on the value of sponsorship, but that was not the expected result, either.

It would be foolish, actually, to think about a 100% correlation, for two main reasons: first of all, we are not talking about securities, which can be easily compared considering their r. Here, there are many factors which concur to the definition of the money dedicated to players' salaries, not just sponsorship. Secondly, these data we are comparing are *real* data, and real data are not always perfect.

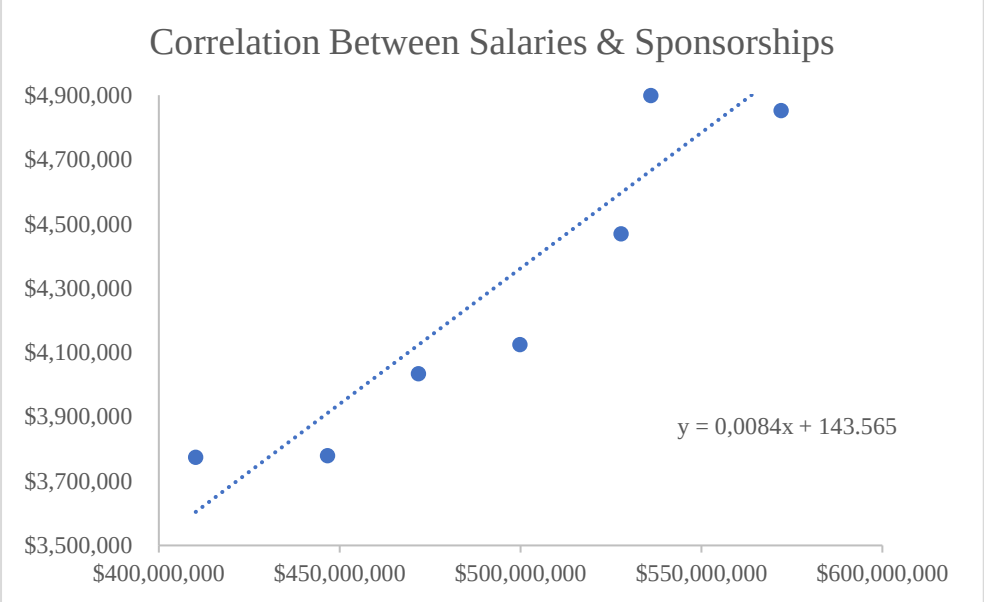

Table 5

(2). The r between TV deals and average salaries is 0,8971, hence pretty strong here as well.

The linear regression equation is plotted on the graph (Table 6), with its formula on the bottom right corner, alongside the values (blue dots) whose correlation we are studying.

The graph here, however, is not of much help, and the r, if considered carelessly, might be misleading.

In fact, one thing to note is that TV deals' value do not change over time constantly, as their amount is mostly given for defined periods of time, unlike average salaries, which change year-by-year.

Therefore, it's better not to look at the graph as a whole. It is more interesting, instead, to focus on two points in particular: A and B (the red-glowing dots on the scatterplot).

Now, these two points simply represent the last year of the deal worth $766 million (point A), and the first year of the deal worth $930 million (point B), and have been chosen because they better show how the average salaries increased following the implementation of the new TV deal. It is, in fact, interesting to note how the average salaries improved by 10% from the 2007-08 season to the 2008-09 (i.e. the seasons corresponding to the data highlighted), which is the highest growth rate ever recorded in the period considered (from 2003-04 to 2010-11). If we try to compute then the correlation between these two subsequent years, what we get is simply a value of 1, which would normally mean that the values considered move together. Nonetheless, relying on such an inconsistent correlation, based on only two years, is pointless, therefore we will have to take as good the r originally computed (0,8971), which still shows a strong positive linear relationship.

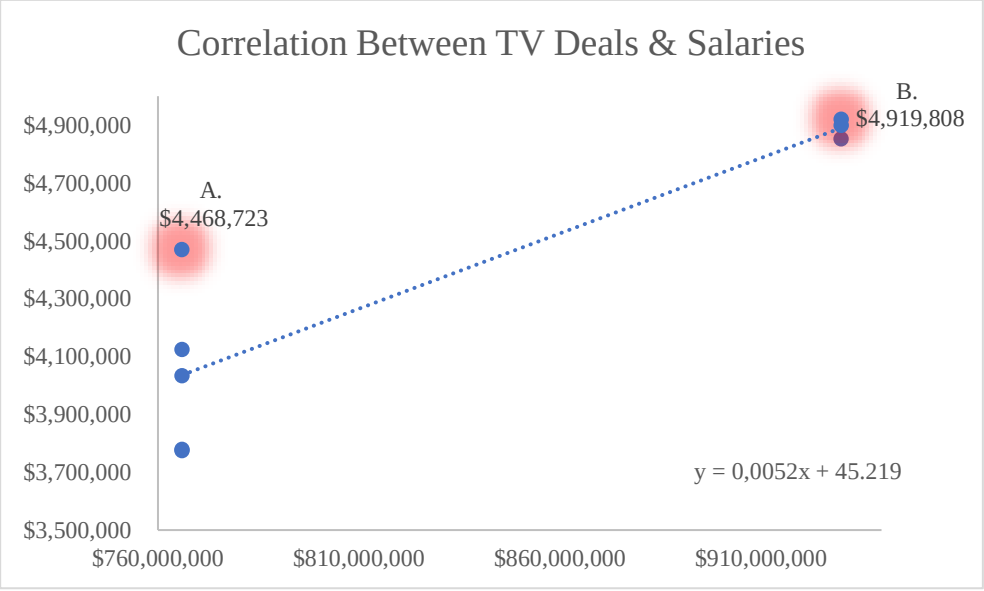

Table 6

(3). The r between the NBA's yearly total revenues and players' salaries is equal to 0,9164, interestingly stronger than the previous r (see point (2)), even if the

values considered in this coefficient computation are much higher than the TV deals numbers (see Appendix for the complete dataset). The reason for this is fairly intuitive, as the values of the TV deals are fixed, while total revenues change year-by-year, so it is easier to find a pattern, if any.

As the r is quite high here, we can safely assume that there is indeed a correlation between revenues and salaries, but the most interesting feature of the calculations computed here is the linear regression function (displayed on Table 7), which shows for the first time (and only time in any of the linear regression functions calculated for both the 2003-10 period and 2011-18 period) a negative y-intercept.

Thus, if we were to set the independent variable, x, equal to 0, we would get negative salaries.

Of course, this does not make much sense, and not just because it is insane to think that x, which here represents total revenues of the NBA, could be 0.

In fact, given the risible value of the y-intercept compared to all the data that make up this dataset, the effects of the y-intercept on x are completely negligible.

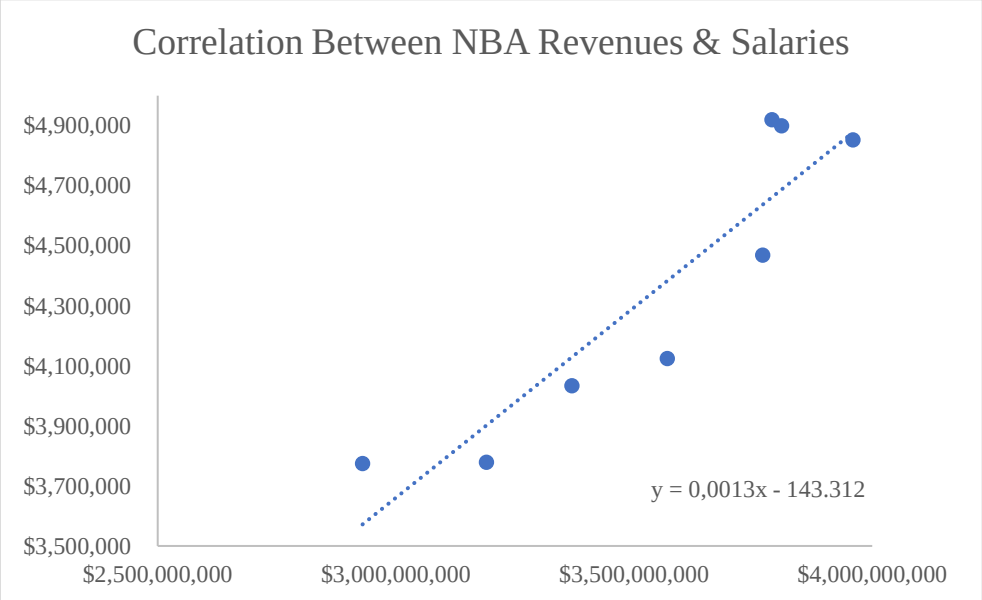

Table 7

(4), (5) & (6). As these three points all concern inflation-adjusted data, they will be now considered together. Before describing all the results, however, it is

better to point out two factors that will stand out in every case: first of all, all the r found are equal or lower than 0,61, thus they are much weaker than their respective r from non-inflation adjusted samples, where the lower r was 0,8971 (see point (2), describing the correlation between TV deals and salaries). Secondly, the values of the y-intercept all go well beyond the $1 million threshold, thus resulting in a much more consistent influence over the dependent variable, y.

Starting with the relationship between Inflation Adjusted (IA) sponsorships and IA salaries, the r that has been found is 0,606, which is commonly seen as a moderately strong positive linear relationship. Now, this value, even if it's not as

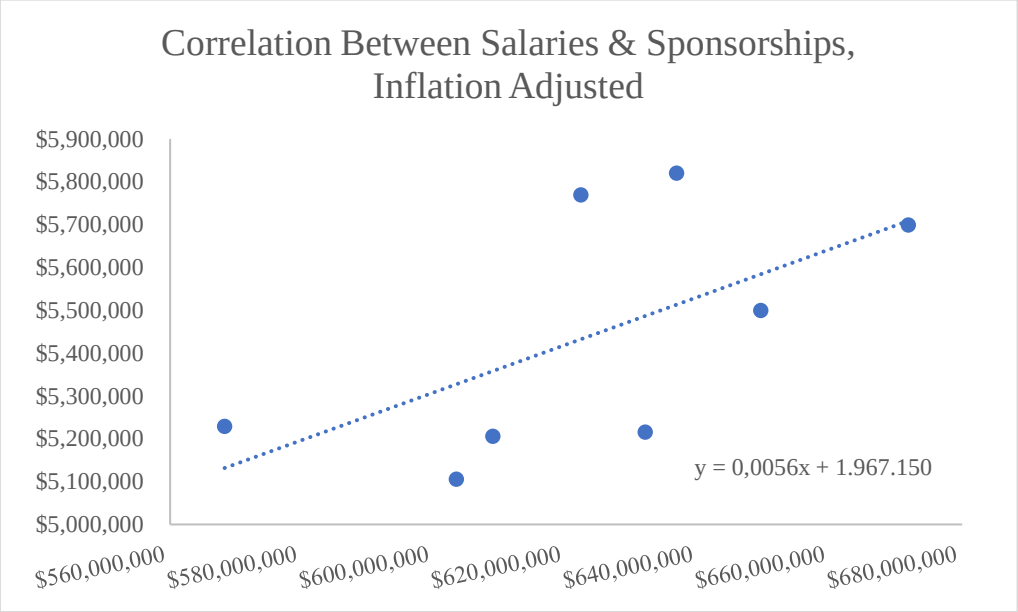

Table 8

strong, and hence not as reliable, as expected, it still communicates us that there is some sort of relationship between the two sets of data.

However, much of this difference in correlation can be explained by the change the data underwent when they have been adjusted for inflation: while non-adjusted sponsorships' value increased by an average of nearly 5% from 2003 to 2010, the IA sponsorships, instead, only recorded an average increase of nearly 2,5%. Similarly, salaries improved by 3,74%, while IA salaries improved by only 1,27%, on average.

These differences in growth rate, overall, do a decent job in explaining why the IA correlation coefficient resulted much weaker than its non-adjusted corresponding r.

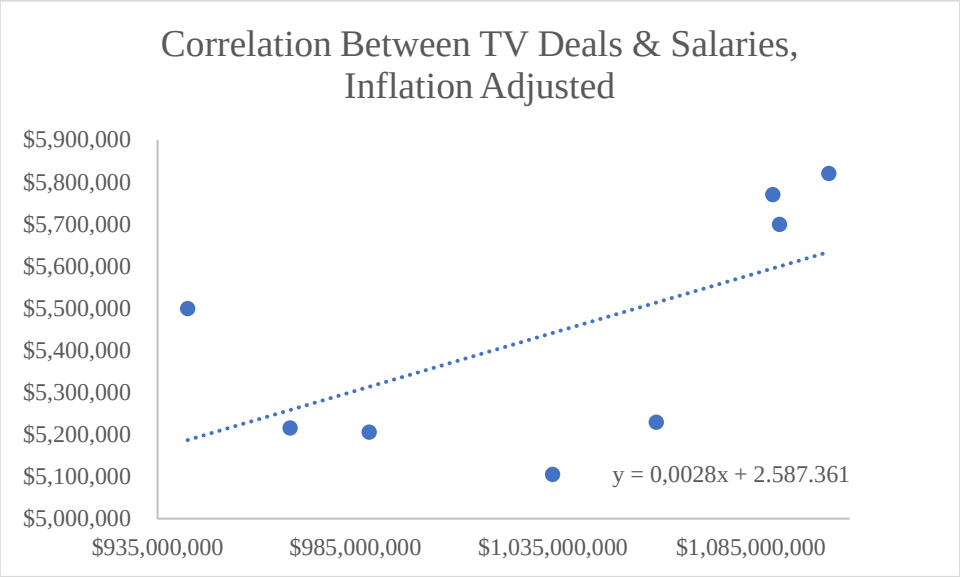

Table 9

On to the next one, TV deals and salaries now show a correlation coefficient of "only" 0,5925. Earlier we had that the TV deals' value, in the original, non-adjusted for inflation calculations, were constant for the first five years considered, only to abruptly increase from 2008 (due to the introduction of the new deal), but now everything changes: the values now are more regularly shaped, being constant for the whole 8-year period considered, always ranging between the $940 million and $1.1 billion range (see Table 9 above), with an average growth rate of 0,6% only (for the sake of completeness, with the non-adjusted dataset, the average growth rate was 3%, hence five times bigger than the IA dataset's growth rate).

Since salaries, on the other hand, recorded a small, but still present and relevant, growth, it is easy to understand why the correlation here is weaker than before. Nonetheless, a value close to 0,60 is still of some significance: it does not, in fact, tell us that no correlation stands between the two samples.

Lastly, the r between NBA total revenues and salaries, adjusted for inflation, is 0,5796, the lower of the three (see Table 10). The rationale for this is the same underlying points (4) and (5), as uneven revenues' growth rates, with no direct effect on the average salaries for the corresponding year (it would be more

correct to consider that non-adjusted revenues had an effect on salaries, both adjusted and non, as the IA process is only a successive step), show non conclusive results, even if there's a proof that some kind of relationship still exists between these two datasets.

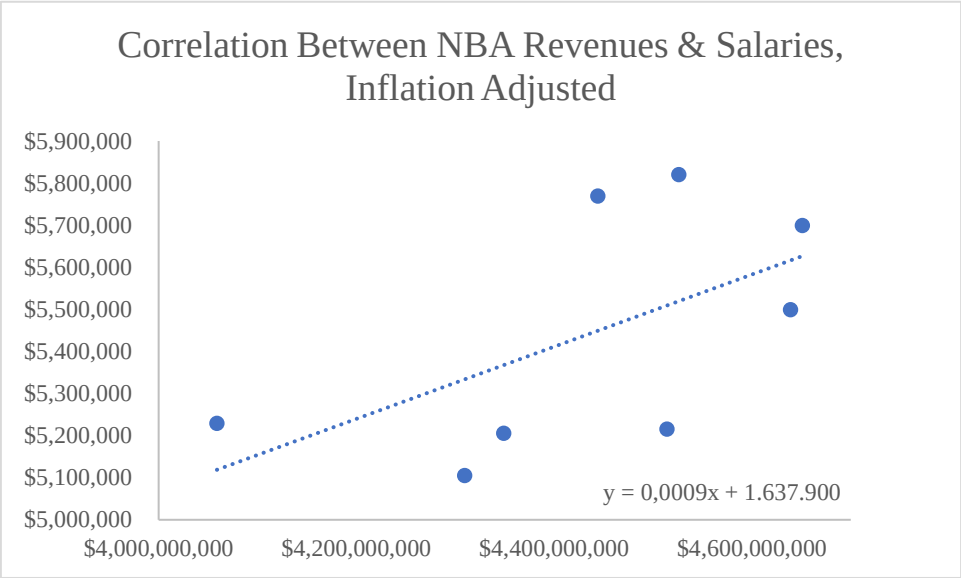

Table 10

4.4.3: Results from the 2011-to-2018 Seasons

The results from the after-lockout period are extremely interesting, in that the correlation, for one, improves significantly here, which most likely depends on the redistribution of profits, happened following the introduction of a new Collective Bargaining Agreement in 2011 (which changed the distribution of BRI, recall from chapter 2, par. 2.2). Let's see all the samples in detail.

(1) The correlation coefficient between salaries and sponsorships, in the 2011-18 period is extremely high: 0,9653. As such, it seems that there is a stronger relationship in these years compared to the previous period analyzed, and from the scatterplot below (Table 11), this is also highlighted by the closeness of the plots to the regression line.

Even if we know and have seen that correlation does not mean causality, it would be shallow not noticing that these two samples are inevitably related, to

the extent that sponsorships, from what it appears here, might actually be considered responsible to some extent for the high average salaries NBA players enjoy.

The consistency through which the data align nearly perfectly with the regression line, with the only outlier being the point representing the 2016-17 season (which recorded an unusual increase in sponsorships value from the

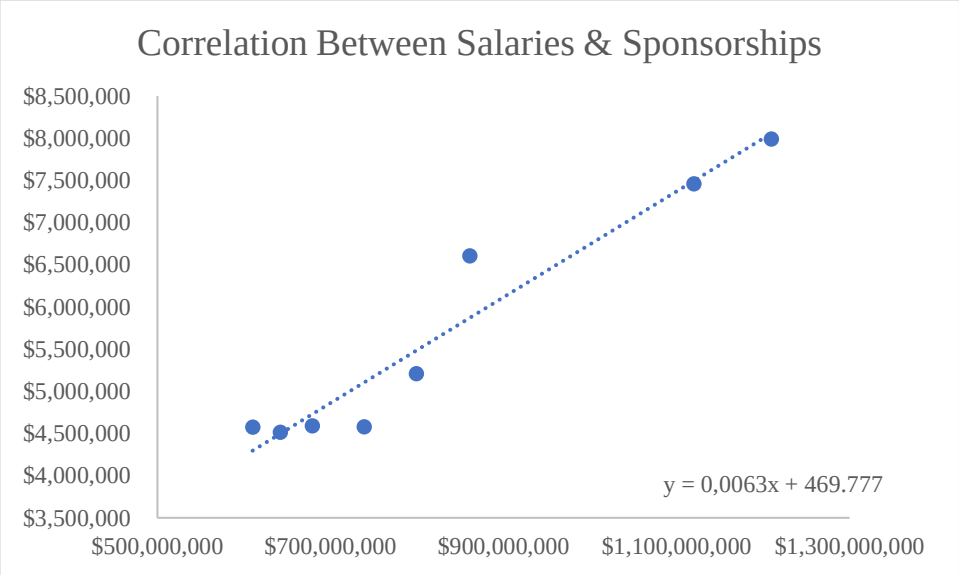

Table 11

preceding season and was matched by an unexpected growth in salaries as well), is striking, and so far this is unsurprisingly the best example of relationship between a CCI and salaries.

(2) The r between TV deals and salaries is equal to 0,9538, another very high positive correlation coefficient. Also, here, we face the same issue as point (2) of the 2003-10 period: the graph has oddly placed plots (see Table 12), following the uneven distribution of the x values, which suddenly move from $930 million to $2.6 billion.

As such, if we try to compute the correlation coefficient between the two red glowing points, representing the last year of the $930 million deal (A) and the first year of the $2.6 billion deal (B), similarly to what has been done earlier in point (2) in par. 4.4.2, we obtain an r of exactly 1, which would mean that the two perfectly move together, but it is once again pointless to rely on such a result, based on the correlation between only two value couples.

Therefore, it is better to look elsewhere if we want to find a better explanation for this scatterplot.

Consider, for instance, the increase of the salaries' value from point A to point B: a growth rate of nearly 27% brought the salaries to $6.6 million, and this tells us that such an improvement has to be related to the new TV deal that entered the scene in 2016. If we look at things under this new lens, we have a much sounder understanding of the high r value, which communicates that a relationship between TV deals and salaries does exist, and we can therefore assume, with a certain degree of certainty, that the positive change in TV deals' value is actually one of the main causes of the increase in average salaries.

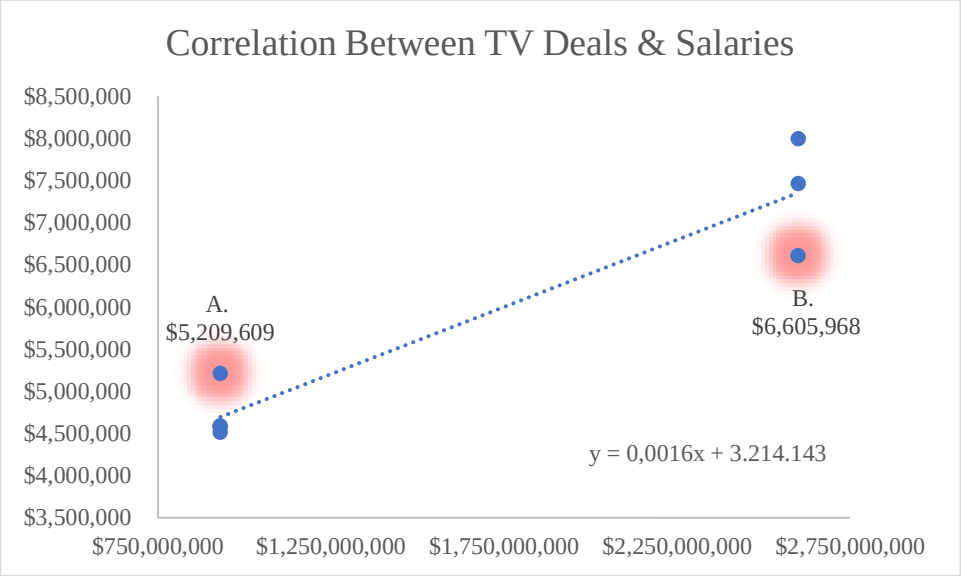

Table 12

(3) The correlation coefficient between total NBA revenues and average salaries is incidentally quite close to the r between salaries and sponsorship (which is equal to 0,9653), in that it equals 0,9651, again extremely high and positive.

As such, it is safe to assume, much like what happened with the other samples analyzed in this paragraph, that the probability that the relationship between the two sample variables occurred by chance is almost null.

This means, once again, that the two have a non-negligible level of relationship, factor which is also highlighted by the scatterplot (see Table 13), where the linear regression line follows a strongly uphill pattern, with the points extremely close to it.

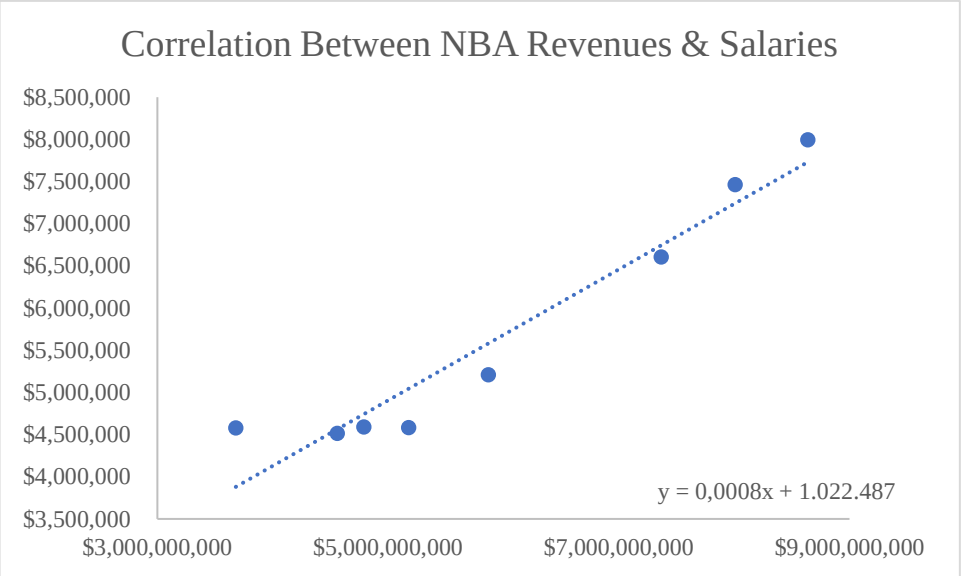

Table 13

(4), (5) & (6). The inflation-adjusted results from the 2011-2018 time period are much different from those of the previous timespan analyzed, mostly because the correlation coefficient for all 3 of the samples here considered is always higher than 90%.

Take, for instance, Table 14, showcasing the relationship between salaries and sponsorships: here the r found is 0,9504, which tells us, once again, that the two variables are strongly related.

One thing to note here, however, is the similarity between the adjusted values to the non-adjusted ones: this means that, unlike what happened with the values from the 2003-11 sample, the IA sponsorship values are much closer to their corresponding non-adjusted values. This might depend simply on the difference in the inflation rate between the early 2000s and the 2010s: it seems that in that first period, dollars where worth actually more. This pattern, furthermore, is replicated in the other two IA samples (TV deals and league's total revenues).

The most important thing that the 0,9504 r does is to confirm the findings of point (1). Since both correlation coefficients are high enough, we've finally reached the desired goal, as the IA findings now match the non-adjusted findings, factor which definitively proves the relationship between the two samples.

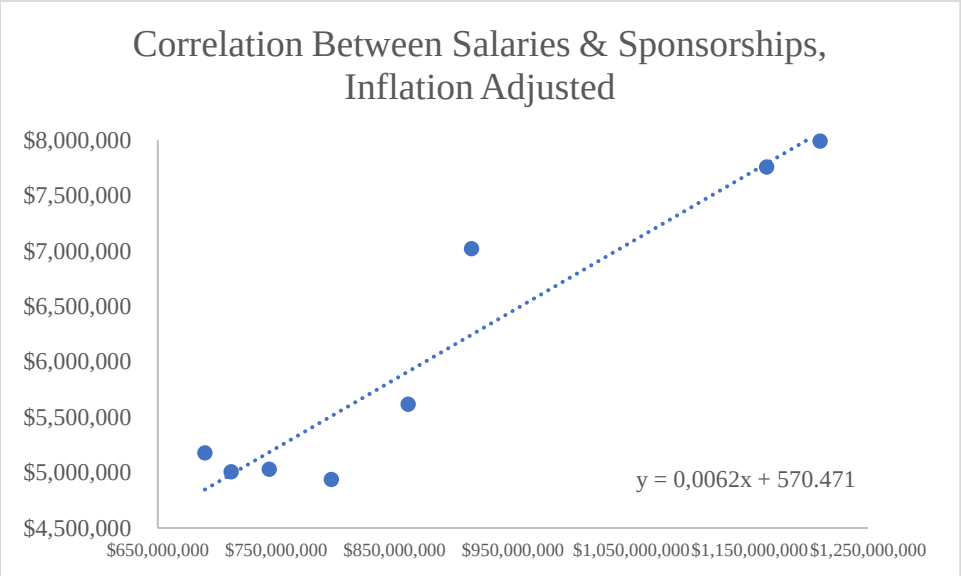

Table 14

Also, in the TV deals-salaries analysis, it has been found that the correlation coefficient is nearly identical to its non-adjusted value, as it is 0,9537, against the value of 0,9538 found in point (2).

If we keep point (2) in consideration, we also notice that the scatterplot (Table 15) is quite similar to Table 12, mirroring its results, while, if we look at Table 9, it is evident that the points there are much more scattered. In fact, this is another consequence of the closeness of the adjusted data to the original ones.

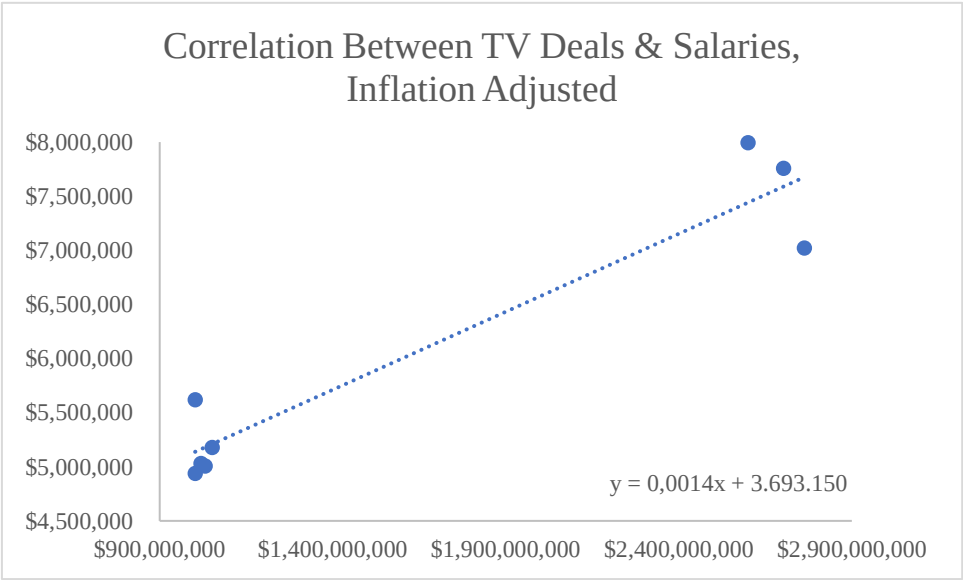

Table 15

Therefore, we have another evidence here supporting the intuitive statement that the closer the inflation-adjusted data are to their originals, the closer the adjusted correlation coefficient is to its non-adjusted counterpart, as well.

Lastly, the correlation coefficient found between NBA revenues and salaries, adjusted for inflation, turned out to be 0,948, the one among the three r computed in this paragraph that differs the most from its original one (0,9651). Nonetheless, it remains an impressive result, once more showing a strong relationship between the two samples.

Furthermore, the scatterplot here (see Table 16) is very similar to its non-adjusted one, with the linear regression equation also remaining quite constant (it differs by approximatively 290.000, value which, when considering numbers well above the million, is not of a worrying magnitude).

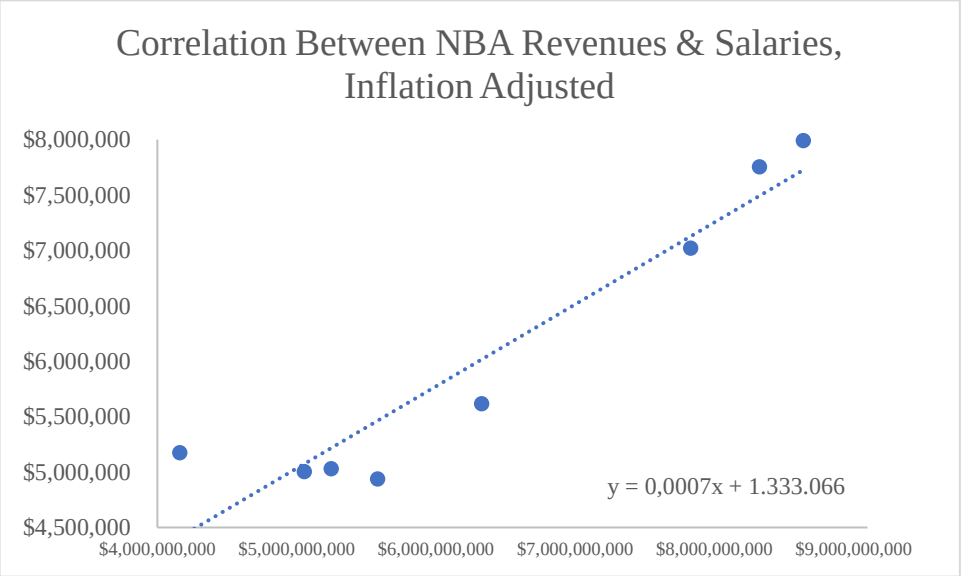

Table 16

4.4.4: Conclusions to Question 1 & 2

Recall that the questions we wanted to answer along this paragraph were the following:

1) Is there a correlation between the ever growing CCI analyzed and the players' salaries?
2) If there's any correlation, how strong is this?

Now, with the knowledge obtained following the correlation coefficients analysis, with the help of useful scatterplots and linear regression equations, we can give an overall answer to these questions.

First of all, we now know that a correlation between CCI and NBA players' salaries *is present*. Moreover, the correlation found never fell into the "weak correlation" band, as all the coefficients found did not go below 50%, thus showing that, at worst, a "moderate correlation" exists.
All in all, this also answers the second question, in that we managed to understand clearly that the more relevant correlations (the ones between the non-inflation adjusted values) are extremely strong, to the extent that they are never too far from the 90% threshold, which is one of the best results one can hope for when searching for a connection between two samples.
This, in much simpler words, tells us that the average NBA player salary moves together with the league's revenues.

It is also worth noting that we've broken down the correlation analysis in two time periods, in order to find any difference between the NBA seasons before and after the 2011 lockout.
As such, we can now draw some preliminary conclusions, which will be then continued in the next chapter.

Notably, the post-lockout period (from 2011 onwards) has the strongest correlation coefficients. This signifies that revenues coming from CCI were more evenly

distributed in the 2011-2018 timespan, thus affecting players' salaries to a more significant extent compared to the previous time period, which preceded the Collective Bargaining Agreement negotiation.

As such, it is undeniable that the lockout benefited players considerably, but, since the whole NBA's CCI environment has been pushed up following this singularity, the main takeaway here lays in the fact that a massive improvement was made possible by the 2011 lockout, which pushed both league's revenues and players' salaries to new heights.

Clearly this does not mean that the pre-lockout period was an arid scrubland of lackluster deals: on the contrary, revenues and salaries were on the rise and, not considering the crisis-struck period, as profitable as ever.

Therefore, a furthermore improvement on the whole league's economy was just behind the corner, in that the NBA only had to overcome the flat period it was living, and it did just so, as the data gathered show, with larger-than-life deals and new opportunities exploited to their full potential.

CHAPTER 5.
CONCLUSIONS & EXPECTATIONS ABOUT THE NBA'S FUTURE

With all that has been learned up to this point, we can now draw some conclusions and expectations about the future of the league's economy.
First of all, an estimate about how the economy of the NBA might change in the next 8 years – for consistency with the analyzed datasets in the preceding chapter – is due.
Afterwards, we will move onto the conclusive paragraphs of this paper, hence providing insights about this research limitations as well as future research suggestions.
Then, the main implications of this study will be briefly discussed, before defining the conclusions reached after this journey into the NBA universe.

5.1: Forecasts about the NBA's Next Future – 2019 to 2026

Giving a numerical estimate regarding the NBA's future is a deeply challenging task, as we've seen up to now that the league's economy relies on some CCI whose value is highly volatile. Nonetheless, the trend that imbued the league in the last few years can be synthetized with two words: unstoppable growth.
This simply means that the NBA is living a golden age for its economy, with its fanbase rising steadily, which in turn makes the league more appealing to companies willing to associate their names to that of the world's biggest professional basketball league.
Therefore, if we keep this in mind when trying to forecast the economic future of the NBA, there's no reason to think that this growth period will stop.

The highly probable renovation of the deals for the jersey patches' trial period (ending in the 2019-20 season), which will consequently increase the value of sponsorships, and the huge TV deal signed in 2016, designed to last until the 2025-26 season, are only two of the drivers of the growth process that is expected to keep benefiting the league in the next few years.
As such, even if trying to estimate the NBA's future revenue stream is close to impossible, as this involves many sources other than the CCI herein analyzed, we can still try to evaluate how the league's CCI will look like from here to 8 years, by simply

stating some key assumptions that will represent the NBA's trademarks in its immediate future.

5.1.1: NBA's CCI's Future Forecasts

We've used linear regression to better understand the relationship between the variables under scrutiny, but what we're going to perform now is a much more intuitive evaluation process.
Keep in mind that what will be estimated now is the impact that the two main CCI that have been analyzed in the previous chapter (TV deals and sponsorships) will benefit the league with in the next 8 years, for consistency with the time periods studied up to now.

Now, we can base our estimate on the basis of two key assumptions:

1. The value of TV deals for the next 7 seasons has already been disclosed, but we don't know anything about the future of this industry and of its relationship with the NBA after the 2016 deal's end;
2. The value of only some relevant sponsorships is known, and, on average, these have accounted in the last 8 years for 22% of the overall sponsorship value (in the last two seasons, 2017-18 and 2018-19, this value peaked to 31%).

Let's consider these assumptions more in depth:

1. We've seen that the TV deals signed by the NBA in 2016 with ESPN and TNT was worth a grand total of $23.4 billion for 9 years, which on average grants the league $2.6 billion every year up until the 2025-26 season (7 years from now). As for the successive season, the 2026-27 one, we do not have any hints about how the deal will look like, nor if any deal will take place. Overall, two roads look available for the league, starting from the 2026-27 season, concerning the relationship of the NBA with TV networks: first, a new deal worth even more will be negotiated, following the likely success that the league will enjoy in the next future, following the trend that characterized this last decade; second, the

NBA will be able to exploit new platforms, such as online streaming platforms, and these will become so much more popular than regular television services, that the need to sign for high contracts will be much less urgent than it has been up to now, thus leading to lower contracts. Keep in mind that this second, drastic, change is actually only possible in the eventuality that online streaming services will overcome TVs as principal mean of broadcasting, circumstance which, on its own, will surely be the subject of many papers in the next future.

2. The value of the Nike sponsorship is well known ($125 million/year until 2024-25), just like the value of the Pepsi deal ($100 million/year, expected to end beyond the 2026-27 season). Furthermore, we are well aware of the value that jersey patches deals provided to the teams, and, even though these are set to end with the 2019-20 season, the last year of their trial period, there is no way one could estimate the value of the next stint of this project, which nonetheless is strongly believed it will be reconfirmed.

   Moreover, the values of all these relevant sponsorships deals only account for a quarter, at best, of the overall NBA's sponsorships value, and this makes it hard to estimate how the future will look like, in that we do not have a clear and exact understanding on how the NBA managed to earn the remaining 80% of sponsors' money.

Now, following these assumptions, we can say this: it would be optimistic at best trying to estimate numerically the future of the league.
However, some conclusions can be drawn on the basis of the assumptions just made and on the experience obtained from the analysis of the league's economic history.

First and foremost, nothing suggests that the growth process which is still going on will stop anytime soon. From the likely renovations of jersey patches deals, to the deal with Nike looking more profitable than it was expected to be and the fanbases continuously enlarging, we expect the NBA to close out the next seasons with a more than positive cash flow.

What's worth noting is that the league was not unaffected by the 2008-09 global economic crisis, but in these last few years it managed to fight back, recouping all the money that it left on the street.
As such, even if these last few years have been rather unexciting for some European economies, the US is still staying one of the top economies in the world, and the NBA is mirroring this trend by improving its economy year by year, thus suggesting that, unless another major crisis period will break out, the league has no excuses for not keep growing. This belief is made even more solid by the trend experienced by the league. In fact, the only years in which the NBA slowed down in growth (considering as metrics for this average salaries, salary cap dimension and overall sponsorship value, as these are the only values that are not predetermined and thus we are sure will change every year) are the years following the world crisis. Everything was all set to keep improving, and yet the NBA was hampered by a dramatic situation that affected its partner companies, and, in turn, the league itself.

As such, while the value of TV deals in the years successive to the end of the present deal is uncertain, sponsorships are still expected to improve: from all the experience we've gained in the analysis of the main sponsorship forms, we can safely assume that, even if most sponsorships benefit to a significant extent from the exposure to medias, the future of this industry is not completely tied to the future of the TV industry, as the league's games will still need to be broadcast somehow.
May it be TV or some innovative streaming platform, live NBA games will be definitively provided to the public, thus not hampering the media value that sponsors hope to obtain when they sign for deals with major sports leagues.

Let alone this, sponsorship value has grown, over the course of the last 8 seasons, by an average of 10%/year, with no year going below the 5% yearly growth threshold. Therefore, even in years of lackluster growth for salaries and salary cap dimension (which, as we've seen in the previous chapter, reflects the growth of the NBA's economy), sponsorships still kept a growing trend, and we cannot stress enough how much this tells us about the immediate future of the league, leading to one more, maybe

repetitive, assumption: sponsorship cannot and will not stop flourishing in the years to come.

5.2: How Will – and should – the League's BM Evolve?

We've seen that the NBA's BM relies mostly on a few CCI and some regular income sources (such as gate receipts, concessions…) to stay profitable, and the Franchise BM employed actually ensures the competitiveness of the league, which, in turns, makes the whole environment more appealing to sponsors and potential partners.
As such, I would hardly suggest the league to make any changes in its actual BM: dramatically changing the features that have become common to the league, which grant players and teams alike insane amounts of money, will not result in anything good, as there doesn't seem to be a BM better suited for the NBA than the one it is actually employing.
Therefore, the only changes which the league can afford to undergo are changes based on revenues from CCI. This means, continuously innovating the techniques it employs to gather revenues from TV, radio, sponsors…
The main suggestions that I feel like giving here have already been mentioned along this paper, and in fact they are the sum of all the things that have been learned during this study: first of all, anticipate trends by investing fearlessly in new broadcasting technology. The first thing that comes to mind is actually the above-mentioned online streaming environment, which is showing strong hints that make me think it might surpass the TV as main entertainment medium. Therefore, this opportunity is one that needs to be seized rapidly. Secondly, we've seen that opening up to jersey sponsorships turned out to be an extremely profitable project, which has been avoided for a long time for a fear of image alteration, as the jerseys tend to represent the identity of the cities that host the teams. This fear was proven to be ungrounded, as it was mostly just a matter of time for fans to get used to jersey patches, and this makes me assume the following: teams and the NBA itself should not be worried to experiment with new forms of sponsorships or to push the boundaries for their advertising techniques.
The teams' arenas are the best spots to experiment new techniques, for instance, and we've already seen brave companies exploiting their features in insanely efficient ways:

take, for instance the Golden State Warriors' basketball court on February 10th, 2018, when the whole arena became a 3D screen, showcasing a trailer for a videogame planned to be launched on PlayStation 4 on April 20th[117]. It was just a trailer for a videogame, but you know what happened when it ended? The crowd cheered and clapped. For a videogame trailer.

This clearly shows us that there are so many untapped opportunities still, and fans are open-minded to such an extent that the NBA needs not to be shy, but on the other hand, it should try to involve and experiment with high-risk-high-reward techniques.

5.3: Research Limitations & Future Research

Even though, throughout the course of this study, I've managed to collect reliable datasets and samples, there are still some limitations to this elaborate.
In fact, I did not manage to provide actual numerical estimates for the NBA future, which I consider being a close-to-impossible task, for one simple reason: the NBA is not a publicly traded company, and as such, it does not disclose its financial statements, hence not allowing for 100% reliable estimates to be computed.
This limitation applies to both future forecasts, and, to a lower extent, to past data analysis, which are still provided by many private sources – outside the league – which have been duly cited in this paper.
The impossibility to retrieve many data for the computation of future trends is also the reason why par. 5.1 has been made more descriptive with respect to the previous chapter's analyses, which relied heavily on a high quantity of data gathered from various sources.

Furthermore, the 8-year time limit applied to study the changes in the league's economy has been chosen in order to create a pattern, placing as main "turning point" the 2011-12 season – i.e. the lockout season. While the time periods considered actually proved to be different in many aspects, and the NBA's economy did actually change following the

[117] Makuch E., (2018), "They Projected God of War PS4 Footage On An NBA Court", retrieved from https://www.gamespot.com/

lockout, one limitations still infested this analysis: TV deals' and sponsorship agreements' re-negotiations do not match exactly the years sets considered, thus making the study a bit more convoluted than how it was meant to be (for instance, consider par. 4.4.2, point (2)).

Now, the most relevant limitation of this study, to use a perfectly fitting metaphor, is what in basketball is generally called the "hot hand fallacy": when a player starts hitting many baskets in a row, fans and teammates are sure he will convert the next one as well, thus implying that the situation that is happening now is going to continue happening in the future. Of course, this is impossible, as the player will sooner or later miss a shot. What this means is the following: in trying to estimate the future of the NBA I've employed an optimistic mindset, firmly believing in the growth process of the league and the safety of this sector as an investment possibility for sponsors and other CCI, but once again, given the lack of concrete data to compute perfect estimates, nothing assures us that this growth process won't suddenly stop and turn into a recession.
I would consider it much more likely to see a repetition of the stand-by period that verified between 2008 and 2014, when average salaries, for one, hovered within the $5 million.
As such, for future research purposes, my suggestion would be that of trying to gather as many data as possible from reliable sources, concerning those CCI whose value is still obscure, and which were not mentioned in this paper.

Furthermore, since the NBA economy is fast paced just like basketball is, an analysis similar to the one that has been carried out here could be potentially repeated every year, obtaining different results on the basis of new disclosed data or new sponsorships deals.

5.4: Implications of This Study

The main aim of this study was that of providing an in-depth knowledge about the NBA environment, which might at first be considered of secondary importance, in that it is a sport league, and these are generally considered simply distractions for the big public.

Therefore, writing an appropriate guide about the economy of this money-making machine will hopefully make people re-evaluate this conception, and also help potential sponsors, marketers or even students soon to enter similar environments, to understand that investing in the NBA (but also in other US – and non – pro leagues) is an extremely profitable opportunity, overall.

Furthermore, the analysis of the correlation between the players' salaries and the CCI considered has been carried out mostly to show that these sectors are actually related, hence reinstating the growth pattern that starts from the CCI and then affects players.

Nonetheless, the most challenging part of this paper was that of collecting and sorting all the necessary data, thus developing an omni-comprehensive appendix, useful for anyone who would like to foster the research started here. In fact, this might be the first paper including this assemble of datasets, as in my quest for data, multiple sources had to be consulted.

One last implication that was only mentioned in this paper is that of the future of the NBA broadcast: the future of the league might involve partnership with the rising online streaming platforms. Therefore, since at the time I'm writing this, little-to-no information about this transaction process is known, I fully expect future researches to focus on the relationship between the NBA and, in place of TV, online streaming platforms.

5.5: Conclusions

At the end of this journey we've managed to understand how the NBA works economically, how its revenues are shared, what relationship it has with a few, relevant, CCI, and how profitable it is, in hindsight, to actually be part of the league – as an economic partner or as a player, as well.

Now, heading out, the main takeaway from my study, which is aimed to the NBA, but also sponsors and anyone willing to enter the league as a partner, is the following:

the NBA is a fast growing environment, and I fully expect it to start exploiting new opportunities (I've mentioned just a minute ago online streaming platforms as a relevant opportunity for the league's next future in broadcasting), with no fear for unsuccess, all while trying to maintain the image of youth and appeal that it has built over the course of the last few decades, thanks to appropriate deals and marketing decisions.

The ability of the league's commissioner and efficient management board to seize every profitable opportunity and exploit it to its full potential should make potential partners eager to team up with the NBA, since in no occasion the league left money on the table, but again, a close eye needs to be kept on potential recessions, as no one would want these opportunities to turn into failures. From the cases analyzed, we noticed that the NBA has managed to fight back from periods of crisis, always coming up on top of tough situations, and I expect, even with some degree of uncertainty, to see this pattern followed in the years to come.

APPENDIX

Following there is a complete list of the data used in correlation & linear regression function computation. The yellow columns represent inflation-adjusted (ia) samples.

Correlation	2003-2010	x values (sponsorship)	x values (sponsorship - ia)	y values (salaries)	y values (salaries - ia)
	2003-04	$ 410.200.000	$ 568.251.000	$ 3.774.460	$ 5.228.768
	2004-05	$ 446.600.000	$ 603.364.000	$ 3.778.738	$ 5.105.137
	2005-06	$ 471.800.000	$ 608.874.000	$ 4.033.486	$ 5.205.348
	2006-07	$ 499.800.000	$ 631.975.000	$ 4.124.308	$ 5.215.004
	2007-08	$ 527.800.000	$ 649.486.000	$ 4.468.723	$ 5.499.000
	2008-09	$ 530.600.000	$ 622.213.000	$ 4.919.808	$ 5.769.260
	2009-10	$ 536.000.000	$ 636.735.000	$ 4.898.903	$ 5.819.598
	2010-11	$ 572.000.000	$ 671.818.000	$ 4.852.351	$ 5.699.117
mean		$ 499.350.000	$ 624.089.500	$ 4.356.347	$ 5.442.654
standard deviation		$ 53.314.029	$ 31.458.814	$ 492.923	$ 289.213
for each of the n pairs:		$ 51.875.272.480.494	$ 11.943.073.411.000		
$(x_i - \bar{x}) * (y_i - \bar{y})$		$ 30.468.883.314.601	$ 6.995.208.583.500		
		$ 8.894.824.783.589	$ 3.610.729.443.000		
		$ -104.417.409.023	$ -1.795.134.075.000		
		$ 3.197.097.737.956	$ 1.430.991.189.000		
		$ 17.608.161.303.143	$ -612.876.159.000		
		$ 19.884.671.022.273	$ 4.766.645.352.000		
		$ 36.034.655.507.916	$ 12.240.594.295.500		
Sum		$ 167.859.148.740.947	$ 38.579.232.040.000		
Divide by sx*sy		6,387	4,240		
r		0,9125	0,6058		

Correlation Data, Sponsorships, 2003-10

Correlation	2003-2010	x values (tv deals)	x values (tv deals - ia)	y values (salaries)	y values (salaries - ia)
	2003-04	$ 766.000.000	$ 1.061.141.000	$ 3.774.460	$ 5.228.768
	2004-05	$ 766.000.000	$ 1.034.878.000	$ 3.778.738	$ 5.105.137
	2005-06	$ 766.000.000	$ 988.548.000	$ 4.033.486	$ 5.205.348
	2006-07	$ 766.000.000	$ 968.572.000	$ 4.124.308	$ 5.215.004
	2007-08	$ 766.000.000	$ 942.604.000	$ 4.468.723	$ 5.499.000
	2008-09	$ 930.000.000	$ 1.090.574.000	$ 4.919.808	$ 5.769.260
	2009-10	$ 930.000.000	$ 1.104.783.000	$ 4.898.903	$ 5.819.598
	2010-11	$ 930.000.000	$ 1.092.291.000	$ 4.852.351	$ 5.699.117
mean		$ 827.500.000	$ 1.035.423.875	$ 4.356.347	$ 5.442.654
standard deviation		$ 84.878.064	$ 62.140.179	$ 492.923	$ 289.213
for each of the n pairs:		$ 35.786.082.530.010	$ -5.500.532.997.750		
$(x_i - \bar{x}) * (y_i - \bar{y})$		$ 35.522.963.485.269	$ 184.242.092.375		
		$ 19.855.960.950.662	$ 11.123.926.392.750		
		$ 14.270.379.233.178	$ 15.218.829.343.750		
		$ -6.911.125.162.892	$ -5.230.028.676.750		
		$ 57.754.769.074.308	$ 18.012.361.725.750		
		$ 55.611.972.163.247	$ 26.144.506.014.000		
		$ 50.840.360.489.489	$ 14.584.313.478.875		
Sum		$ 262.731.362.763.270	$ 74.537.617.373.000		
Divide by sx*sy		6,280	4,147		
r		0,8971	0,5925		

Correlation Data, TV deals, 2003-10

Correlation	2003-2010	x values (league revenues)	x values (league revenues - ia)	y values (salaries)	y values (salaries - ia)
	2003-04	$ 2.930.000.000	$ 4.058.936.000	$ 3.774.460	$ 5.228.768
	2004-05	$ 3.190.000.000	$ 4.309.742.000	$ 3.778.738	$ 5.105.137
	2005-06	$ 3.370.000.000	$ 4.349.097.000	$ 4.033.486	$ 5.205.348
	2006-07	$ 3.570.000.000	$ 4.514.106.000	$ 4.124.308	$ 5.215.004
	2007-08	$ 3.770.000.000	$ 4.639.185.000	$ 4.468.723	$ 5.499.000
	2008-09	$ 3.790.000.000	$ 4.444.380.000	$ 4.919.808	$ 5.769.260
	2009-10	$ 3.810.000.000	$ 4.526.048.000	$ 4.898.903	$ 5.819.598
	2010-11	$ 3.960.000.000	$ 4.651.045.000	$ 4.852.351	$ 5.699.117
mean		$ 3.548.750.000	$ 4.436.567.375	$ 4.356.347	$ 5.442.654
standard deviation		$ 356.267.857	$ 195.475.906	$ 492.923	$ 289.213
for each of the n pairs:		$ 360.042.903.503.147	$ 80.770.064.273.250		
$(x_i - \bar{x}) * (y_i - \bar{y})$		$ 207.217.286.997.402	$ 42.805.720.093.875		
		$ 57.711.431.218.387	$ 20.757.244.809.750		
		$ -4.930.822.092.765	$ -17.651.667.981.250		
		$ 24.863.194.183.574	$ 11.416.692.698.250		
		$ 135.935.005.260.263	$ 2.551.650.200.750		
		$ 141.742.709.538.031	$ 33.729.184.710.000		
		$ 203.981.446.354.168	$ 55.005.575.140.375		
Sum		$ 1.126.563.154.962.210	$ 229.384.463.945.000		
Divide by sx*sy		6,415	4,057		
r		0,9164	0,5796		

Correlation Data, League Revenues, 2003-10

Correlation	2011-2018	x values (sponsorship)	x values (sponsorship - ia)	y values (salaries)	y values (salaries - ia)
	2011-12	$ 610.000.000	$ 689.766.000	$ 4.577.246	$ 5.175.787
	2012-13	$ 642.000.000	$ 711.777.000	$ 4.514.491	$ 5.005.159
	2013-14	$ 679.000.000	$ 743.983.000	$ 4.590.331	$ 5.029.644
	2014-15	$ 739.000.000	$ 796.520.000	$ 4.581.145	$ 4.937.716
	2015-16	$ 799.000.000	$ 861.501.000	$ 5.209.609	$ 5.617.125
	2016-17	$ 861.000.000	$ 914.957.000	$ 6.605.968	$ 7.019.956
	2017-18	$ 1.120.000.000	$ 1.164.193.000	$ 7.460.850	$ 7.755.241
	2018-19	$ 1.209.600.000	1209600000	$ 7.992.048	$ 7.992.048
mean		$ 832.450.000	$ 886.537.125	$ 5.691.461	$ 6.066.584
standard deviation		$ 221.970.442	$ 200.207.621	$ 1.442.417	$ 1.306.010
for each of the n pairs		$ 247.857.019.470.788	$ 175.283.214.551.173		
$(x_i - \bar{x}) * (y_i - \bar{y})$		$ 224.153.867.205.565	$ 185.494.842.692.703		
		$ 168.968.441.503.716	$ 147.820.137.199.301		
		$ 103.759.044.812.053	$ 101.617.491.533.909		
		$ 16.117.943.228.743	$ 11.252.722.739.479		
		$ 26.109.164.326.412	$ 27.094.700.544.220		
		$ 508.787.863.533.468	$ 468.865.414.550.440		
		$ 867.666.227.829.447	$ 622.045.639.885.582		
Sum		$ 2.163.419.571.910.190	$ 1.739.474.163.696.810		
Divide by sx*sy		6,7570	6,6526		
r		0,9653	0,9504		

Correlation Data, Sponsorships, 2011-18

Correlation	2011-2018	x values (tv deals)	x values (tv deals - ia)	y values (salaries)	y values (salaries - ia)
	2011-12	$ 930.000.000	$ 1.051.611.000	$ 4.577.246	$ 5.175.787
	2012-13	$ 930.000.000	$ 1.031.080.000	$ 4.514.491	$ 5.005.159
	2013-14	$ 930.000.000	$ 1.019.005.000	$ 4.590.331	$ 5.029.644
	2014-15	$ 930.000.000	$ 1.002.386.000	$ 4.581.145	$ 4.937.716
	2015-16	$ 930.000.000	$ 1.002.748.000	$ 5.209.609	$ 5.617.125
	2016-17	$ 2.600.000.000	$ 2.762.938.850	$ 6.605.968	$ 7.019.956
	2017-18	$ 2.600.000.000	$ 2.702.590.970	$ 7.460.850	$ 7.755.241
	2018-19	$ 2.600.000.000	$ 2.600.000.000	$ 7.992.048	$ 7.992.048
mean		$ 1.556.250.000	$ 1.646.544.978	$ 5.691.461	$ 6.066.584
standard deviation		$ 864.307.113	$ 864.094.095	$ 1.442.417	$ 1.306.010
for each of the n pairs		$ 697.776.841.733.337	$ 529.965.664.534.952		
$(x_i - \bar{x}) * (y_i - \bar{y})$		$ 737.077.234.641.561	$ 653.270.184.970.574		
		$ 689.582.838.003.926	$ 650.721.580.817.787		
		$ 695.335.492.921.863	$ 727.170.740.485.190		
		$ 301.759.699.461.894	$ 289.360.629.423.364		
		$ 954.516.296.521.645	$ 1.064.338.167.032.400		
		$ 1.846.799.974.136.870	$ 1.783.298.992.170.950		
		$ 2.401.237.240.612.450	$ 1.835.842.448.851.900		
Sum		$ 8.324.085.618.033.550	$ 7.533.968.408.287.110		
Divide by sx*sy		6,6769	6,6760		
r		0,9538	0,9537		

Correlation data, TV deals, 2011-18

Correlation	2011-2018	x values (league revenues)	x values (league revenues - ia)	y values (salaries)	y values (salaries - ia)
	2011-12	$ 3.680.000.000	$ 4.161.213.000	$ 4.577.246	$ 5.175.787
	2012-13	$ 4.560.000.000	$ 5.055.614.000	$ 4.514.491	$ 5.005.159
	2013-14	$ 4.790.000.000	$ 5.248.422.000	$ 4.590.331	$ 5.029.644
	2014-15	$ 5.180.000.000	$ 5.583.182.000	$ 4.581.145	$ 4.937.716
	2015-16	$ 5.870.000.000	$ 6.329.175.000	$ 5.209.609	$ 5.617.125
	2016-17	$ 7.370.000.000	$ 7.831.869.000	$ 6.605.968	$ 7.019.956
	2017-18	$ 8.010.000.000	$ 8.326.059.000	$ 7.460.850	$ 7.755.241
	2018-19	$ 8.640.000.000	$ 8.640.000.000	$ 7.992.048	$ 7.992.048
mean		$ 6.012.500.000	$ 6.396.941.750	$ 5.691.461	$ 6.066.584
standard deviation		$ 1.792.633.737	$ 1.673.121.887	$ 1.442.417	$ 1.306.010
for each of the n pairs		$ 2.598.905.362.623.570	$ 1.991.581.448.571.150		
$(x_i - \bar{x}) * (y_i - \bar{y})$		$ 1.709.548.396.513.960	$ 1.423.719.398.149.940		
		$ 1.346.131.767.600.480	$ 1.190.946.575.703.140		
		$ 924.338.200.171.579	$ 918.627.700.076.637		
		$ 68.663.883.709.892	$ 30.458.405.552.200		
		$ 1.241.442.752.122.760	$ 1.368.018.829.832.700		
		$ 3.534.354.920.563.730	$ 3.257.616.497.895.660		
		$ 6.044.791.233.254.330	$ 4.318.925.857.456.950		
Sum		$17.468.176.516.560.300	$ 14.499.894.713.238.400		
Divide by sx*sy		6,7556	6,6358		
r		0,9651	0,9480		

Correlation Data, League Revenues, 2011-18

SUMMARY

Introduction

In 2011, a lockout situation caused the National Basketball League (NBA), the US top professional basketball league, to postpone its beginning: players and team owners could not agree on the distribution of revenues, a common point of contrast in the NBA's history. As no NBA games were played in 2011 up until December 25th (the regular season is expected to start on October, usually), this resulted in huge amounts of money lost, since no games means no advertisings and no gate receipts, most relevantly. The situation came to a conclusion in December, then, when a redistribution of income was bargained ex-novo, and this then leads to the question fundamental for this study: was it all worth it? Did players' salaries benefit so much by this redistribution to make up for a stasis situation of this kind?

By the study of the correlation between players' salaries and the league's most relevant CCI (Cultural & Creative Industries), we will be able to answer this question, eventually noticing if the NBA's Business Model (BM) is worth modifying even further.

Therefore, this study will be divided into 5 chapters: chapter 1 will give an overview of the US professional sports leagues, in order to understand how these differ from the NBA, thus providing insights about the profitability of these models.

Chapter 2 will focus on the NBA environment, explaining its BM, thus describing how the league makes money, and how these are then distributed to teams and players.

Chapter 3 will introduce CCI to the equation, highlighting the more relevant ones, namely sponsorships and TV, therefore communicating us how the relationship of the NBA with these evolved over the years, with a particular focus on some interesting deals and innovations.

Chapter 4 will bring the statistical analysis to life: a correlation analysis between average players' salaries and CCI's values will be carried out, therefore studying whether these are related and to what extent.

In chapter 5 estimates about the NBA's next future will be drawn, before moving on to some conclusions and implications of this study.

Chapter 1: Business Model & Creative Industries in Sports

The concept of Business Model has been around for quite a while, as it has been first mentioned in 1957, when it was used as a synonym for "representation of reality". Nevertheless, it was not until the 2000s that this concept started to become more and more popular, and it assumed the connotation of a useful model describing the modes through which an organization creates, delivers and captures value.
Notably, a feature which made the BM doctrine so popular is its versatility: it has many applications, and it can be innovated in many different ways, depending on the needs of the business employing it.
Therefore, an entity such as the NBA, a sport league, has to employ a particular BM to ensure a competitive environment and a proper income distribution.

Strictly tied to the income side of the equation is the CCI sector: the main sources of revenue for most professional sport leagues around the world, and the NBA makes no exception, is represented by TV deals, sponsorships, advertisings, merchandise sale, all categories which fall into the CCI universe.
CCI represent all those industries which have origin in creativity and have the potential to create jobs and wealth. They encompass more than just the few industries above mentioned, as books, movies, gaming, music, radio are all examples of other sectors falling into the definition of CCI, according to the UNESCO official definition.

Now, when considering the US sports environment on the basis of these two basic concepts (BM and CCI), we notice that they both are fundamental for the lifecycle of the main 4 US professional sports leagues (the NHL, NFL, MLB and NBA), which all record billions of dollars in revenues.
More in depth: the NFL (National Football League) is the wealthiest league in the US, and manages to stay profitable mostly thanks to TV deals, licensing deals, and merchandising alongside common money-makers such as game ticket sales, sponsors and concessions.
The MLB (Major League Baseball) has revenue streams very similar to those of the NFL: TV deals, sales of concessions, ticket sales are its main revenue sources.

The NHL is the smallest of the 4 main professional sports leagues in the US, and it makes money through the same sources of NFL and MLB, even if it experienced a troubled history when considering the relationship between players and teams, which led to many lockout situations to happen over the course of the years.
The MLB and the NFL also experienced lockout situations, which can be seen as not-unusual events therefore, sometimes necessary to rebalance the economic side of the US professional leagues.

Chapter 2: The NBA Environment

The National Basketball Association (NBA) has been officially established in 1949, following the union of two competitor basketball leagues, the Basketball Association of America (BAA) and the National Basketball League (NBL).
The NBA, in its first decades, struggled to obtain a large fanbase, in that the MLB and the NFL were already established leagues which appealed the average US citizen.
We have to wait until the 1980s, and the birth of some on-court rivalries (such as the Los Angeles Lakers-Boston Celtics rivalry) to see the NBA burst onto the mainstream stage.
This golden age for the NBA was meant to last: barring short periods of sluggish growth, the league overall trend was a growing one, and we will see over the course of this study how this is even more true if we take a look at the post-2011 period, i.e. the years following the least lockout.

Before that, though, we are interested in understanding how the league works, economically. First thing first, what's the NBA Business Model?
Soon said, the NBA employs a "Franchise Model", quite common in the fast-food industry. To be clear, that's the MacDonald's Business Model, involving a franchisor granting a franchisee the license to use its knowledge, trademarks and processes to provide goods or services under the franchisor's name.
Since here we're talking about a sports league, things are a little different: the NBA grants investors the possibility to introduce a team to the league, in exchange for a fee, and after an in-depth scrutiny of the request by the league's officials board.

Teams being part of the NBA must respect some strict regulations, such as the Salary Cap rule and the Luxury Tax. The first one is a cap that teams cannot overcome when considering the sum of all the salaries they pay to their players in a given year. This Salary Cap is generally referred to as a "soft cap", in that it can actually be breached.

If this happens, though, the Luxury Tax comes into play: a team who overcomes the cap by a given amount must then in turn pay that "over the cap" sum to the league, just like a common fine, and those money are then distributed to the teams which manage to stay "below the cap". This process of redistribution is expected to keep the league healthy and competitive.

This, however, still does not tell us how the NBA makes money. Soon said, there are two main categories of income: Basketball-Related Income (BRI) and Non-BRI.

The first includes all the money coming from gates receipts, TV deals, concessions, sponsorship money, naming rights agreements, and, more in general, all the money coming from activities directly related to basketball.

Non-BRI, instead, includes revenues stemming from sources not tied to the game of basketball. Therefore: sale of real estate by teams, money collected for charitable purposes, interest income, insurance recoveries…

All the money earned through these sources are then distributed following a particular division pattern: 50% of these revenues go to the teams, while the remaining 50% go to the players. This split has been the main contention point that caused the 2011 lockout, notably. The money players receive, actually, never amounts to the exact 50% of the total revenues, as at the beginning of the season, a forecast is computed concerning the BRI amount. If the estimate is higher than the actual BRI at the end of the season, players are entitled to half of the estimated value *minus* the 60.5% of the difference between the estimated BRI and the actual BRI. If the estimate is lower, instead, the opposite happens: players get 50% of the estimate *plus* 60.5% of the difference between the actual amount and the estimated amount.

These messy calculations are vital for the league's economy, and it is not surprising that the share of BRI to be destined to players has always been a tough point of contention.

Notably, the share of BRI destined to players, alongside the most relevant factors regulating the league and the relationship between players and teams, are all topics

covered in the "Collective Bargaining Agreement", a contract between the NBA and its employees (the players), which sets out the conditions of employment.
This is generally bargained on a regular basis by the NBA's executives, the team owners and the players' representatives, and disagreements on its composition eventually lead to lockout situations.
The NBA experienced many lockouts during its history, the most relevant of which have been the 1998 one and the 2011 one (the last one).
After the 2011 lockout, BRI for players was cut from 57% to 50%, but what's striking about this is that, following this cut, players' average salaries reached heights never touched before, as chapter 4 will then prove.
Nowadays, the main sources of revenues for the NBA have not changed, and we will now see more in detail how some CCI benefit the league.

Chapter 3: The NBA & Its CCI

The NBA employs more than one CCI in order to keep its revenue stream flowing, and there are a couple which are worth analyzing in depth for their economic magnitude: the sponsorship environment and the TV broadcasting system.

First of all, the relationship of NBA teams with TVs started in the league's early years, as the New York team, the Knicks, already had its games televised in 1948. However, the NBA itself did not start a relationship with TV networks until the 1053-54 season, when it partnered with DuMont Television Network, a network deceased in 1956.
This first deal was worth $39.000 and provided for a maximum of 13 afternoon games to be televised. Notably, team owners were afraid that televising their teams' games might cause massive losses due to the expected preference of fans for TV games rather than live games. As such, the cities in which the games were played did not have access to the live broadcast of said games. This fear was quite ungrounded, as televising games rather increases fanbases and hence revenues for teams.
Now, following this first deal, the league managed to snatch ever richer deals with private networks (broadcasting on cable-TVs) and public networks, with the latter providing

richer deals than the first, a trend that lasted until the 2000s, due to the lower rate of diffusion of cable-TV in the 20th century.
Nonetheless, TV deals started to reach ever higher sums: starting from 2003 the NBA earned an average of $766 million/year up until 2007, when the league managed to renew its deals to make them even wealthier. In fact, starting from 2008, until 2015, a new deal entered the fray: in this period, the NBA was paid an average of $930 million/year. Then, in 2016 another deal with popular broadcasters ESPN, ABC and TNT was bargained, this time worth $2.6 billion/year, expected to last until the 2025-26 season, a net 215% increase from the previous deal.
The ever-growing value of TV deals gives us a hint of how profitable the NBA started to become from the 2000s, trend that is reflected also in the sponsorship environment, which is the next topic we're going to address.

Sponsorship is one of the most intuitive ways a company can choose to become partner with the NBA, and, in turn, is one of the most profitable for the league, which manages to pack sponsors everywhere: from teams' arenas' names, to assets essential to the development of the games (basketballs, timers), to player-directed goods (soft drinks), everything in the NBA is branded and sponsored.
In fact, the growth rate of sponsorship revenue in the NBA has been insane: in 2009-10 the league earned $536 million from sponsors, and in 2017, not even 10 years later, revenues from this category jumped to $1.120 billion.
Nonetheless, in recent years some relevant sponsors decided on their own that their time with the NBA was over, thus unexpectedly concluding their relationship with the hoops league: this is the case of Adidas, which has been the official NBA gear supplier for over a decade, providing high-quality jerseys to all 30 of the NBA teams, and of the Coca-Cola Company, which was the official provider of soft drinks for the league.
The first one decided not to renew its partnership with the NBA, folding to Nike, simply because the returns it was receiving from this investment were not as high as expected. As such, Nike chimed in and exploited this opportunity to its fullest and cementing its position as the world number one in official sports' gear supplier.

Coca-Cola, on the other hand, folded to its rival PepsiCo, for reasons quite similar to those that made Adidas end its partnership with the NBA: the partnership of Coca-Cola with the NBA was not effective and efficient as the company's Board was expecting.

The NBA, on the other hand, always looks for new opportunities to improve its position, and the new partnership with Nike, together with some rule changes that decreased the time slots dedicated to advertisements, paved the way for the introduction in 2017 of jersey patches, i.e. company's logos on the teams' jerseys, a for of sponsorship common in other sports (such as European football), but never exploited by the NBA. This novelty showed that there were still untapped opportunities as far as partnerships with sponsors are concerned. Namely, they brought in the league's vaults well over $150 million in 2018-19 (the second year of this 3-year trial period), a value which is expected to rise in 2019.

Now, the Adidas-Nike experience, for one, introduced a question relevant to sponsors: is it that appealing to be part of the NBA?

The NBA wants to be sure it keeps its most relevant partners, and a model called "eduselling" comes in our aid when we turn to analyze whether a partnership deal is worth repeating or not (Figure 6).

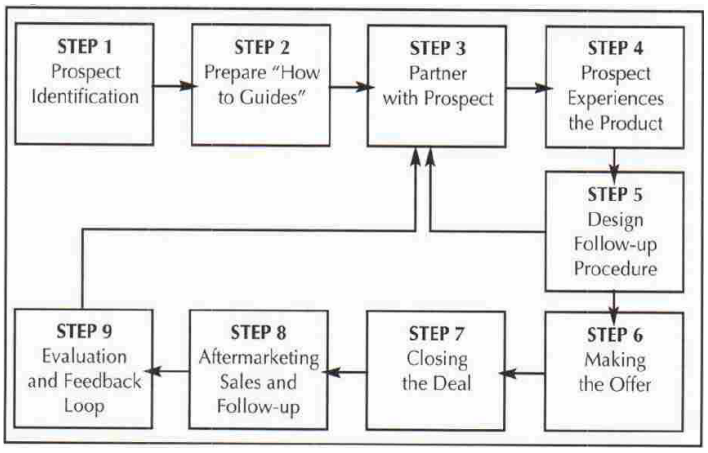

Figure 8

This is a 9-step model, which moves from the identification of a valuable prospect all the way to the design of the relationship procedure, in order to evaluate whether a partnership is as valuable as expected. One of the relevant players in this model is actually the customer: he's the one to whom sponsorships and other initiatives are directed, and as such needs to provide useful feedbacks to help the league understand whether what it is trying to accomplish is feasible and profitable or not.

Chapter 4: Study on Correlation Between Players' Salaries & CCI

Now that we know how CCI work within the NBA environment, it is now time to move on to a statistical analysis, which will concern three main questions:

1. Is there a correlation between the ever growing CCI analyzed and the players' salaries?
2. If there's any correlation, how strong is this?
3. How will – and – should the league's BM evolve on the basis of this?

Analyzing these statistics will help us better understand the tie between the league, in the form of its players, and the CCI that make the league profitable, and this will be done through a correlation analysis.

This will be done by first picking two time periods: the 2003-to-2010 season span and the 2011-to-2018 season span. These periods have been chosen in order to have a better understanding about how the league's economy changed in the years following the 2011 lockout up until today, and, for consistency, the same time span has been applied to the seasons preceding the 2011 one.

Players' salaries have been a topic which we have not touched yet in the chapters preceding this one, therefore it will now be addressed.

Average salaries experienced a steady growth over the course of the years: the data available to us date back to 1991, when an average NBA player earned a little below $1 million/year (see Table 1). This average value slowly increased all the way to nearly $8 million in 2018-19.

There have been some slumps over the course of the years, of course. Notably, in 2004 average salaries stopped growing, due to the introduction of the 30th NBA franchise: this brought average salaries back below the $4 million threshold. Furthermore, following the 2008 world recession, salaries stopped growing once again, and hovered in the $5-to-$6 million range for quite a while, as Table 1 shows.

Moreover, in 2017 this lackluster period of growth ceased, when the NBA coincidentally bargained a TV deal worth over $2 billion, boosting the average salaries to never seen heights.

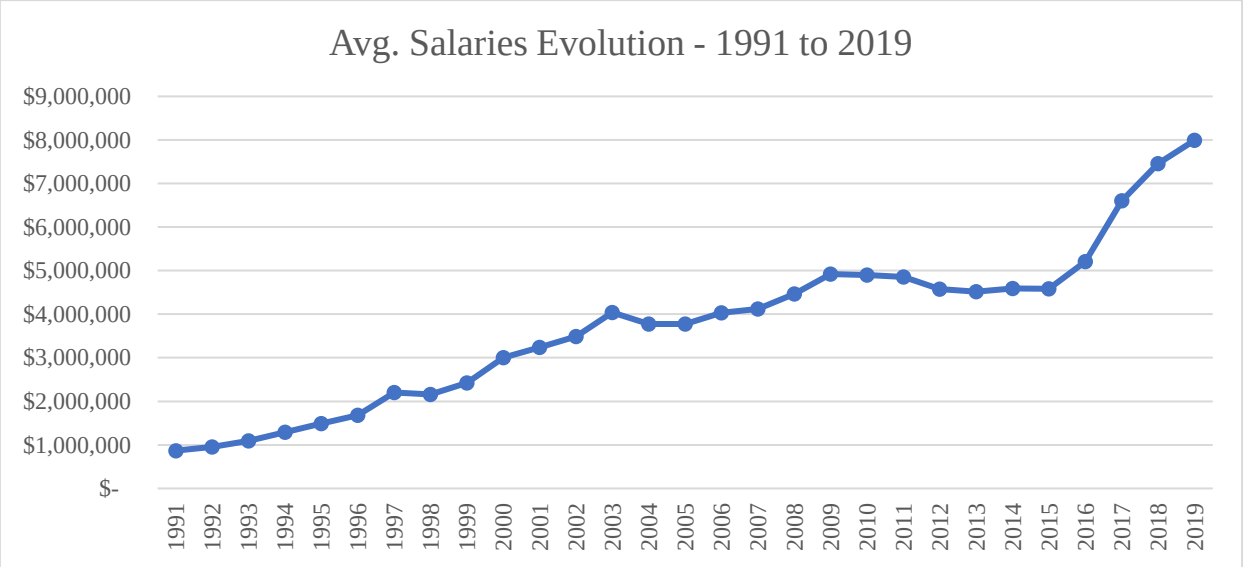

Table 3

Now, adjusting all the data considered here for inflation, we notice that the trends highlighted just above are still true, and actually the numbers seem more consistent with one another: the increase in average salaries appears less sudden, thus showing a steadier growth process.

In order to perform the correlation analysis one thing needs to be done: computing the correlation coefficient, r, which will inform us about the association degree between two variables, indicating the extent to which these move together.
Since correlation does not imply causation, we will consider another technique to dig deeper into the relationship between the variables we'll analyze, that is: linear regression, which indicates the impact of a unit change in the known variable, x, on the estimated variable, y.
The correlation coefficient r has been computed following the very common formula

$$r = \frac{1}{n-1} * \left(\frac{\sum x * \sum y * (x_i - \overline{x}) * (y_i - \overline{y})}{s_x * s_y}\right)$$

[Formula 1]

Where:

- r = the correlation coefficient on the linear relationship between the variables x and y;
- n = the number of years considered (in our case, 8);

- x_i = the value of the x-variable in a sample;
- $\overline{x}$ = the mean (average) of the values of the x-variable;
- y_i = the value of the y-variable in a sample;
- $\overline{y}$ = the mean (average) of the values of the y-variable;
- s_x = the standard deviation of the x-variables;
- s_y = the standard deviation of the y-variables.

While the linear regression equation has been computed following the formula:

$$y = \left(\bar{y} - (r\left(\frac{s_y}{s_x}\right))\bar{x}\right) + \left(r\left(\frac{s_y}{s_x}\right)\right)x$$

[Formula 5]

Keep in mind that y, the dependent variable, will always represent players' salaries, while x, the independent variable, will be used to indicate sponsorship values (both inflation adjusted and non-inflation adjusted), TV deals value (inflation adjusted and non-inflation adjusted) and NBA total revenues (inflation adjusted and non-inflation adjusted). Furthermore, these two formulas will be applied both for the 2003-10 period and the 2011-18 one.

From the 2003-10 season we get interesting results, as the non-inflation adjusted datasets all have extremely high r: 0,9125 is the r between sponsorship values and average salaries, 0,8971 between TV deals and average salaries, and 0,9164 between NBA total revenues and average salaries.

Now, these high values tell us that salaries are clearly related to the money coming from CCI, but also to total NBA revenues, interestingly enough. Linear regression equations, furthermore, just reinstate these relationships: they basically tell us that the relationship between salaries and the independent variables considered is actually as high as expected.

When we take a look at inflation-adjusted data, something slightly different happens: the r in this case are much lower, amounting to 0,606 (between salaries and sponsorships), 0,5925 (salaries and TV deals) and 0,5796 (salaries and revenues), thus falling into the "moderate correlation" band. This is of particular interest, because it tells us that inflation-adjusted data are less correlated than the non-adjusted ones. Nonetheless, a correlation coefficient of 0,60, on average, is still high enough to ensure the presence of a relationship between the samples under scrutiny.

As for the 2011-18 period, the results are very similar: non-inflation adjusted data have actually even higher correlation coefficients, amounting to 0,9653 (salaries and sponsorships), 0,9538 (salaries and TV deals), and 0,9651 (salaries and league revenues). These data show us that, following the 2011 lockout and the renegotiation of the Collective Bargaining Agreement, the relationship between players' salaries and the CCI employed (and league's total revenues) became even stronger than before the lockout, thus reinstating the economic effects that this situation brought to the NBA.
Worth noting, the inflation-adjusted data have r extremely close to their non-adjusted values: 0,9504 for salaries and sponsorships' r, 0,9537 for salaries and TV deals, and 0,948 for revenues and salaries. These data here are maybe a bit less interesting than the pre-lockout inflation-adjusted data, for the simple reason that inflation in this last few years impacts recent data in much less drastic ways than it did with data from the early 2000s.
Now, answering the original question posed at the beginning of the chapter: there actually is a correlation between CCI and players' salaries, and interestingly enough, this correlation became even stronger over the years, especially after the 2011 lockout.

Chapter 5: Conclusions & Expectations About the NBA's Future

Simply put, since the NBA does not provide for official, exhaustive data, as it is not a publicly traded company, it is impossible trying to estimate economically the future of the league.
Nonetheless, we can give a general idea about the trend that the league might follow: it is easy to say that the growth process that featured the NBA over the course of the last few years will keep going.
One thing must be kept in mind, though: optimistically, this growth will not stop anytime soon, but what's more likely, actually, is that a repetition of the inflection period, followed by a growth period which happened in the 2008-2014 timespan, will happen, in that it is unlikely that the pace the NBA is following will be sustainable forever.

Notwithstanding this, the NBA has still many deals with sponsors and TVs set to run until the 2020s, and, once these will come to an end, unless the TV industry will have reached its ceiling, new deals worth even more than the ones running right now are fully plausible to be signed. In fact, I fully expect this to happen, in that the NBA fanbase is growing at an insane rate, and this will simply lead networks and various sponsors to be willing to partner with the hoops league.

This study has some limitations, though, in that the data used for the analyses brought to life here are not official data released by the NBA, which, as already said, does not publicly release its financial statements.
Even if the data used come from reliable sources, the research here could be improved year-by-year with the constant updating of said datasets.

Now, after the research made, the only suggestion I feel like giving to the NBA and sponsors willing to partner with the league is the following: do not underestimate any opportunity, seize any one of these you can, fearlessly. All in all, the NBA, over the course of the years thought us that there's one thing it is particularly good at: not leaving any money on the table.