

University of Arkansas, Fayetteville

ScholarWorks@UARK

Finance Undergraduate Honors Theses

Finance

5-2021

Exploring the Impact of Coronavirus Response Policies on the Long-Term Financial Health of Sports Leagues Around the World

Alexander Seager

Follow this and additional works at: <https://scholarworks.uark.edu/finnuht>



Part of the [Business and Corporate Communications Commons](#), [Corporate Finance Commons](#), [Finance and Financial Management Commons](#), [Organizational Behavior and Theory Commons](#), [Performance Management Commons](#), and the [Sports Management Commons](#)

Citation

Seager, A. (2021). Exploring the Impact of Coronavirus Response Policies on the Long-Term Financial Health of Sports Leagues Around the World. *Finance Undergraduate Honors Theses* Retrieved from <https://scholarworks.uark.edu/finnuht/69>

This Thesis is brought to you for free and open access by the Finance at ScholarWorks@UARK. It has been accepted for inclusion in Finance Undergraduate Honors Theses by an authorized administrator of ScholarWorks@UARK. For more information, please contact scholar@uark.edu.

Exploring the Impact of Coronavirus Response Policies on the Long-Term Financial Health of
Sports Leagues Around the World

By:

Alexander D. Seager

Advisor: Dr. Amy Farmer

An Honors Thesis in partial fulfilment of the requirements for the degree Bachelor of Science in
Business Administration in Finance and Economics

Sam M. Walton College of Business

University of Arkansas

Fayetteville Arkansas

May 1, 2021

Introduction

Throughout history, the sports entertainment industry has proven to be incredibly resilient, regardless of what is happening economically around it. Outside of war-time stoppages, most leagues have continued operation through recessions and depressions, with the only reasons for postponements or cancellations of significance resulting from labor disputes and lockouts. Despite this financial resilience in the past, the Coronavirus pandemic of 2020 and 2021 is one crisis that the industry could not weather unscathed. The pandemic has had many widespread ramifications on an immense number of people and industries over the course of the last year-plus, with infection numbers at the time of writing of than 100 million people across the world and over 2 million deaths. Different people, and indeed different countries, have responded to it in numerous different ways, to varying degrees of success across all walks of life. Sports leagues around the world are no different. This paper will outline and explore the responses of leagues in the United States and Canada, the United Kingdom, and Spain, with an emphasis on how these decisions affected the overall financial health of sports leagues within them.

While the brunt of the Coronavirus can be felt in nearly all facets of life, the goal of this paper is to research policies specifically tied to sports. There is much more to the COVID response than simple economics, but the scope of this paper is to dig into sports and the financial health of leagues moving forward. The intention is not to downplay the severity of health risks, so while the points will be based mostly around the finances of leagues, health and wellness of both players and spectators will also be taken into account. This paper will not, however, explore in-depth how major national responses impacted the countries as a whole.

Methodology

Given that the research will explore responses in leagues around the world, it is important to determine which leagues will be discussed, and why they were chosen. First and foremost, the biggest disclaimer is that research will be conducted across leagues of three separate sports. For the United States and Canada, the leagues in question are the National Basketball Association, and the National Hockey League. The leagues in the United Kingdom and Spain, the English Premier League and Campeonato Nacional de Liga de Primera División (La Liga), respectively, are soccer leagues. This brings up challenges in comparison, as the leagues were already in different financial situations before the pandemic and ensuing lockdown, and due to the nature of the sports some policies were potentially necessary for one of the sports while not necessary for the other. This is in fact the point of writing this paper- to explore which policies were implemented, and if those policies could have been effective across the leagues. Therefore, while comparison between sports will be difficult, it was more important to view leagues of similar cultural significance, timeline of season, and financial standing rather than purely of the same sport.

Due to cultural differences, soccer is not a major sport in the United States, and therefore comparing the soccer leagues in Europe to Major League Soccer, for example, would not have been a valuable comparison. Conversely, the United Kingdom and Spain do have basketball leagues, but they are not on the same financial plane their respective soccer leagues

are, and the hockey leagues within the countries are even smaller still. Thus, there would have been similar comparative issues. That said, the three sports, and all four leagues, had seasons running at the onset of the pandemic and have since started new seasons. Again, while the sports are different and the responses needed are different, the similar timeline offers a picture into how effective certain policies were and are, in terms of continuing the season interrupted by COVID and examining how the next season was approached as well. This timeline of the season is the main reason why neither the National Football League nor Major League Baseball in the United States were ultimately not chosen, despite being the preeminent sports in the States. Finally, in terms of a macro-level view of economic standing pre-pandemic, the NBA is the third biggest sports league in the world, the Premier League is number four, the NHL is number five, and La Liga is number six. This similarity in size allows for easier comparison than say the NFL, which is the largest by a wide margin, or the MLS, which is fifteenth.

Pre-COVID Financial Standing

Despite the leagues all being relatively close in terms of revenue before the pandemic, it is important to outline the specific numbers and main sources of that revenue. By outlining each league's financial standing before the Coronavirus hit, it will be easier to see why certain decisions were made and assess how effective they were. The leagues will primarily be viewed as a whole, despite revenue not being shared evenly between the teams, although this fact will be explored later.

Beginning with the NBA, according to data compiled on Statista.com, in the 2018/19 season the league had a revenue of 8.76 billion dollars. This represented a 9.3% increase over the past year, and an almost 70% increase from the \$5.18 billion in revenue five years prior. Much of the revenue came from lucrative television contracts, with the league's contract with TNT bringing in more than \$1.25 billion per year, and a separate contract with ABC/Disney bringing in another \$1.4 billion per year. Another substantial portion of revenue comes from sponsorship and licensing deals, as the league receives an estimated \$600 million per year from its combined 33 brand partners. The most valuable of these sponsorship deals is the agreement with 2K gaming, who spent \$1.1 billion on a 7-year contract to license the league. Additionally, Nike spends \$125 million of their own per year to remain the official jersey supplier of the league as part of an ongoing 8-year deal.

Further, prior to the 2017/18 season teams were allowed shirt sponsors for the first time. This initiative was a widespread success across the league, with all 30 teams initially agreeing to partnerships. These deals are generating \$182 million across the league, and every team maintained their partnerships into the 2018/19 season. The Dallas Mavericks became the first team to terminate their shirt sponsorship deal, before the start of the 2019/20 season, although resigned with a separate sponsor in January of 2020.

Finally, one important note to make regarding revenue before the pandemic broke out is the NBA's deteriorating relationship with China at the time. China and Chinese businesses were expected to be major players in terms of both television and sponsorship contracts for the 2019/20 season. In October of 2019 however, Daryl Morey, General Manager of the Houston Rockets, spoke out against the inhumane treatment of protestors in Hong Kong. In response

several Chinese entities cut or suspended ties with the league. As the largest international consumer of the league, losing these agreements cost the league hundreds of millions of dollars even before the pandemic.

As for the NHL, league revenue topped \$5 billion in 2018/19, up 4.7% from 2017/18, and up 27.9% since 2014/15. Similar to the NBA, television contracts account for a decent chunk of league revenue. Given that the NHL is popular in both the United States and Canada, they negotiated separate T.V. deals in the countries. In the U.S., the broadcasting partner for the 2018/19 season was NBC, and that deal brought in around \$200 million per season. In Canada, where the league is debatably even bigger than in the States, the broadcasting rights belong to Rogers Communications, who committed to a 12-year, \$4.9 billion dollar contract in 2013, bringing in another roughly \$400 million per year for the league. Also like the NBA, the NHL also takes advantage of lucrative endorsement and licensing contracts, with 2K gaming also partnering with them to license the NHL 2K series.

Unlike the NBA, the largest portion of the NHL's pre-COVID income came from ticket sales, merchandise, and concessions. According to Statista the NHL generates approximately 36% of total league revenue from gate receipts, as opposed to only around 22% in the NBA. This means that of the roughly \$5 billion brought in from 2018/19, over \$1.75 billion came from gate receipts.

Continuing to the Premier League, the league brought in 5.85 billion euros in revenue in the 2018/19 season, equaling roughly 6.7 billion dollars. According to an annual report put together by Deloitte, revenue grew by around 7.5% between 2017/18 and 2018/19. Similar to both aforementioned leagues, this growth was spurred mostly by effective broadcasting deals. As a truly international league, the Premier League has broadcasting deals across a number of countries, with their deal with Sky and BT in the United Kingdom as the crown jewel. The domestic contract was a 3-year deal worth around 5 billion pounds, or around 1.7 billion pounds (\$2.3 billion) per year. Further, the international contracts were also 3-year deals worth a combined 1 billion pounds (\$1.3 Billion) per year.

As far as matchday receipts go, the Premier League has the lowest share of gate receipts as a percentage of revenue of any of the four leagues, at only around 13% in 2018/19. This percentage is low, however on a purely dollars-and-cents basis, this percentage still translates to around 776 million Euros (\$889 million). Lastly, like the aforementioned leagues, large proportions of the Premier League's revenue also come from sponsorships. Again, according to Deloitte, in 2018/19 the Premier League brought in over 1.6 billion euros (\$1.8 billion), because of these deals, or 28% of their total revenue. These sponsorship deals ranged across many different facets, with major sponsorship deals for the jerseys and for the stadium naming rights accounting for a majority.

Finishing with La Liga, with stats coming from the Deloitte annual report once again, the league brought in 3.375 billion euros of total revenue (\$3.86 billion), a growth of 9.87% from the year prior. The breakdown of their revenue streams is similar to the prior leagues, with broadcasting rights making up the largest share of the revenue, followed by sponsorships and then matchday receipts. For the exact data, of the 3.375 billion euros, broadcasting deals made

up around 54%, or 1.83 billion euros (\$2.09 billion), 30% came from sponsorships, 1.023 billion euros (\$1.17 billion), and 15% came from matchday receipts, 521 million euros (\$596 million).

While the statistics can be dense, in breaking down how the leagues made their money, and in some cases from whom, it is easier to see why the leagues made the decisions they did in response to COVID.

COVID Responses

While the revenue streams of the leagues offer a frame of reference for league health pre-pandemic, it is simply meant to be a baseline and control for the heart of this paper- how the actions of the leagues in the wake of the pandemic mitigated potential losses and attempted to keep them afloat and successful into the future. Therefore, in this next section, those responses will be outlined and compared to see how the leagues attempted to do just that. First, the initial responses, or those within a few days to weeks of the outbreak, will be outlined. Next will be the middle responses, or those in the months following the outbreak and the restarting of the leagues. Last will be the responses with an eye to the future, or those geared toward the 2020/21 season and beyond.

Though the initial outbreak of COVID cannot be precisely pinpointed, by early March 2020 it was a point of discussion, and some actions were being taken to stymie its spread. Regardless of this fact, on March 9, Rudy Gobert, a player for the Utah Jazz in the NBA, made a point of touching every microphone at one of his press conferences to downplay the severity of the virus and add some levity. Unfortunately, this ended up doing the exact opposite as two days later it was announced that Gobert had tested positive for the virus. Due to his antics at the press conference, and attempting to save face, the NBA responded quickly by postponing the Jazz's game that night. While the initial outbreak in the states cannot be pinpointed, this joke and ensuing postponement was the first domino to fall, and more drastic measures by all four leagues followed soon after.

After the NBA's initial postponement of the game, they made a statement that night, March 11, saying that once the games already in play ended, they would suspend play indefinitely. On the next morning, the NHL followed suit, suspending play themselves. Despite not having any positive cases at the time, the NHL and NBA share 11 buildings across the country, which was the main cause for swift action. Both leagues announced that play was suspended in the interest of safety, and that they would continue to monitor the situation as progressed. They did not give an exact goal for a restart, emphasizing the importance of securing player safety.

Across the Atlantic, while the Rudy Gobert situation had no bearing on the immediate responses of La Liga and the Premier League, they were having issues with positive tests of their own. After playing a game in Milan a few weeks prior, a hotspot for the virus at the time, Spanish team Valencia CF was dealing with the effects, and other players across the league were also self-isolating to avoid contaminating teammates. Despite a desire to play the games the following weekend, on March 12 officials from Spain announced that play would be suspended across the league. In contrast to the NBA and NHL however, this suspension was not

intended to be indefinite, and the initial statement called for play to resume behind open doors two weeks later. Despite this intention, they were forced to extend the suspension further given a lockdown order issued by Spain's Prime Minister a few days later.

The last of the four leagues to suspend play, albeit only a day after La Liga's and the NHL's statements and only two days after the NBA's, was the Premier League. Similar to the others, this shutdown came as a result of breakouts among players and staff of multiple different teams across the country, and on the morning of March 13 the Football Association in the United Kingdom announced a hiatus with the goal of restarting on April 4. Like the Spaniards however, as the climate worsened and infection rates rose, they too extended their stoppage until at least April 30. Despite setting April 30 as a goal, the FA announced that there was no intention of restarting in the short-term, simply saying that there was no need to cancel the season and that play would resume eventually.

Now, it is important to examine just how crucial of a juncture this was, and the impact and repercussions that this could have on the leagues' financial health. First and foremost, it is critical to remember that this situation was made for the wellness of all players, staff, and team personnel, and that their safety was the reason why these decisions were made so quickly and decisively by all parties. That said, full cancellations of the respective seasons of these clubs would be catastrophic financially. At the time of the stoppages, the NBA had 259 games left to play, the NHL had 189 games remaining, 92 games remained in the Premier League, and 110 were left in La Liga's season. Given the circumstances it was clear that in-person attendance was no longer an option, and this on its own was serious.

The total un-played games accounted for between 15% of the total season in the NHL, up to almost 29% in La Liga, and that is not to mention the playoffs for the NBA and NHL. Based on the data from the 2018/19 season, even for the Premier League, whose gate receipts are the lowest relative to the other leagues and account for only 13% of revenue, cancelling nearly a quarter of their games in a season means they would lose out on over \$200 million from gate receipts alone. It becomes even more drastic for the NBA and the NHL, with early estimates for gate receipt losses for the NBA getting over \$500 million. Losing these ticket revenues looked more and more likely as the situation progressed though, and the bigger issue would be the dent in revenues left by unfinished contracts with broadcasters or sponsors that could pull out. For all the leagues, broadcast revenue represented the lion's share of the total, and as such they all made decisions to try to satisfy their broadcast partners.

The situation was similar in all four leagues, and as such they all began to evaluate their options across the next few months. Over those next few months, policies across the leagues were still relatively similar. All the leagues were completely shut down into May, but by mid-May training was opened back up under strict guidelines. Once testing capabilities had increased, the NBA, Premier League, and La Liga began voluntary workouts, with testing each day to ensure the players were not transmitting the virus. The initial phases of response were geared toward players getting back into shape and remaining healthy, however by June were ready to pick the seasons back up and finish them out.

These continuation policies are where some differences show up between the leagues. While no leagues cancelled their seasons, the European Leagues differed from the American ones in that the Premier League and La Liga finished their seasons in their entirety, while the NBA and NHL modified their seasons to include only a few games then the playoffs.

La Liga was the first league to resume their games and did so on June 11. With 110 games left to play, and with their sights set on restarting the following season as close to on time as possible, the league's goal was to finish the remaining games by mid-July. To accomplish this teams played on average every three days for a month. By cramming so many games into this period, despite the toll it took on players, it meant that every day the league would have at least one game to broadcast from June 11 until July 13. In doing so, despite these matches being played behind closed doors, and missing out on the gate receipts and matchday revenue, they were able to fulfill obligations made to sponsors and broadcast partners buoying these deals. Considering that they were one of the first leagues in the world to restart, this also meant that more eyes than ever would be on their games as people yearned for sports entertainment.

The Premier League restarted not long after La Liga and did so in much the same manner. They restarted their games on June 17 and finished up the season on July 26. With a few extra days to finish up games, and a few less games to be played overall, there were not games broadcast every day, however it was close. Their broadcast partners had a mixed reaction to the restart, as although they were pleased to get games late rather than not at all, and potentially getting more eyes on the product, broadcasters still required rebates given that games were not played on agreed upon dates. The main qualms came from the international partners of the Premier League, who constituted a larger portion of partners relative to Spain. These international partners, who made their contracts with the expectation that games would be played in primetime given the time zone differences, were perturbed when the games were scheduled to accommodate primarily the domestic broadcasters. That said, by both the Premier League and La Liga cramming the rest of the season into this short timeframe it allowed them to potentially restart the next season close to on time. It was hoped that by playing out the season like this, any ill will from the broadcasters, and any potential rebates to be paid out for the COVID season, would not carry over after the league started up the 2020/21 season.

The NBA and NHL restarted their own seasons much later, and in quite different ways to their European counterparts. While the Premier League and La Liga played their games behind closed doors in teams' home stadiums and played all their games, neither the NBA nor the NHL did these things.

As an overview, the NBA had more than 250 games left in the regular season when it was put on hold, and those games were to be played by all 30 teams in the league. After deliberation about how to restart, instead of all the teams playing out all their games, the slate was dropped down to only 88 regular season games among just the 22 teams who still had a mathematical chance at making the playoffs. The remaining 8 teams played no more games, meaning their seasons effectively ended in March. Furthermore, in what is the biggest difference between the NBA and the European Leagues, instead of playing their games in their own arenas in the teams' home cities, all the remaining games would be played in a "bubble,"

or an isolated area in a host city where only players, team personnel, and essential workers would go.

In-terms of player safety, there was likely not a better way to mitigate the spread of COVID than using a bubble. This was an area where only those essential to the continuation of games would be, and under the expectation that the bubble did its job of isolating everyone, theoretically there should be no positive cases for the duration of the season. Creating and maintaining the integrity of the bubble was not easy though, nor was it cheap. The NBA had to set up and operate the bubble over a span of nearly four months, from early July, when the first players arrived, through to mid-October when the playoffs would end.

All told, experts estimate that the bubble cost more than \$180 million, but executives felt this was a needed investment. Again, this area intended to allow the league to effectively ensure that none of the players would get COVID, and in turn this allowed them the peace of mind that all games would be played. As a bonus, the bubble was set up at the ESPN Wide World of Sports Complex in Orlando, Florida. Referencing the data from above, the NBA's biggest broadcast partner is ABC, a company owned by Disney. In a time when everyone was at home in quarantine, this exposure was a nice shot in the arm for the company. No one would be able to go to the Disney Parks or other properties while on lockdown but being the hosting partner of the NBA still allowed them to reach those people and benefit from their viewership.

The bubble was a massive success overall for the league. The basis of all the restarts was on safety, but in the European leagues cases would still pop up as players traveled around, no matter how strict policies were. In the NBA however, the bubble worked to perfection as there were zero positive cases the entire time the league was playing. This success was twofold, as the league got the good press for having a strict restart plan, which was needed after the Rudy Gobert fiasco jumpstarted the shutdowns in the first place, and it also ensured that no players would be going out of games for reasons not causally related to the games themselves.

In terms of finances, while the gate receipt losses remained, according to estimates, the bubble preserved over \$1.5 billion in revenue for the league. Much of this revenue came from fulfilling the broadcasting contracts, however by moving out of home arenas and into the new venue, it also left the league with the freedom to, and perhaps the necessity to, experiment with new types of advertising. Virtual signage was a big part of this advertising push, as the league would overlay sponsor's logos on the court in a way not possible during normal times. Due to not being in their home stadiums like the European teams, arena sponsors had to be either satisfied or compensated. To accomplish this the NBA used overlays on the court that gave the appearance of teams' home courts, such as logos for American Airlines and Fiserv. Inc for games that would have been played in the American Airlines Center in Miami or Fiserv Arena in Milwaukee.

Additionally, two of the main sponsors, the presenting partner Youtube TV, and beer brand Michelob Ultra, had their logo physically painted on the court for the NBA Finals, and were given a virtual "courtside club" for fans, respectively. This marked the first time the presenting partner of the finals had their logo painted on the court for a finals series, a series that was viewed by an average of 7 million fans per game. For Michelob, this also meant that

they were the brand associated with bringing nearly 60,000 fans “into” the arenas across the remaining 88-game regular season and playoffs.

Nearly a month after the opening of the NBA bubble, and after witnessing some of the early success of said bubble, the NHL also implemented a similar strategy for the completion of their own season. Like the NBA, the NHL opted for a bubble atmosphere, and also opted for an extended playoff with only playoff teams rather than playing out the remainder of the season. Dissimilar from the NBA though, who brought everyone competing back to a singular hub in Orlando, the NHL had two hub cities- one in Toronto and one in Edmonton. Also unlike the NBA, who played their games at a non-NBA venue, the NHL used the complexes of the Toronto Maple Leafs and the Edmonton Oilers to play their games. This was both an advantage and a disadvantage relative to the NBA.

While the NBA had a blank slate with which to operate, they also had to pay extra for that right. The NHL on the other hand, while still having to pay for their bubbles, estimate that the total cost was between \$75 and \$90 million as opposed to the \$180 million paid by the NBA. Again, despite this fee being incredible, it was seen as an investment for the league. The main broadcasting partner of the NHL in the United States, NBC, had a contract that only ran for one more season after this one, and without completing the season, not only would the league have been forced to pay them back for the year, they also would have taken a massive pay cut on the next contract. Instead, after surprisingly high viewership on the first round of the playoffs, and relatively consistent viewership from then on, the NHL was able to go into those negotiations with some leverage.

To compare all the leagues initial responses, while safety was paramount, it was clear that playing out the seasons was also of the utmost of importance. From a health and financial security standpoint, the NBA’s and NHL’s investment in bubble’s was the most effective at ensuring that the games would go on, regardless of what transpired in society. The plan was to eliminate any worries about a star player getting infected and being ruled out, or a having a breakout that could threaten to derail a team for weeks on end, and after zero positive cases between them for the entirety of the endeavor it is fair to say that plan was successful. Additionally, this meant that they could market themselves to their sponsors and broadcasters as being impervious to the virus, which as has been discussed previously, was vital.

That said, instituting a bubble was an incredible investment, and one that was deemed either unfeasible or unnecessary for the Premier League and La Liga. While not being as successful in completely eliminating the threat of COVID, with a few positive cases each throughout the remainder of their respective seasons, not creating a bubble had a variety of advantages for the European Leagues. For one, it meant that teams would be playing in their own stadiums and living in their own homes. From a sponsorship standpoint, the emptiness of the large stadiums also meant that there was more room to display banners and other marketing tools. According to consulting firm Nielsen Sports out of the U.K., the value of this broadcasting space was between \$850,000 and \$2.4 million based on the coverage of the games and the viewership numbers of the games. In living in their own homes, players were also in a better space mentally than many of the players in the NBA and the NHL. It is impossible to quantify in a financial sense, although living in a hotel away from their families

and isolated from the rest of the world put a heavy mental strain on many players. NBA star LeBron James went so far as to say that winning the championship in the 2019/20 season was the toughest of his career due to the circumstances of the bubble, in large part due to that mental taxation. The mental strain, while still being there as a part of the COVID scenario, was not nearly as great on the European players, and its possible this led to them being more effective on the field. Without being able to quantify it, it can be said that viewers would rather watch players at full strength than at 90 percent, so this was an advantage for the European leagues.

By not having a bubble, the European leagues were also able to get up and running quicker than their American counterparts. The quick turnaround, and playing games in quick succession, meant that the Premier League and La Liga finished out their seasons completely, and with all their teams playing out all their games. Again, relative to the NBA and the NHL where only 22 and 24 teams, respectively, competed in the bubble, this would have meant that in a similar scenario five teams would have been sidelined from the Premier League and La Liga. As it has not yet been addressed, it should be noted that while the leagues have been discussed in their entirety throughout the paper thus far, it is not an even breakdown of total revenue between all the teams within the leagues, in fact far from it.

In the NBA, teams are known as either being from a small market, like those in Minneapolis or Oklahoma City, or from a large market, such as those in Los Angeles or New York. The difference in value and revenue can be large between them, but at the end of the day all NBA franchises are worth at least 1.3 billion dollars according to Forbes. There was not perfect parity across the league, but the average franchise was valued at \$2.4 billion, and most teams were in the \$1.3-\$2.5 billion range and a select few pushing into the \$3-\$5 billion range. The NHL average value is less, coming in at around \$600 million, and with a spread of franchise values between \$300 million and \$1.6 billion. These are not the revenue numbers, rather team valuations, but it still offers a picture of how the leagues breakdown in terms of financial parity. There is a discrepancy between top and bottom, although it pales in comparison to the valuations of teams in Europe.

In the Premier League, the most valuable team is worth around \$3.4 billion dollars, but the lowest is worth only \$133 million. The Premier League average team value is 995 million dollars, but outside of what is called the "Top 6", which are the most valuable teams in the country including the likes of Manchester United and Liverpool, the most valuable team is only worth \$619 million, and the average of the non- "Top 6" is only \$359 million. This goes to show the incredible discrepancy between the top and the bottom in the Premier League, and it is the same in Spain. The most valuable franchises in Spain are Real Madrid and Barcelona, both coming in as some of the most valuable soccer teams on Earth, in line with or exceeding the Top 6 in the Premier League, while the lowest rungs compare to those of the United Kingdom.

In showing the financial parity, or lack thereof among the teams in the United Kingdom and Spain, it is clear why they did not, or perhaps could not have used a bubble in the same way as the NHL and NBA. If the bottom five teams would have had to miss out on the end of the season, even if they were still a part of a revenue sharing scheme from the broadcasters, they still would have been crippled by an inability to play in a way the NBA and NHL teams

would not have been. Furthermore, the cost of the NBA bubble was worth more than an entire team in the Premier League, which puts into perspective the incredible difference in value.

One other note comes from the financials of promotion and relegation present in European soccer. Briefly, relegation means that the worst performing teams in the league each year are dropped down to the lower divisions, and the best teams from the “minor leagues” joins the top division. There is no real comparison for this practice in the United States, but essentially it means that instead of getting the first overall pick, the worst team in a league moves down to a lower professional tier, and the best team from that lower division moves up to replace them. Dropping out of the Premier League or La Liga costs teams millions in broadcasting money as well as other revenue, so the teams that were on the bottom of the leagues at the time would have extra incentive to restart the season, as it would give them a chance to escape the relegation zone. Had the leagues used a bubble in the way the NHL and NBA did, some of these clubs would have been automatically relegated, having no chance to play themselves back into safety. This likely would have prompted lawsuits brought against the leagues on behalf of the relegated clubs to play out their games anyway, which would have slowed down the restart even more.

The quick turnaround afforded by not needing to create a bubble was perhaps one of the biggest reasons why Premier League and La Liga deemed them unnecessary. With the plan in place for teams to play in their own stadiums, the leagues had no need to invest time getting all of them in one place and locking everything down, instead getting games going as quickly as possible once it was safe to do so. Always with an eye on the broadcasting deals, it is likely that the Premier League and La Liga felt it was more prudent to avoid broadcaster rebates on the next season as much as they could and focus on getting back on track for the next year.

Initial Analysis

Since most of the decisions made by the leagues were in the interest of protecting revenues, and not necessarily generating more, the definition of success across the first two phases of restarting play is blurry. First, it is possible to compare how the revenues of the leagues pre-COVID compared to those post-COVID, with the lowest drop in revenue dictating the “most successful” policies. The leagues had different remainders of their seasons, however, which should be considered. A more accurate way to compare the effectiveness of policies, therefore, is to use the percentage of the season remaining to estimate a theoretical maximum expected loss for each league and compare those with the actual estimated losses for the leagues. Even this is not so clear however, as it can be analyzed in a few ways.

In normal years, where there are no COVID concerns, sports leagues’ revenues tend grow without fail. Thus, it is possible to base a calculation off a “normal” year’s revenues to see how effectively the leagues were able to keep pace. To do this, first the pre-COVID, 2018/19 league revenues are multiplied by the revenue growth rate from the previous season, as this will simulate a normal year, one devoid of Coronavirus issues. This normal year revenue is then multiplied by the percentage of games remaining in the season relative to the total, giving a “theoretical maximum loss” for the league. Essentially, this maximum loss shows how much the

leagues could have plausibly made in a normal season, and inversely what they stood to lose after the pandemic hit.

The equation is crude, as it assumes that each game of the season accounts for the same amount of revenue, and it is using the last growth rate to simulate a pandemic-free revenue for the leagues, but it gives a comparative baseline for the leagues. Next, these theoretical losses are compared to the estimated actual losses for the league as they have been reported. By comparing the actual losses with the theoretical losses, the ratio of the two gives a glimpse of how successfully the leagues kept pace with revenue projections for the 2019/20 season. In essence, this ratio shows what percentage of revenue from the suspended year the leagues salvaged relative to a normal year. Consequently, it will be known as the salvage ratio.

From the pre-COVID section revenue section discussed previously, the revenues from the 2018/19 season for the four leagues were as follows: the NBA made an estimated \$8.76 billion, the NHL made \$5.09 billion, the Premier League made \$6.69 billion, and La Liga made \$3.85 billion. After accounting for the growth rates, the theoretical expected revenue for a season without a pandemic would be NBA: \$9.5 billion, NHL: \$5.33 billion, Premier League: \$7.19 billion, and La Liga: \$4.23 billion.

Given that the leagues stood to miss between 15% and 25% of their seasons, not including the playoffs for the American leagues, this means that at minimum the leagues would have been expected to lose hundreds of millions of dollars each had the seasons ended immediately. As far as exact numbers, the NBA could have missed out on a projected \$2.02 billion, the value of the 21% of their season left, the Premier League stood to miss out on around \$1.74 billion since they had 24% of the season remaining, La Liga could have lost \$1.22 Billion given the nearly 29% of their season left, and the NHL could have lost around \$790 million since they had the shortest remaining portion of the season. Potential lost playoff revenue is harder to estimate, as the games only account for between 4.5% and 7.8% of games depending on the length of the series, but it is also the time that brings in the most money from both ticket revenue and broadcasting in American sports. For the purposes of these calculations, despite not accounting for too many games played, the playoff revenue estimator is 15% of the total revenue in a given year, due to their importance to broadcasting and sponsorship. This means the NBA and NHL would have stood to lose an additional \$1.44 billion and \$799 million, respectively if they also missed out on the playoffs.

The math is crude, and leaves out a bit of information, but theoretically in a normal season, given the assumptions made, the portion of the season the leagues were suspending could have netted them between \$1.22 Billion in revenue on the low end for La Liga, up to \$3.45 billion for the NBA on the high end. The actual revenues for the leagues are not public information yet, but estimates are available. For the COVID interrupted 2019/20 season, it is estimated that the NBA made \$8.3 billion dollars in revenue, down \$1.27 billion from a non-pandemic year projection. The NHL made an estimated \$4.37 billion, which was \$960 million lower than the projected revenue. The Premier League, based off these assumptions, lost an estimated \$1.59 billion from the projection, bringing their revenue to only \$5.6 billion. Finally, La Liga made an estimated \$3.55 billion, losing \$680 million from a normal 2019/20 projection.

Getting to the salvaged revenue ratio, this means that the NBA did the best at preventing losses, salvaging 63% of a potential normal year's expected revenues from the remainder of their season. On the flip side, the Premier League salvaged only a miniscule 8.8% of a normal year's expected revenue from the remainder of the season. This conclusion is a bit misleading, as it would imply that even after implementing policies to complete the season, fulfilling broadcast and sponsorship contracts as well as possible, and playing an additional 92 games, they only salvaged revenue worth around \$150 million. This result seems to indicate that there is clearly something wrong with the math, but the answer is simple. According to Deloitte, Premier League clubs fill out their financial reports on either May 31 or June 30. Therefore, half of a rebate to the broadcasters worth an estimated 1 billion pounds (\$1.35 billion) that could be recouped as part of a deferred payment plan negotiated amid the season restart was not accounted for in the revenue estimation. If the Premier League's revenue is adjusted to include that deferred payment, the salvage ratio rises to 47.7%, equating to \$830 million salvaged.

An important caveat can be made here however, as from the onset of the pandemic the leagues already knew that the season would not be regular. This fact leads to the second way to measure success- basing the calculations on the 2018/19 revenues without the growth factor included. Even the most aggressive restarting plans in the wake of the pandemic still expected the seasons to be suspended for at least a few weeks, and therefore, including the growth rate in the calculation skews the data a bit. As was mentioned, the leagues were not planning to make additional money, with an expectation of losing millions from ticket sales alone as the virus continued spreading. As such, a more accurate salvage ratio should be based on the 2018/19 revenues instead of projecting a 5-9% increase then running the calculation.

By calculating everything based on the revenue from 2018/19, the results are much more reasonable for the leagues. The NBA retains the highest salvage ratio, salvaging nearly 86% of revenue expected from the remainder of their season, with the value of the salvaged revenue equaling \$1.59 billion from the new calculation. Impressively, this value is nearly in line with the NBA's own estimation of how much the bubble allowed them to save, which was \$1.5 billion. This means that this new calculation, based off the 2018/19 revenues, while not perfect, is a good means of comparison.

Based off the new calculations, and accounting for the Premier League broadcasting adjustment, all four of the leagues salvaged at least 53% of revenue, with that lowest spot going to the NHL. That said, this 53% still equates to over \$400 million dollars in revenue, so while not being as effective as the others, the NHL still did relatively well. Additionally, the cost of the NHL bubble, while an investment, did cost nearly \$100 million so it is likely that they made more than the \$400 million that was reported. Progressing to the European Leagues, the Premier League and La Liga, buoyed by the elimination of 7.5% and 9.8% respective growth rates, see their salvage ratios come out to 74.7% and 72.7%. These salvage ratios indicate the Premier League made \$1.21 Billion from the decision to continue after adjusting for the broadcast rebate, and La Liga netted \$810 million from their continuation policies.

For clarity, all calculations and data have been added to tables in the appendix to ensure understanding.

The results of these calculations offer a few interesting nuggets of information. First, given that they had very similar response policies, the Premier League and La Liga having similar salvage ratios is in line with what one might expect. It is surprising, therefore, that while the NBA and NHL both instituted bubbles, their salvage ratios differed by over 30%. Now, it is not overly surprising that the NHL ended up with the lowest salvage ratio, as the percentage of revenue from gate receipts was markedly higher for the NHL relative to the other leagues. To reiterate, the NHL, in a normal season, draws over a third of their revenue from gate receipts. The next highest percentage is the NBA, but even then, they get only 22% from tickets. Therefore, the NHL was destined to be hit harder by the behind-closed-doors mandate than the other leagues and were unable to make up the difference in the short-term given their relatively smaller television contracts. Like the Premier League however, by playing out the season, the NHL gave themselves leverage in the negotiation for a new T.V. contract, as the previous one was set to end after the COVID season.

Eyes to the Future

The analysis so far has been about the season directly interrupted by COVID; however, the pandemic is ongoing and thus still requires ongoing policies to address it. While not as critical as the decision to postpone and then restart the season, deciding how to progress into the future was still a point of concern for the leagues.

In a normal year, the soccer leagues are generally start their seasons before the NBA and NHL start theirs. A normal soccer season runs from mid-August through to late May, but since they were unable to finish the COVID season until July, games had to get pushed back. By not having a bubble, partially as a means of speeding up the restart, both the Premier League and La Liga intended to get back in action as quickly as possible. The decision to get up and running as quickly as possible was a good one, as just two months after the last season ended, the new one had begun. Similar to the COVID interrupted season, the 2020/21 season started with no fans. As such, the impetus was again to stress broadcasting and sponsorship, attempting to limit the losses from the pandemic to just the one season.

To get back in the good graces of the broadcasters, both the Premier League and La Liga scheduled their seasons to run from mid-September through to mid-May. To accomplish this, some games were to be played during the week to make up for the loss of the time on the front of the season. Just playing midweek games was not enough however, as to fit all the games in, a winter break that is customary for the leagues was scrapped. In eliminating the winter break players would be forced to play on limited rest, and this decision was another that was made with an eye to the pocketbook rather than the field. It meant that players were essentially playing from June 2020 until mid-May 2021 with only a month break. It also meant, though, that the seasons would finish well before the Olympics and early enough that the 2021/22 season would begin fully on time. Again, this was done to help the broadcasters, who were no doubt feeling that competition with the Olympics could be problematic for viewership and were keen to get back on a usual schedule for their contracts.

The television deals for the Premier League are generally signed in 3-year intervals, and the current contract is set to end in 2022. Even before the pandemic analysts thought that the

deals were already getting inflated and feared a drop off from the price paid by Sky TV and BT, and this fear got compounded by the pandemic. Overseas T.V. deals have been on the rise as interest in the league continues to grow, but after moving games out of primetime these overseas partners have been some of the biggest proponents of rebates. The league cannot afford to lose substantial chunks of revenue from the new T.V. deal, with 12 teams in the league relying on the revenue sharing from them to pay the bills, so they were willing to risk some injury to make sure they get back on track.

In Spain, La Liga had a similar policy of only signing 3-year contracts for television deals, but in the wake of the pandemic this policy was changed in an attempt to get longer-term commitments. The league has many different domestic and international deals, but as they come out of the COVID season they are working to expand even more. A key part of this endeavor is a negotiation with ESPN for the rights to broadcast games in the United States. Currently under contract with streaming service BeIn for these rights, La Liga is attempting to void this contract to in the wake of the pandemic. The Premier League has been the dominant international league in the U.S. for years, and according to insiders, executives in La Liga feel that BeIn has been limiting their growth in the country by way of just showing games on their select streaming service, as opposed to on network television. These negotiations with ESPN can therefore be seen as a way to expand and emerge in the American market to recoup some of their losses from the pandemic.

The negotiations with ESPN are ongoing as of the time of writing, but an early sign of success and rebounding for La Liga was evident only a days after the restart of their season. In an article posted in September, reporting service Reuters said that the league had already seen advertising revenue grow 20% from the COVID season, as companies responded the huge uptick in viewership during the shutdown. As such, despite it not completely counteracting the lack of fans in seats, it was a good sign for the league in the interim.

As for the NBA and NHL, their seasons both started later and finished later than the European Leagues. In fact, the bubbles of the NBA and NHL were barely underway when the Premier League and La Liga finished their restarted seasons. Normally finishing in June, the NBA did not complete their playoffs until October, and the NHL, who also would have finished in June normally, finished in late September. Similar to the European leagues, effort was made to start as quickly as possible, as both American leagues felt the pressure of the looming Olympics and start of the NFL season in the summer. To accommodate the time crunch, both American leagues were again forced to shorten their seasons, with the NBA planning for teams to play a 72-game regular season, down 10 from normal, and the NHL planning on playing only 56 games in the regular season, down 26 from normal.

The leagues did not plan on having many, if any, in-person fans for their seasons either, and revenue projections from January for the NHL stated that they were on track to lose out on an additional \$1 billion in the 2020/21 season relative to a normal year. To recover some of those losses, knowing that losing gate receipts was a foregone conclusion, the NHL implemented the most aggressive sponsorship changes of any of the leagues. For the first time, the NHL allowed helmet sponsors for their teams, much like the NBA's jersey sponsorship initiative from a few years ago. Second, the NHL sold naming rights for their divisions, with

Honda, Scotiabank, Discover, and Massmutual becoming named sponsors for the league. Finally, to claw back a bit more of the potential losses, the NHL also partnered with food delivery app SkipTheDishes. It is unknown how much these sponsorships are worth, but obviously the league felt that it was imperative to the success and the longevity of the league to sell-out in the short-term.

All these actions were taken by the NHL before the beginning of the season, but luckily for the NHL, their broadcasting contract with NBC expired during the 2021 season. The league had seen great viewership numbers even through the pandemic, and this leverage led to a deal being struck in early March where they agreed to a new 7-year broadcasting contract with ESPN worth an estimated \$400 million per year. If that estimation is correct, it would constitute a 100% increase over their prior \$200 million per year domestic contract with NBC, and it is possible that other partners also sign deals to collectively bring the new deal up to \$600 million per year. For the league that was hit the hardest by the initial shutdown and was expected to lose nearly a billion dollars before the season, this deal was a massive success.

For the NBA, despite finishing the previous season in the best position, their outlook on the future is perhaps the most precarious. The biggest decision made by the league, to start in December rather than on Martin Luther King Jr. day, was achieved, but unlike the NHL they have not had much success with additional branding and sponsorship deals. The shirt sponsorship deal, while effective, cannot be seen as an addition to revenues like the helmet initiative in the NHL, as it was in place pre-pandemic. Additionally, while the broadcasting deals are huge for the NBA, the contracts do not expire until 2024/25, and therefore the league cannot expect broadcasting gains to buoy the lack of gate receipts for the upcoming season. So, while the NBA has done everything it can, including continuing the playoff play-in tournament, an addition from the bubble that was widely touted as a success, there is not a lot of room for the NBA to make up the potential losses from gate receipts. As a result, the NBA has been on the forefront of reopening their stadiums, with many teams letting in up to 4,000 fans. Letting in fans, at the end of the day, is not a decision the league can make on its own. States have their own policies for health mandates, and as such some teams have up to 30% stadium capacity while others have zero. This is not a great sign for the league, but there are not many more avenues for the league to recoup losses other than waiting out the virus.

Overall Success

The COVID pandemic was a catastrophic financial hit for all industries around the world, and the NBA, NHL, Premier League, and La Liga felt that hit just like everyone else. Their responses in the immediate aftermath of the outbreak were varied, but each league was able to finish out the postponed season, as well as starting a new one. This should be viewed as a success in itself; however, the goal of this paper was to find if there was a single league strategy that was more successful than the rest, emphasizing the long-term over the short-term. The answer is not cut and dry, but it does seem, at least in terms of this long-term security, that the best way to handle the pandemic was to approach it with agility, with the goal of restarting as quickly as possible- the way the European leagues did.

While the bubble of the NBA was the most effective policy for retaining revenue in the postponed season, the NBA stands to lose the most from this new season. The combination of the time it took to set up the bubble and the number of games remaining in the regular season and playoffs meant that both the NHL and NBA were in positions of shortening their next season to avoid running into broadcast competition in the summer. The European leagues did not have the same issue. The European leagues, in turn, were able to play out the entirety of their postponed seasons as well as allowing them to play a full slate of games in 2020/21.

Diluting financial success down to the actions of the league alone does not tell the whole story though. Despite having a bleaker outlook on the next season or two, the NBA and NHL are not in a position where they could have done much more to help themselves. This paper has looked primarily at the actions taken by the leagues themselves, but the countries' policies in response to COVID also have bearing on the leagues ability to make money. The United States has had by far the most instances of the Coronavirus throughout most of the pandemic, and despite shutting down in March, were still gaining an average of around 20,000 cases per day by June 2020. The European countries had a better initial shutdown and were therefore not dealing with the same number of cases as the in the United States. This is not a condemnation of the U.S., nor is it saying that the Europeans handled the situation perfectly, but the case totals did have an impact on how the leagues were able to respond.

Certain revenue streams, though, specifically gate receipts, are tied to the ability of the countries to get the pandemic under control. The longer it takes to reign in the virus, the longer it will be before arenas can be safely opened, especially given that the NBA and NHL play games indoors. Combining the relative reliance on gate receipts that the NBA and NHL have, if all else was equal in terms of broadcasting revenue and sponsorships, the NBA and NHL would still be worse off than the Premier League and La Liga as long as games are played behind-closed-doors.

It is possible however, to do one final calculation where the gate receipts are netted out and one final salvage ratio is revealed from the initial suspended season. Given the state of the world, there was no way that people were going to be in seats during the restarts, so by eliminating these expected gate receipts from the calculation, the results offer a clearer picture of how well the leagues responded given what they could control and gives one last comparative baseline for the leagues. To calculate this last ratio, there were a few steps. First 2018/19 total revenues were multiplied by the percentage of that revenue that came from gate receipts. Next, this product was multiplied by the percentage of the season left. The resulting product represented the gate receipt revenue that was expected to be lost in the regular season. For the American leagues the playoffs also had a multiplier that accounted for them. After finding the total revenue expected from gate receipts for the remainder of the season, this number was added back to the actual reported revenues. This calculation left a revenue that had gate receipts built in, allowing the calculation of one final salvage ratio.

The biggest "winner" after netting out the gate receipts is the NHL. Any league that loses a revenue stream that makes up more than a third of their total would be adversely represented in the first two calculations, but by netting out a factor leagues were unable to control, all the leagues are finally on a level playing field. The NBA still had the highest salvage

ratio, which was 107.25%. This means that after netting out the foregone loss of gate receipts, the league actually made more money from other sources than they would have expected to in a normal season. The NHL had the second highest salvage ratio after adjusting for gate receipts, at 89.49%. La Liga and the Premier League were the final two respectively, although they were quite close to the NHL's number. The results were an 88.12% salvage ratio for La Liga and 87.98% for the Premier League.

Now, this last calculation is specific to the restarted season, but it can also project into the future in saying that any analysis based on a lack of people in the stands will relatively disadvantage the American leagues. A quick calculation for the new season reveals that losing out on gate receipts for an entire year would "cost" the NBA around \$1.93 billion dollars in lost revenue, and \$1.86 billion for the NHL, versus only \$887 million and \$596 billion lost for the Premier League and La Liga respectively. Therefore, even if they were to make hundreds of millions of dollars more than the soccer leagues from different revenue streams, the NBA and NHL would still be relatively worse off than the European counterparts in the new season. All of this is to say that while the Premier League and La Liga have a better outlook on the future, the NBA was still the most successful in terms of policies they could control, and the NHL as well, while being the least effective given their revenue breakdown, was actual the second most effective when everything is compared on a level playing field.

In conclusion, perhaps it was too much to assume that any one league would be able to weather the pandemic in its entirety substantially better than the rest simply through their response policies. The pandemic is ever changing, and it is possible that as vaccines continue to roll out, and national and state regulations continue to loosen, that the NBA and NHL's outlook can change by getting fans in seats by the playoffs. Further, through different calculations, a case could be made that all the leagues have a claim to a serious level of personal success. As the situation stands currently though, the combination of all the policies indicates that the Premier League and La Liga have the best financial outlook the future. One thing that can be said for certain is that none of the leagues are in completely dire straits, and once the countries begin to open up, they all expect to get back to their normal revenue growth. For now, though, the leagues are in a bit of a limbo, just waiting for when that sense of normalcy returns.

Works Cited

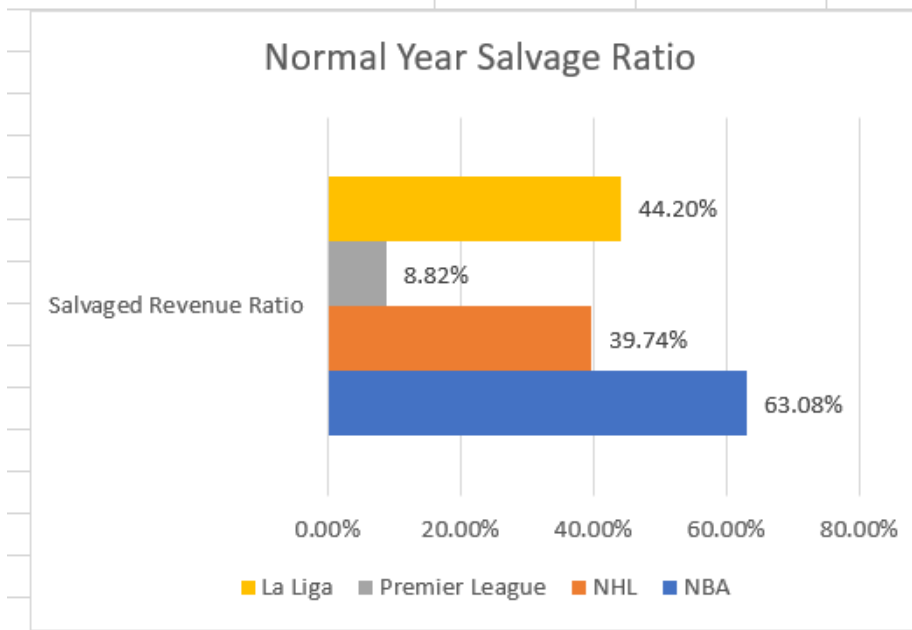
- Adams, Luke. "Forbes Releases 2020 NBA Franchise Valuations." *Hoops Rumors*, 11 Feb. 2020, www.hoopsrumors.com/2020/02/forbes-releases-2020-nba-franchise-valuations.html.
- Baron. "Premier League Club Values 2020." *Price of Football*, 29 Apr. 2020, priceoffootball.com/2728-2/.
- Beer, Tommy. "Report: NBA's Bubble Prevented \$1.5 Billion In Losses." *Forbes*, Forbes Magazine, 20 Oct. 2020, www.forbes.com/sites/tommybeer/2020/10/20/report-nbas-bubble-prevented-15-billion-in-losses/?sh=3f14228b3823.
- Carp, Sam. "Nielsen Study: Premier League Closed Games Worth up to UK£2m to Sponsors." *SportsPro*, 23 June 2020, www.sportspromedia.com/news/premier-league-sponsorship-value-stadium-wraps-behind-closed-doors.
- Dowbiggin, Bruce. "Sportsnet Can't Dig out of Hole Created by NHL Contract." *Troy Media*, 5 Oct. 2020, troymedia.com/sports/sportsnet-dig-hole-nhl-contract/#.YFEKzp1KhPY.
- Garcia-Garcia, Borja, et al. "The Impact of Covid-19 on Sports: a Mid-Way Assessment." *The International Sports Law Journal*, Springer International Publishing, 23 July 2020, link.springer.com/article/10.1007/s40318-020-00174-8.
- Gazapo, Carlos. "TV Rights in Football - Premier League Analysis." *Sports Business Institute*, Sports Business Institute Barcelona, 2019, www.sbibarcelona.com/newsdetails/index/403.
- Gough, Christina. "NBA Sponsorship Revenue 2010-2020." *Statista*, 9 Mar. 2021, www.statista.com/statistics/380270/nba-sponsorship-revenue/.
- Gough, Christina. "Total NBA Revenue 2001-2018." *Statista*, 17 Feb. 2021, www.statista.com/statistics/193467/total-league-revenue-of-the-nba-since-2005/.
- Holroyd, Caitlyn. "Rangers Top Forbes' List of Most Valuable NHL Teams." *TheScore.com*, Mar. 2020, www.thescore.com/nhl/news/1905303.
- Jones, Dan. "Annual review of football finance 2020": *Deloitte UK*. June 2020
<https://www2.deloitte.com/uk/en/pages/sports-business-group/articles/annual-review-of-football-finance.html>
- Kemp, Jake. "The Business of the NBA & Impact of COVID-19." *Sportcal*, 25 June 2020, www.sportcal.com/Insight/Features/132842.
- Lange, David. "'Big Five' European Football Leagues Revenue 1996-2021." *Statista*, 26 Nov. 2020, www.statista.com/statistics/261218/big-five-european-soccer-leagues-revenue/.

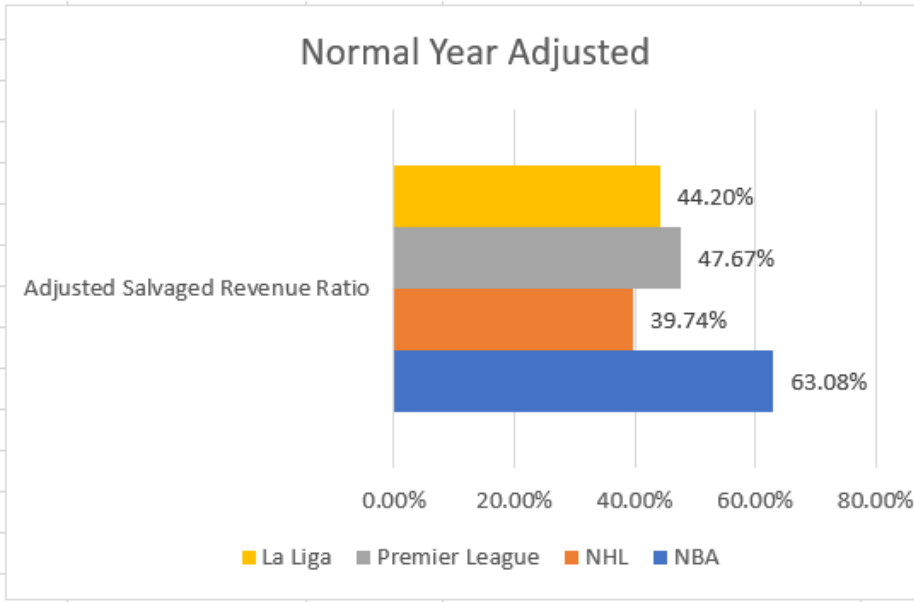
- Maguire, Kieran. "Covid-19 and Football: Crisis Creates Opportunity." *Wiley Online Library*, John Wiley & Sons, Ltd, 3 Feb. 2021, onlinelibrary.wiley.com/doi/full/10.1111/1467-923X.12961.
- Marsden, Sam. "Coronavirus Crisis: La Liga Suspended Indefinitely." *ESPN*, ESPN Internet Ventures, 23 Mar. 2020, www.espn.com/soccer/spanish-primera-division/story/4077753/coronavirus-crisis-la-liga-suspended-indefinitely-.
- NHL.com. "NHL Announces Return to Play Plan." *NHL.com*, NHL.com, 26 May 2020, www.nhl.com/news/nhl-announces-return-to-play-plan/c-317031134.
- Prince-Wright, Joe. "Premier League Urge Clubs, Players to Follow Stricter COVID-19 Protocols." *ProSoccerTalk / NBC Sports*, 14 Jan. 2021, soccer.nbcsports.com/2021/01/14/premier-league-statement-on-enhanced-covid-19-protocols/.
- Reiff, Nathan. "How The NBA Makes Money: The Second-Largest Sport in the Country." *Investopedia*, Investopedia, 9 Nov. 2020, www.investopedia.com/articles/personal-finance/071415/how-nba-makes-money.asp.
- Sartori, Andrea. "The European Elite 2020. Football Club's Valuation." *KPMG Football Benchmark*, KPMG, May 2020, footballbenchmark.com/documents/files/KPMG%20The%20European%20Elite%202020_Online%20version_.pdf.
- Sartori, Andrea. "The European Elite 2019. Football Club's Valuation." *KPMG Football Benchmark*, KPMG, May 2019, www.footballbenchmark.com/documents/files/public/KPMG%20Football%20Benchmark_Football%20Clubs%20Valuation%20report_2019_WEB.pdf.
- Shelburne, Ramona, et al. "Everything That Happened in the NBA Bubble." *ESPN*, ESPN Internet Ventures, 8 Oct. 2020, www.espn.com/nba/story/_/id/30055011/everything-happened-nba-bubble.
- Wray, Izzy, et al. "Annual Review of Football Finance 2019." *Deloitte UK*, 18 July 2019, www2.deloitte.com/tr/en/pages/consumer-business/articles/deloitte-uk-annual-review-of-football-finance-2019.html.

Appendix

Pre-Covid Data (2018/19) Season	NBA	NHL	Premier League	La Liga
Pre-Covid Revenue (2018/19) in Billions of Dollars	\$8.76	\$5.09	\$6.69	\$3.86
Games stood to miss at time of season stoppage	259	189	92	110
Total Number of Games In season	1230.00	1271.00	380.00	380.00
Percentage of Games Remaining	21.06%	14.87%	24.21%	28.95%
Number of Games in Playoffs Low	60	60		
Number of Games in Playoffs High	105	105		
Percentage relative to regular season low	4.65%	4.51%		
Percentage relative to regular season High	7.87%	7.63%		

Data Comparison- Growth Rate Adjusted	NBA	NHL	Premier League	La Liga
Pre-Covid Revenue (2018/19) in Billions of Dollars	\$8.76	\$5.09	\$6.69	\$3.85
2018/19 Revenue Growth Rate	9.30%	4.70%	7.50%	9.83%
"Normal Year" Expected Revenue (2019/20)	\$9.57	\$5.33	\$7.19	\$4.23
Percentage of Season Left at Stoppage	21.06%	14.87%	24.21%	28.95%
Theoretical Value of Remaining Regular Season	\$2.02	\$0.79	\$1.74	\$1.22
Percentage of Revenue From Playoffs	15%	15%	0%	0%
Theoretical Playoff Value	\$1.44	\$0.80	\$0.00	\$0.00
Theoretical Total Value from Remainder of Season	\$3.45	\$1.59	\$1.74	\$1.22
Post-Covid Actual Revenue (2019/20)	8.3	4.37	5.60	3.55
Difference from Normal Year	(\$1.27)	(\$0.96)	(\$1.59)	(\$0.68)
Salvaged Revenue Ratio	63.08%	39.74%	8.82%	44.20%
Deferred Revenue from Broadcasters			0.67645	
Adjusted Difference From Normal Year including recuperation			(\$0.91)	
Adjusted Salvaged Revenue Ratio	63.08%	39.74%	47.67%	44.20%

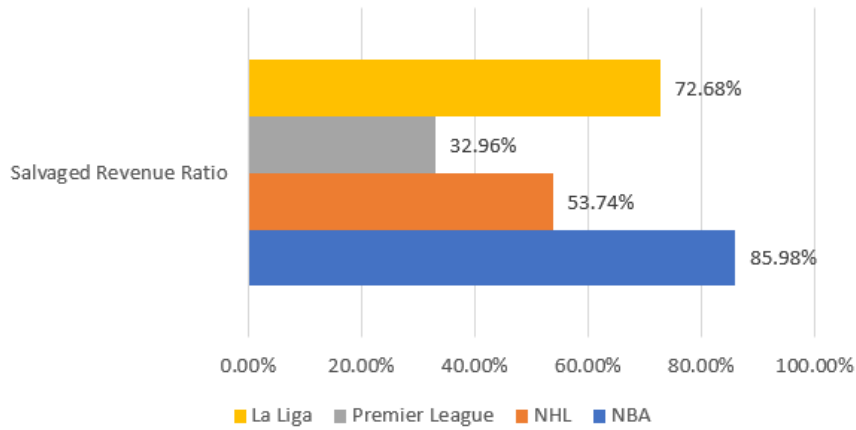




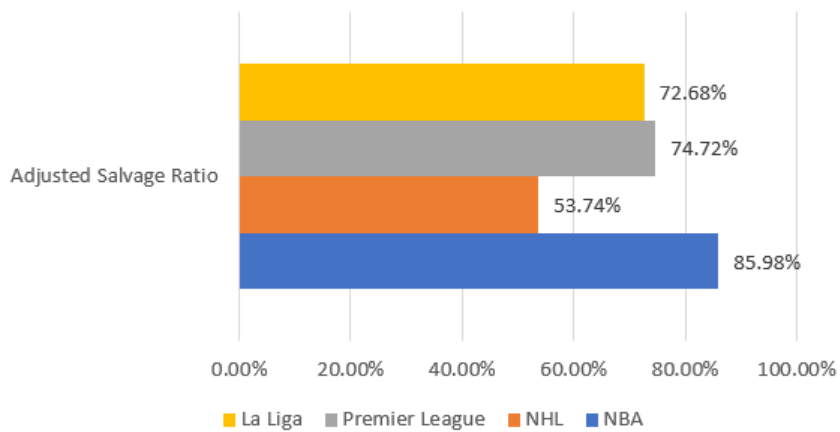
Value of Salvage Growth Rate Adjusted	NBA	NHL	Premier League	La Liga
Percentage of Season Already Played	78.94%	85.13%	75.79%	71.05%
Value of Season Already Played in Billions	\$7.56	\$4.54	\$5.45	\$3.00
Value of Salvage	\$1.27	\$0.31	\$0.15	\$0.54
Value of Salvage Adjusted	\$1.27	\$0.31	\$0.83	\$0.54

Data Comparison- Based on 2018/19 Revenue	NBA	NHL	Premier League	La Liga
Pre-Covid Revenue (2018/19) in Billions of Dollars	\$8.76	\$5.09	\$6.69	\$3.85
Percentage of Season Left at Stoppage	21.06%	14.87%	24.21%	28.95%
Percentage of Revenue From Playoffs	15%	15%	0%	0%
Theoretical Regular Season Revenue Value	\$1.84	\$0.76	\$1.62	\$1.11
Theoretical Playoff Revenue Value	\$1.44	\$0.7994	0.00	0.00
Theoretical Total Value of Remaining Season	\$3.28	\$1.56	\$1.62	\$1.11
Post-Covid Actual Revenue (2019/20)	8.3	4.37	5.60	3.55
Theoretical Loss from 2018/19	(\$0.46)	(\$0.72)	(\$1.09)	(\$0.30)
Salvaged Revenue Ratio	85.98%	53.74%	32.96%	72.68%
Premier League Revenue Adjustment			0.67645	
Adjusted Difference			(\$0.41)	
Adjusted Salvage Ratio	85.98%	53.74%	74.72%	72.68%

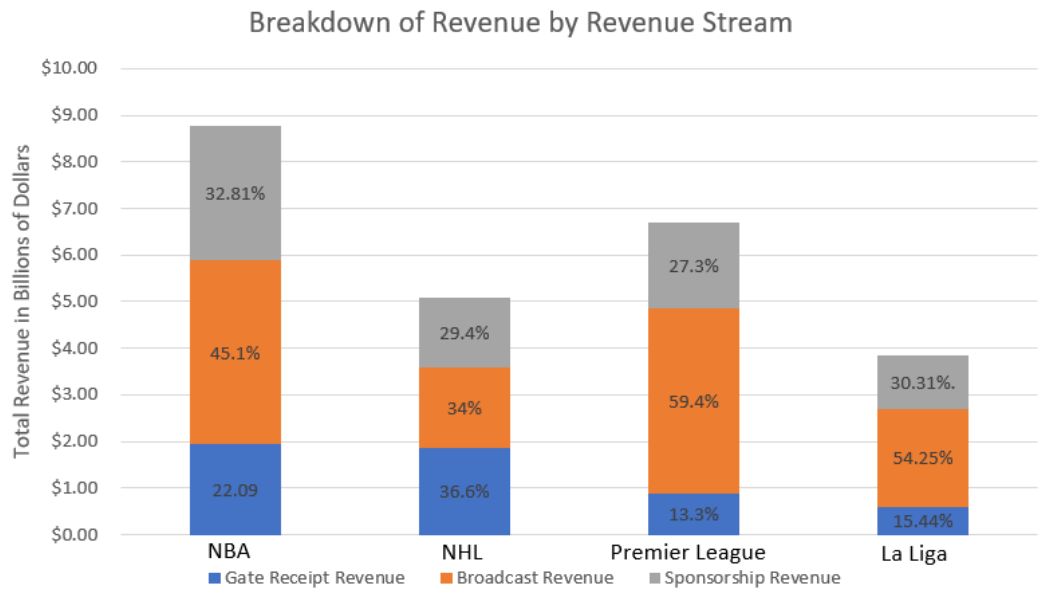
2018/19 Salvage Ratio



2018/19 Adjusted



Value of Salvage-2018/19	NBA	NHL	Prem	La Liga
Percentage of Season Already Played	78.94%	85.13%	75.79%	71.05%
Value of Season Already Played in Billions	\$6.92	\$4.33	\$5.07	\$2.74
Value of Salvage Adjusted	\$1.59	\$0.41	\$1.21	\$0.81



Pre-Covid Data (2018/19) Season	NBA	NHL	Premier League	La Liga
Pre-Covid Revenue (2018/19) in Billions of Dollars	\$8.76	\$5.09	\$6.69	\$3.86
Percentage of Revenue as Gate Receipts	22.09%	36.60%	13%	15%
Percentage of Revenue as Broadcasting Deal	45.10%	34%	59%	54%
Percentage of Revenue as Sponsorship and Merchandising Deals	32.81%	29.40%	27.30%	30.31%

Gate Receipt Losses	NBA	NHL	Premier League	La Liga
2018/19 Revenue in Billions of Dollars	\$8.76	\$5.09	\$6.69	\$3.85
Percentage of Revenue from Gate Receipts	22.09%	36.60%	13.26%	15.44%
Percentage of Season Left	21.06%	14.87%	24.21%	28.95%
Lost Regular Season Gate Receipt Revenue	\$0.41	\$0.28	\$0.21	\$0.17
Playoff Ticket Revenue	\$0.29	\$0.28	-	-
Total Lost Gate Receipt Revenue	\$0.70	\$0.56	\$0.21	\$0.17
Theoretical Total Gains/Losses Netting out Gate Receipts	\$0.24	(\$0.16)	(\$0.19)	(\$0.13)
Salvage Ratio Adjusted for Gate Receipts	107.25%	89.49%	87.98%	88.12%

2018/19 Gate Receipt Adjusted

