



# TOO BIG TO GO DOWN?

A study comparing the price inflation of Premier League football players with the characteristics of economic bubbles.

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## Too Big to Go Down? Martin Tierney

*The prices paid for footballers has increased significantly since the English Premier League began in 1992. This paper aims to test whether the money involved in transferring a player into a Premier League club is not justified by normal economic forces and instead has some of the same characteristics often seen in economic bubbles. While this idea has been put forward in journalism, it has yet to be proven in academic writing. A thorough literature review provides an explanation of the characteristics derived from several different sources. These are;*

- *A hyperbolic rise in the price of the commodity.*

*Accompanied by one or more of the following*

- *A higher volume of trading.*
- *Irrational traders.*
- *A positive feedback mechanism helping to drive up the price.*

*Based on the above, four well defined tests are identified to see if each characteristic is present in the market;*

- *For the price increase, Premier League club's spending is compared over time against other comparative leagues.*
- *To check if there is a higher volume of trading, the quantity of players transferred in and out of Premier League clubs is presented.*
- *Testing to see if clubs are irrational traders relied on the vast experience of the qualitative sources.*
- *For the final test, TV broadcasting revenue is proposed as the positive feedback mechanism driving up the price of transfers. This is tested using correlation and supported by the views of the qualitative sources.*

*The findings are firstly that a price increase is clear, most strikingly from 2012 on. Secondly, there was no evidence of a higher volume of trading among Premier League clubs. Thirdly, it was established that while clubs may want to be rational traders, a combination of outside influences; namely supporters, agents and managers lead them to act irrationally. Finally, it is found that money received for TV broadcasting rights has a positive correlation with the increase in transfer fees and therefore could be seen to be the feedback mechanism that is helping to drive up the price. The discussion centres on how the rise in broadcasting rights and transfer fees has increased the economic disparity between the big clubs and the rest of the league. Finally, the conclusion of this research declares that with three out of the four characteristics present, it can be said that the transfer market for Premier League footballers has some of the characteristics seen in economic bubbles.*

# Submission of Thesis and Dissertation

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## Chapter 1: Introduction

The Premier League is an annual soccer competition involving the 20 best English club teams. It was formed in 1992, when the first division clubs in England agreed to form a breakaway from the Football League in an attempt to gain greater broadcasting revenue for themselves (Geey, 2019). It has since developed into the first truly global league in football's history (Kuper & Szymanski, 2012) and has been described as "*the wildest, richest, most disruptive force in sport*" (Robinson & Clegg, 2018).

When a football player moves from one club to another, a fee is exchanged which represents the buying clubs right to exclusively register that player to play for them (Maguire, 2020). Just before the inaugural Premier League season was due to start, Tottenham Hotspur sold one of the league's best footballers, Paul Gascoigne to an Italian club Lazio for a then British transfer record of £5.5 million (Law, 2019). According to the Bank of England inflation calculator, this amount adjusted to inflation would be worth just under £11.2 million in 2018. Yet, during 2018, Liverpool sold Philippe Coutinho to the Spanish club Barcelona for a new British transfer record, £105 million (Lane, 2019). So, the price of Premier League players is clearly rising at a much greater rate than normal inflation. If it was to continue to ascend in this way, in a further 26 years, a football player would be exchanged for just under £2 billion. The question then arises, is this trajectory feasible or is the market for Premier League footballers an economic bubble?

Traditionally, there has been comparatively less research done around sport. At the end of the 1980s, it was estimated that only thirty academic articles about sport had ever been written (Kuper & Szymanski, 2012). Previous academic analysis concerning the transferring of sports players from one organisation to another is especially limited. One of the reasons why this might be the case is that in American sports, where there is a relatively greater depth of academic research, the transferring of athletes for monetary value is not as common place (Dobson & Gerrard, 1999). Within the media landscape, opinion pieces suggest that the

increase in transfer fees may be indicative of an economic bubble (Smith, 2019). The aim of this paper is to bring some academic rigor to that idea.

A bubble occurs through false impressions, which can cause assets to seem more valuable than they really are (Barlevy, 2007). They are not uncommon in society, occurring in a range of different markets on a semi-regular basis. The first recorded one was almost four hundred years ago in the Netherlands, when values that today are estimated to be worth over \$100 million were invested in tulips (Moore, et al., 2017). Some tulips were reportedly traded for over 5 times the cost of an average house at the time before the price dramatically collapsed (Thompson, 2007). Since then bubbles have occurred frequently throughout history in commodities as varied as railway shares in the 19<sup>th</sup> century (Campbell, et al., 2012), internet related companies in the 20<sup>th</sup> century (Morris & Alam, 2012), and crypto currencies in the 21<sup>st</sup> century (Fry & Cheah, 2016).

Despite their long history, bubbles are still often the subject of discussion, debate and disagreement. Some economists still deny that bubbles even occur (Garber, 2001). As will be evidenced in the literature review, academia has struggled to form a consensus on the characteristics. This is because most economic models are designed to ensure the existence of an equilibrium. In contrast, bubbles are the result of subtle forms of interaction and organisation within a system which are much more difficult to document (Sornette & Cauwels, 2014). This being said, even the more recent financial crises, often involving complex financial instruments, bear similar hallmarks to the rise in price of a simple flower 400 years earlier (Moore, et al., 2017). To progress this research, a thorough literature review was conducted to establish some of these common characteristics.

To clearly state the research problem, this paper investigates the rising prices in the transfer market for Premier League footballers. The hypothesis put forward is that the market has the characteristics of an economic bubble. The literature review following this section synthesizes the different components of an economic bubble into the below definition;

*An increase in price that seems unlikely to reflect the true real value of an asset (Barlevy, 2007), accompanied by one or more of the following*

- *Higher volume trading than before (Phillips & Yu, 2011).*
- *Irrational market players (Milgrom & Stokey, 1982).*
- *A clearly identifiable positive feedback mechanism (Sornette & Cauwels, 2014).*

The literature review also includes a detailed analysis of the discussion to date about the football industry, the Premier League and the transfer market. Following that, and drawing on the above definition, the research question and sub-sections are clearly stated. The methodology to address this question is then presented. In order to test for a hyperbolic increase in prices, the money spent by Premier League clubs on players is compared against four other European leagues. There is then an investigation into the amount of transfers made by Premier League clubs who have never been relegated, to test if there has been a higher volume of trading over time. Qualitative sources are consulted to evidence if Premier League clubs are rational or irrational traders. Finally, a hypothesis was derived from the literature review that TV broadcasting revenue is a positive feedback mechanism helping to drive up the price. This is explored by testing for correlation in the value of the broadcasting deals and the price of transfers over time. Following this, there is a discussion on the findings, particularly what they mean with regards to the future of the Premier League.

## Chapter 2: Literature Review

This literature review is broken into three separate parts. The first section discusses the existing literature on asset bubbles. The aim of this is to derive a working definition of the characteristics of a bubble. A similar approach is found in the “*Why do Bubbles Still Occur*” section in *Can speculative bubbles be managed? An institutional approach* (Abolafia, 2010). However, those characteristics were derived solely from the back-to-back bubbles which occurred in the United States from 1990-2010 and thus would not give a satisfactory picture on why bubbles occur in other countries and industries.

Secondly, there is an analysis on the writing regarding the football industry from an economic viewpoint. Since this paper is focused on the Premier League, there will be a further focus on that competition and its clubs. It is impossible to tell the story of the Premier League without referencing TV broadcasting revenue (Robinson & Clegg, 2018), so there is also a detailed discussion on this.

Following that, there is a review of the transfer market for players. This includes a focus in trying to identify how clubs try to value footballers. Finally, there is a discussion on some of the regulations brought in by the relevant authorities to attempt to monitor this market.

### 2.1 Asset Prices, Fundamental Values and Bubbles

As mentioned in the introduction, there is some disagreement over whether asset bubbles even exist (Garber, 2001). *Efficient Market Hypothesis* was a renowned theory which stated that markets perfectly reflected the information about an asset and the market as a whole (Samuelson, 1965). If this model reflected reality, Philippe Coutinho would be worth £105 million simply by Barcelona paying that much for him. Clearly this cannot be the case or otherwise the various economic shocks throughout history could not have occurred. While this may seem obvious, market fundamentalism was still one of the main contributors to the successive financial crises in the US in the 1990s and 2000s (Abolafia, 2010)

Overtime, the limitations of this approach were exposed by research that identified the inefficiency of markets. The most profound challenge came from

*Bounded Rationality Theory* which identifies the shortcoming of human beings' decision-making due to limited time, information and cognitive abilities (Lakos & Szendrei, 2017). George Akerlof developed this by arguing that a buyer's utility function is affected by needing to "*fit in*" and not be an outsider, as much as it is wanting a good. (Akerlof, 2010). The understanding that due to human behaviour, price may not always reflect the fundamental value of the asset is the first step towards identifying a bubble.

It is now generally accepted that prices tend to move away from their fundamental values (Barlevy, 2007). The absence of this "*strong anchor*" provides a fertile environment for the occurrence of bubbles (Sornette & Cauwels, 2014). The main issue in trying to derive strategies to compensate for this, is that it is not always possible to find the "*intrinsic value*" of an asset (Barlevy, 2007). Sornette and Cauwels compare this challenge to driving in the dark while looking backwards due to the fact that even in the most efficient markets, most estimates are based on historical data (Sornette & Cauwels, 2014).

Perhaps the seminal work on bubbles is Charles P. Kindleberger's model which purports that there are five different stages to a bubble; Substitution, Take-off, Exuberance, Critical Stage and finally The Crash (Kindleberger & Aliber, 2011). While this analysis is both interesting and informative, it does not offer what the characteristics of a bubble are, which this paper is aiming to find.

Krugman notes that the series of economic bubbles can't simply be an accident and must have common components. However his analysis that bubbles simply occur when too much liquidity is chasing too few investment opportunities (Krugman, 2015) is quite primitive and does not take into account a number of other factors which can cause bubbles. Likewise, *The Greater Fool Theory* where quite simply one person will buy an overpriced asset with the view of selling it for an even higher price to the next person (Abreu & Brunnermeier, 2003) is not utilised as it is, to date, unproven in academic writing.

There is agreement in most literature that a bubble occurs when the price of an asset accelerates (Tirole, 1985). However, a sudden escalation in price alone does not necessarily mean a bubble is present. Barlevy considers how a product that is

suddenly in fashion, would quickly see an increase in demand which would push up the price, but still obey the law of demand and supply in equilibrium (Barlevy, 2007). Instead, there must be an increase in price which is not justified economically because it is following a “*hyperbolic power law trajectory*” (Sornette & Cauwels, 2014). This means that the increase of the price must also be so rapid, that it seems unlikely to reflect real changes in the true value of the underlying asset (Barlevy, 2007).

Due to the fact that an increase in price alone is not significant enough to detect an asset bubble, it is important to look for other signals. Phillips and Yu identify high volume trading corresponding with the price rising as a detection sign (Phillips & Yu, 2011). This endorses the work on momentum strategies which state that investors tend to over react and trade more on returns that have risen in the short-term (Jegadeesh & Titman, 2001). Higher volume trading was evident as far back as the 17<sup>th</sup> Century where the right to buy certain tulip bulbs was said to have changed hands up to ten times a day (Thompson, 2007). It was also seen as one of the key causes of the dot com bubble (Scheinkman & Xiong, 2003). Therefore, in order to test if a bubble is present, it could perhaps be expected that there would be higher volume of trading of Premier League players.

Robert Shiller commented on how unreasonable market players are usually the main causes of stock market booms (Shiller, 2000). Famously, then Federal Reserve chairman Alan Greenspan used the phrase “*irrational exuberance*” to describe the behaviour of the market players during the dot-com bubble (Morris & Alam, 2012). In fact, in the story of almost every bubble you can see the fallacy of human behaviour interfering with markets. For example, in the Irish housing bubble, participants ignored numerous warning signs and remained investing right up to the crash (Honohan, 2010). Milgram and Stokey found that speculative trading cannot occur in situations where market players are rational and profit-maximising (Milgrom & Stokey, 1982). By reversing this, it can be concluded that bubbles can only occur where the market participants are irrational and not profit maximising.

Sornette and Cauwels identify positive feedback as “*key ingredient*” in the formation of a bubble (Sornette & Cauwels, 2014). Undoubtedly the seminal work on this was done by Fisher Black when he described how “*noise*” such as imitation and herd behaviour is indicative of market inefficiency (Black, 1986). These behaviours may well be familiar to Irish readers as they were cited by the Governor of the Central Bank as some of the key causes of the Irish banking crisis, which led to the formation of a housing bubble in the late 2000s (Honohan, 2010). Aggressive positive feedback by financial analysts was also referenced as one of the causes of the Dot Com bubble (Morris & Alam, 2012). Section 2.2 of the literature review attempts to form a hypothesis on what may be providing positive feedback for the Premier League transfer market.

Synthesizing the above, the characteristics of a bubble are;

*An increase in price that seems unlikely to reflect the true real value of an asset (Barlevy, 2007), possibly accompanied by one or more of the following*

- *Higher volume of trading (Phillips & Yu, 2011)*
- *Irrational market participants (Milgrom & Stokey, 1982)*
- *A clearly identifiable positive feedback mechanism (Sornette & Cauwels, 2014).*

Of course, this is not an exhaustive list of all the characteristics that can occur. As mentioned, because bubbles are the result of subtle forms of interactions within a system, any number of components could be involved in causing them. It must also be remembered that the characteristics need to apply to the transfer market of footballers. For example, notable research shows how restrictions on short selling can influence a bubble (Haruvy & Noussair, 2006). But this type of trading is not common within the transfer market for Premier League players so would not contribute anything to the definition. What the above characteristics have in common is they were referenced in seminal work, were some of the key ingredients in some of the more ignominious bubbles in history and could be applicable to the transfer market for Premier League footballers.



The above definition is used going forward in this paper, when discussing the term bubble. In order to apply these components to the market for Premier League footballers, it is important to also understand the football industry and the Premier League. The following two sections aim to help with this.

## 2.2 The Football Industry, The Premier League and TV Revenue

Before beginning to analyse the transfer market, it is important to look at a football club from an economic standpoint. Although often owned by rich and foreign businessman, a football club is essentially a community asset (Maguire, 2020). Traditionally, they have not been run to make a profit (Georgievski & Zeger, 2016). Sloane provides perhaps the most pertinent account by saying the purpose of a football club is to achieve success while remaining solvent (Sloane, 1997). Kesenne agrees that clubs are “*win maximizers*” in that all available resources are put towards winning matches (Kesenne, 1996).

Only in the latter part of football’s long history did it occur to anyone that a football club should be run like a business (Robinson & Clegg, 2018). Football since has been described as “*creaking into professionalism off the pitch*” (Kuper & Szymanski, 2012). There is a clear tension between clubs doing this without being accused of selling out on what should be a community asset. For example, despite tickets to Premier League games being inelastic and demand outreaching supply, most Premier League clubs have not raised tickets prices recently due to fear of fans protests (Maguire, 2020). Kuper and Szymanski summarise this tension well by writing that football clubs unwisely compare themselves to huge businesses when really, they should be run like the British Museum;

*“Public-spirited organisations that aim to serve the community while remaining reasonably solvent”* (Kuper & Szymanski, 2012)

Research has shown that the more profit a club makes does not necessarily lead to better performance (Kuper & Szymanski, 2012). For example, when Leicester City pulled off what many have described as a “*football miracle*” by winning the Premier League in 2015/2016, the club made of profit of £20 million (Robinson & Clegg, 2018). A rational observer, perhaps even their accountant, may have been more pleased with their performance the following season as their profits

quadrupled (Maguire, 2020). They finished 12<sup>th</sup> in the league that season, which no one described as miracle.

The focus of this paper is on the Premier League. There is broad agreement in literature that the league is a huge success story. A succinct account of its history is provided in the book *“The Club”* which describes how from relatively humble beginnings in 1992, the league became the *“biggest multi-media entertainment event on planet earth”* (Robinson & Clegg, 2018). Interest in the league has been described as *“almost a human universal”* (Kuper & Szymanski, 2012). Geey writes that it is now most viewed football league on the planet (Geey, 2019).

Consultancy firm Deloitte produce an *Annual Report on Football Finance* (Deloitte, 2019) which includes the Premier League. However, the commentary did not inform this paper’s viewpoint. They are effusive in the praise of the industry and little or no critical analysis is shown in any sector. It should be noted that Deloitte advertise the *Deloitte Football Intelligence Tool* to club investors and board members within their report (Deloitte, 2017). This perhaps means that their appetite for rigorous critical analysis on this subject is limited.

When reviewing the Premier League, it quickly became apparent that there is a congenital link between the competition and TV. Sports TV broadcasting has become a lucrative business. Research in America has shown how all nine of the highest viewed TV events between 1990 and 2008 were sports events (Kuper & Szymanski, 2012). Yet as recently as the 1980’s, watching live football in England was described as a *“novelty”*, with relatively few games being shown on TV (Geey, 2019). For example, in 1985, the English First Division started without a domestic TV deal in place (Robinson & Clegg, 2018). Then head of BBC Sport Jonathan Martin was quoted as saying;

*“Soccer is no longer at the heart of television schedules and is unlikely to be again”* (Geey, 2019).

Martin’s analysis was proven to be quite erroneous. Upon the onset of the first season, the Premier League signed a contract with subscription channel Sky Sports (Robinson & Clegg, 2018). Since then, the relationship between the two

has been described as “*symbiotic*” (Geey, 2019). The revenue the Premier League has been able to derive from domestic broadcasters increased from £191 million to £3.014 billion over 20 years (Georgievski & Zeger, 2016). The current broadcasting deal, including overseas revenue, is said to net the 20 clubs over £8 billion (Geey, 2019). The games now air in 185 countries to a potential TV audience of 4.7 billion people (Robinson & Clegg, 2018).

Due to the increased TV money, membership in the Premier League itself is now arguably a more valuable prize than actually winning the competition itself (Robinson & Clegg, 2018). Being promoted to the Premier League is said to be worth £180 million (Geey, 2019). Relegation meanwhile is described as “*a financial sinkhole*” as the difference between the collective revenue of the Premier League clubs and the championship clubs is £3 billion (Robinson & Clegg, 2018). Despite these sums being described as “*astronomical*” (Geey, 2019), little critical analysis is evident on the sustainability of this increase, particularly with the advent of streaming meaning people are less dependent on television. That development will underpin this research.

Opinions are mixed on why the broadcast deal has seen a substantial rise in value. Economists David Forrest and Robert Simmons argued that close games were the Premier League’s source of competitive advantage as TV viewers were “*floating voters*” who are more likely to watch a game if it is competitive (Forrest & Simmons, 2002). In contrast, later research identified that star football players are the key determinant of television demand for football audience (Buraimo & Simmons, 2015). However when the tests used were refined and developed, it was found that games in which there was something at stake, i.e. a team hoping to win the league or qualify for the Champions League were every bit as important as star players in attracting TV audiences (Scelles, 2017). Geey endorses this finding by stating “*The Premier League has outperformed other leagues across Europe by being more balanced from top to bottom*” (Geey, 2019). Maguire also cites the unpredictability around match results as the main driver of overseas interest in the league (Maguire, 2020).

There appears to be a virtuous circle between the Premier League's significant broadcasting deal and its equitable distribution of those funds. Of the domestic revenue, 50% is split equally through central distributions, 25% based on number of TV appearances, with a stipulation on a minimum amount for each team and 25% based on final league position (Geey, 2019). This leads to the ratio between the top and bottom of the PL of around 1.6 to 1 which compares favourably to Germany or Spain where it is around 3 to 1 (Maguire, 2020). The overseas broadcasting revenue, which has increased substantially throughout the last decade, is split evenly between the twenty clubs (Geey, 2019). This fair distribution of funds has been described as "*The secret ingredient to the Premier League's competitiveness recipe*" (Maguire, 2020).

It is apparent that you simply can't tell the story of the Premier League without TV (Robinson & Clegg, 2018). It seems clear from the above that TV broadcasting revenue and the league are congenitally linked. Therefore, a hypothesis was formed that this could be the positive feedback mechanism driving up the price of transfers, as mentioned in section 2.1.

### 2.3 The Transfer Market, Valuing a Footballer and Regulations

Football skills are traded on a competitive market with the price being determined by a Nash equilibrium (Szymanski & Smith, 1997). The price, known as the transfer fee, represents the compensation paid to acquire a player's exclusive registration from another club, as the transfer fee ends the player's current contract and allows it to be transferred to the new club (Geey, 2019).

Transfers are often seen as the knee jerk solution to everything (Robinson & Clegg, 2018). Geey underlines their importance;

*"They allow teams to change the make-up of their squads, show ambition to their fans and increase the attractiveness of their team"* (Geey, 2019)

Yet, a study of English clubs between found that net outlay on transfers explained only 16% of a team's total variance in league position (Kuper & Szymanski, 2012)

The method of how a club conducts a transfer is changing. Traditionally, clubs relied on staff members scouting the players, with the million-pound investment typically made on a “*gut feeling*” (Robinson & Clegg, 2018). However, increasingly there is complex data monitoring individual players’ performances and attempting to identify undervalued players who can contribute to a team (Kuper & Szymanski, 2012). Today, the transfer fee is also more generally paid in instalments and amortized in the club accounts over the length of the player’s contract (Maguire, 2020)

Asset valuation has been a long-standing issue for economists (Tirole, 1985). This is no different with regards to footballers, where there is no exact science to valuing players (Geey, 2019). Although a footballer is an intangible asset and does have an accounting value, this generally bears little resemblance to their actual value (Maguire, 2020).

The Football Observatory put forward a methodology for finding a player’s value (Poli, et al., 2018). However, this determines the transfer value in the current inflated market, not the fundamental value so is of limited use. Paul Tomkins and Graeme Riley created a *Transfer Price Index* which measures the average price paid for a Premier League footballer each season against inflation (Tomkins, 2015). Using their tool, the Paul Gascoigne transfer adjusted for “*football inflation*” would be worth £93,738,573. Interestingly, this fee is a lot closer to the £105 million value of Phillippe Coutinho which was mentioned in the introduction. While this tool is undoubtedly of interest, there is little or no critical analysis on why football inflation exceeds the normal amount. Another interesting tool was the application of an option pricing model to calculate the real value of a football player separately both to his club and to a third party (Coluccia, et al., 2018). Again, while the difference is certainly noteworthy, it still places the valuation within the already inflated market instead of finding the intrinsic value.

The fees paid can be determined by any number of components. It requires significant hard and soft data elements such as their past performance, age, relevance of the club that is buying or selling etc. (Coluccia, et al., 2018). Noll adds that they are affected by extraneous events such as injuries, retirements, or

length of contract of the player (Noll, 2002) Maguire identified four components; supply and demand, available financial resources, contract length and sometimes a release clause (Maguire, 2020). Geey said it depends on age, current contract terms, international status of the player, length of remaining contract, nationality of the player and the position (Geey, 2019). The absence of a consensus among these sources shows the difficulty in attaining the true value of a player.

There is a general acceptance, even within the football world, that transfer fees have “*sky-rocketed*” in recent times (Barbuscak, 2018). The last thorough inflationary analysis of the English transfer market came from Dobson and Gerrard over 20 years ago. They noted an 11% year on year inflation over 6 years (Dobson & Gerrard, 1999). The aim of that paper was to prove there was inflation and the causes for it but there was little, or no analysis was conducted on the sustainability of this inflation. Of course, it is of interest to note that had they predicted it was a bubble then, they would have been proven incorrect to date, as the price continued to rise substantially after.

It is easy to argue that the market for football players is inherently irrational precisely because of the sale price of certain players (Coluccia, et al., 2018). Footballers are regularly exchanged for millions of pounds. Naturally, there is huge societal opportunity costs to this money. Swanepole summarises that the price of Premier League players is simply “*what fools are willing to pay for it*” (Swanepole, 2016).

Barbuscak counters this by arguing that that the money spent on soccer players is justified by either their productivity or their popularity (Barbuscak, 2018). Footballers today enjoy a level of fame and popularity previously reserved for TV and movie stars. This is noteworthy because he mentions a player’s popularity as one of the two key determinants of their price. Star quality, along with competitive games was previously mentioned in Section 2.2 as a valuable component in determining TV audiences (Scelles, 2017). Star footballers are actually assets to clubs because they are controlled by the football club and generate economic benefits for it (Maguire, 2020). So if the asset, in this case star quality football players, is the most important factor in attracting the highly lucrative television

revenue, it could perhaps be said that it makes sense that their price would rise correspondingly to the TV revenue.

Partly in response to these ever-growing transfer fees, UEFA introduced a new regulation called Financial Fair Play in 2009 in order to improve the overall financial health of European club football (UEFA, 2015). The rules state that clubs must breakeven or at least be within an acceptable deviation from it in order to participate in European competitions (Maguire, 2020). This was an important step to stop club's "*kamikaze spending*" on transfer fees (Geey, 2019). Nonetheless, the regulations have been criticised for prioritising efficiency over fairness and substituting one form of inequality for another (Szymanski, 2014).

Russian club Dinamo Moscow and Turkish club Galatasaray were expelled from European Competition as a result of breaking these regulations (Geey, 2019). However, earlier this year, Premier League club Manchester City managed to successfully appeal an alleged breach in the Court of Arbitration for Sport (Brennan, 2020). This means the effectiveness of the regulations are still very much in question. The Premier League themselves attempted to introduce rules on short term cost control with a view to reducing losses (Geey, 2019) but this was voted out by club owners before the 2019/2020 season (Maguire, 2020).

From the above we can see that football is a unique industry with several challenges. The aim of this paper is to test the industry to see if there is evidence of the components often seen in economic bubbles in the transfer market. As seen in section 2.1, these are;

*An increase in price that seems unlikely to reflect the true real value of an asset (Barlevy, 2007), accompanied by one or more of the following;*

- *Higher volume of trading (Phillips & Yu, 2011)*
- *Irrational market participants (Milgrom & Stokey, 1982)*
- *A clearly identifiable positive feedback mechanism (Sornette & Cauwels, 2014)*

## Chapter 3: Research Question

Developed from the literature review the clearly stated research question is as follows;

*Is there evidence that the transfer market for Premier League footballers has similar characteristics to those seen in previous economic bubbles?*

The null hypothesis is represented by the market not having any clearly identifiable characteristics when compared to an economic bubble.

The alternative hypothesis is represented by the transfer market for Premier League players sharing some of the same characteristics of economic bubbles as identified during the literature review.

The objectives are to test whether;

- The price for players in the transfer market has risen to an extent that is in unlikely to represent fair and true value (Barlevy, 2007).
- There is clear and obvious evidence of a higher volume of trading in the Premier League transfer market. (Phillips & Yu, 2011).
- The football clubs are inherently irrational and thus suspect to speculative trading (Milgrom & Stokey, 1982).
- TV Broadcasting Rights are a clearly identifiable positive feedback mechanism which could be helping to drive up the price (Sornette & Cauwels, 2014).



## Chapter 4: Methodology

This study uses both quantitative and qualitative methods. Some tests, such as the increases in price lend themselves quite easily to quantitative testing. Others such as identifying if the market participants are irrational tend to be more qualitative by nature. This paper notes that other research on asset bubbles use different mathematical tests. These are not required for this research, as the purpose is to identify if the characteristics representing an asset bubble are present. If this is proven, then further research could of course use the methodologies to determine the scale of the bubble (Tirole, 1985), what stage a crash is likely to occur (Sornette & Cauwels, 2014), or what intervention should take place (Barlevy, 2007)

It is a challenge to find accurate data on transfers, as the details are not always released to the public. When they are, it is typically by a club or an agent with an agenda (Kuper & Szymanski, 2012). For example, Real Madrid deliberately released an undervalued amount for the purchase of Gareth Bale, so it wouldn't upset another one of their players, Cristiano Ronaldo (Robinson & Clegg, 2018). This creates an obvious and accepted limitation as the accuracy of whatever source is used cannot be guaranteed. However, it is the rate of change of data that is important as much as the scale of that data, so absolute accuracy is of less concern.

This paper will use the secondary data from *transfermarkt.com* which is a leading database focusing on the transfers of soccer players (Barbuscak, 2018). As mentioned, it cannot be guaranteed that the data is completely correct. However, the website provides as good of an estimate as possible from those publicly available. It has been used in previous research with its details on transfers commended for having;

*“a good reputation in the sports industry and a high economic relevance; they are used in actual transfer and salary negotiations”* (Herm, 2014).

It is important to note that *transfermarkt.com* is an independent company so there is no reason to suggest that the data may be deliberately distorted to prejudice one league or team over another.

Of course, football transfers existed before the Premier League began in 1992. The limitation of not tracking transfers from before this year is accepted. However, that year has also been described as “*football’s revolution*” (Geey, 2019) so it is perhaps as good a place as any to start. Finally, it should be noted that the fees were manually transferred from the website to the author’s data collection. While great effort was made to do this as accurately as possible, as with most research, the limitation of possible human error occurring is accepted.

With regards to qualitative sources, an e-mail was sent to every Premier League club, along with those who were relegated recently. An example can be seen in Appendix A. The clubs were unwilling to speak to the author, citing several reasons including high volume of requests, confidentiality of data and lack of availability of staff.

However, there was several high-profile people within football who were willing to speak. An attempt was made to speak to people with different experiences and viewpoints on the game in order to avoid a groupthink of opinions. The author conducted interviews throughout June and July with Richie Sadlier, Jonathan Clegg, Ken Early, Gary Connaughton, Tony Evans and Pauly Kwetal. The roles these sources have held around football clubs include, player, scout, agent, head of recruitment, PR official, board member, CEO as well as a variety of journalism roles across TV, radio, print, podcasts, websites and blogs. They also cover three separate countries; Ireland, England and America. This allowed for a good diversity of viewpoints. A more detailed note on each individual’s background can be viewed in Appendix B.

Semi structured interviews were conducted and recorded via the video-conferencing platform Zoom. The interviewees agreed to being recorded and referenced by name and were made aware of their rights regarding data collection and storage. Methods of conducting online interviews (Lo Lacono, et al., 2016) were researched in detail before these discussions took place. A draft list of the

questions put to the interviewees can be seen in Appendix C. Not every individual was asked every question depending on the flow of the interview. After the sixth interview was completed it was noted that the author had reached a data saturation point where different anecdotes of similar themes were being discussed. At this point no more interviews were considered as it was felt that a good breadth of the main decision points had been achieved.

As mentioned during the literature review and the research question, this study has chosen four separate tests in order to determine if the characteristics of an asset bubble are present in the market for Premier League footballers. A similar approach was followed in the “*Why do Bubbles Still Occur*” section in *Can speculative bubbles be managed? An institutional approach* (Abolafia, 2010). Below will describe the approach used to answer test each of these tests.

#### 4.1 Has the price for players in the transfer market risen to an extent that is unlikely to represent fair and true value?

Firstly, using the secondary data derived from *transfermarkt.com* the transfer expenditure for Premier League clubs from the inaugural season 1992/1993, until 2019/2020 is presented. The method of attaining this data can be viewed in Appendix D. Following this, the net balance of transfers involving Premier League clubs is considered. This shows the flow of funds outside the league, i.e., Manchester United buying a player from West Ham United would net to zero.

Of course, simply by proving there has been an increase in prices throughout the years does not prove that the prices have risen to an extent that is unlikely to represent fair and true value. To do this, the data is compared against the data of other leagues in the sample, the French, Spanish, Italian and German leagues. This sample was chosen as the leagues are referred to as the “*Big 5*”, due to how they most commonly produce the winners of European trophies (Ante, 2019). These particular leagues are also compared in previous research, for example in studies on home advantage (Littlewood, et al., 2011) and the football labour market (Frick, 2007). Other statistical tools such as standard deviation, maximum and minimum are used to help analyse the data. Qualitative sources comment, observe and challenge the findings.

If the gap in spending between the leagues is roughly the same over time as it was in 1992, then the null hypothesis will have failed to be rejected. *Since ceteris paribus* the amounts should be the same, if the Premier League prices did increase significantly, it would likely not represent true and fair value.

#### 4.2 Is there clear and obvious evidence of a higher volume of trading?

Again, using data from *transfermarket.com*, the number of players transferred to and from clubs never relegated from the Premier League is presented. The method of attaining this data can be viewed in Appendix E. The relegated clubs were removed from the sample due to research which states that this distorts the normal activity of the clubs (Noll, 2002).

*Transfermarket.com* allows the data to be filtered to include or exclude loan deals and internal transfers. Loan deals are temporary transfers between football clubs, usually for a low fee (Geey, 2019). The decision was made to exclude loan transfers as it would then mean that the players returning to the club would be included in the sample. For example, if Manchester United loaned out a player to West Ham United, that would count as a transfer out, but when he returned to Manchester United the following year, it would count as a transfer back in.

Internal transfers were also excluded from the dataset. Internal transfers generally involve a player graduating from the reserve team into the senior squad. For the purposes of this research this is not deemed a transfer as the player never leaves his parent club to join another one and no consideration is exchanged.

For the alternative hypothesis to be accepted, it would be expected that the number of players traded would have increased a significant amount. If the level of players being transferred by Premier League clubs is at the same level or has fallen during this period, then the null hypothesis will have failed to be rejected.

#### 4.3 Are the market participants inherently irrational and thus suspect to speculative trading?

This section involves qualitative methods and is more interpretivist in nature. To accept the alternative hypothesis, football clubs must be proven to be irrational traders. In Economics this is represented by the below;

- Firms are profit maximizers (Mankiw, 2018).
- Consumers aim to maximise their utility from consumption by correctly choosing how to spend their limited income (Mankiw, 2018).

While the above may seem overtly simple, the decision was made to keep the definitions as simplistic as possible in order to sustain full engagement with the qualitative sources. The limitation of not using a more advanced method such as *Bounded Rationality Theory* (Lakos & Szendrei, 2017) is accepted. The sources are invited to answer a variety of different questions both directly and indirectly referencing the above definitions. Through their detailed responses and depth of experience a clearer picture should emerge of the rationality or otherwise of football clubs. For the alternative hypothesis to be accepted, there must be evidence that the football clubs are irrational traders.

#### 4.4 Is there a clearly identifiable positive feedback mechanism which could be helping to drive up the price?

This test combines both quantitative methods and qualitative methods. Reading the literature around Premier League it became apparent that it is intrinsically linked with television broadcasting rights. Therefore, an alternative hypothesis was formed whereby the TV broadcasting rights was the positive feedback mechanism driving up the price.

Unlike the transfers from the Premier League, the broadcasting rights value is publicly available. However, it is not possible to do a comparison with the other leagues in the “*Big 5*” as during the sample period, clubs in those leagues were allowed negotiate their own private deals, which were not always made available to the public. This means it is impossible to conduct an accurate comparative analysis.

It was determined that a correlation examination between the value of the TV rights deal and the transfer price data identified in section 4.1 could prove if there was a link between these two components. More information on the data collection can be seen in Appendix F. The correlation number and r squared number were both analysed to see if a strong relationship is present.

Although a positive correlation finding would be noteworthy, it was not felt that this would be enough to determine broadcasting rights as a positive feedback mechanism helping to drive up the price. It was therefore decided to use the qualitative sources to back up the primary findings. To ensure validity and reliability, TV broadcasting revenue was not a theme introduced to the sources. However, if they brought it up themselves, then several pre-prepared questions were asked to try and find the relevant information.

Overall, this mix of quantitative and qualitative sources provides enough opportunity for the above test to be explored in sufficient detail. If both elements suggest that there is a strong association between the value of the TV broadcasting rights deal and the transfer fees exchanged for Premier League players, then the alternative hypothesis would be accepted.

## Chapter 5: Findings

### 5.1 The price for football players in the transfer market has risen to an extent that is unlikely to represent fair and true value

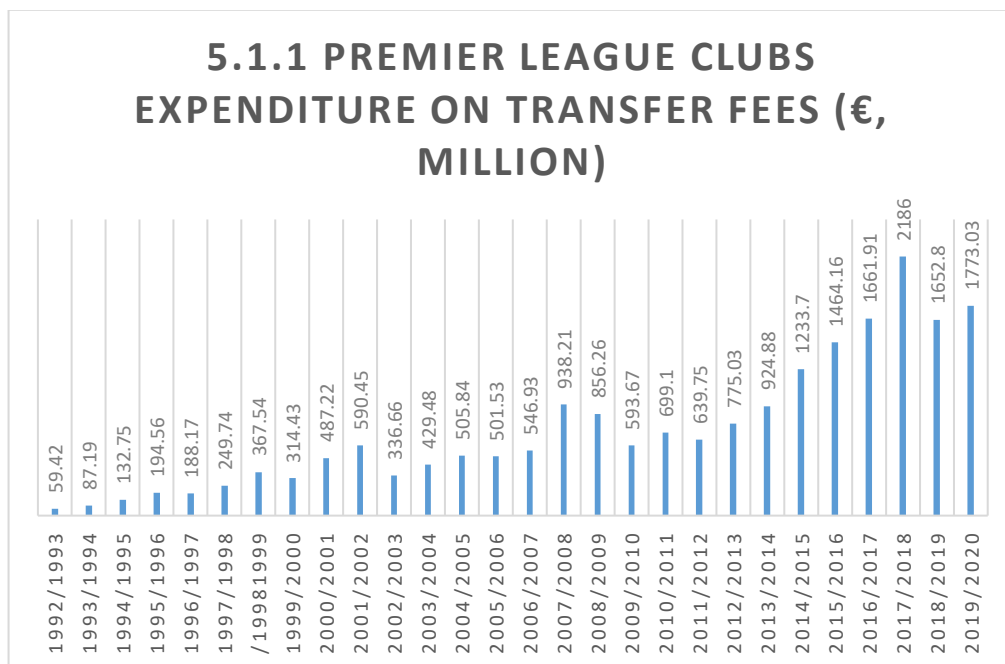
The first finding from this research is that the prices paid for Premier League footballers have risen to an extent that is unlikely to represent fair and true value. This is due to the period starting from 2012 where the prices rose significantly compared to the other leagues. This justifies the “*hyperbolic*” rise in prices mentioned earlier that would not appear to obey the normal laws of economic activity.

Even prior to Premier League beginning, there has been a debate on whether footballers represent value for the prices paid for them. Among the qualitative sources there was, as expected, a good degree of disagreement. Sadlier and Connaughton both felt that in the main, the players do represent value for money on the assumption that they help the club remain in the Premier League where the revenue streams justify the outlay. Sadlier in particular had an interesting experience where is in time as CEO of the Irish Club St. Patrick’s Athletic he reluctantly sanctioned a move for a player who ended up scoring multiple important goals in European competitions, securing much needed funds for the club and paying back the moderate transfer fee multiple times over.

Interestingly, Sadlier’s story hit on why Clegg and Evans think that most players are not value for money. Clegg identified that there are very few “*transformative players*” who can influence the club’s performance. While these players are worth the significant outlay, he believes that it is a waste to spend millions on anyone else. In his opinion, the absence of a clear distinction between these players and the rest of the transfers shows that there is not value for money. Evans agreed, saying that most Premier League players are interchangeable. He maintained there are a limited number of “*game-changers*” who are worth a significant outlay but said that the second and third level players are “*over-inflated to a huge level*”. He referenced a discussion he had with a Premier League manager who compared the difference in ability between most of the Premier League footballers to “*a cigarette paper*”.

The other two sources also disagreed. Early maintained the price is the price you must pay to be a Premier League club, because they can't risk underinvestment on younger players due to the threat of relegation. Kwestal was the strongest against it saying, *"absolutely not, transfer fees are some of the most wasted money"*. Himself and Clegg both also cited the research mentioned in the literature review that transfer spending only accounts for 16% of variance in a club's final league position (Kuper & Szymanski, 2012)

The lack of consensus among the qualitative sources made it the quantitative tests even more important. To begin with, the prices paid for Premier League footballers since the inaugural season in 1992/1993 were investigated. Please note that the Premier League season runs from August of one calendar year into the summer of the following one. Therefore, it is more correct to analyse the data by a season-by season basis rather than year on year. If the data was analysed year by year some teams would have been relegated, and others promoted. This would have caused the sample to be distorted during the second half of the calendar year.

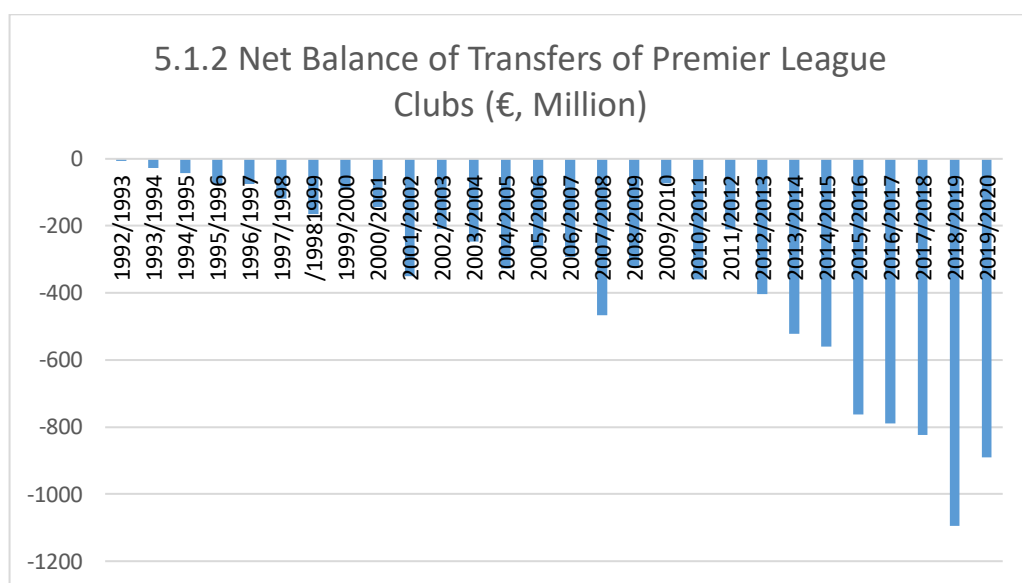


It can clearly be identified from this that the transfers fees involved in buying Premier League players has risen throughout the era. In particular, it is noteworthy that from the beginning of the 2012/2013 season, the prices seemed to be rising at a more sustained rate than before. For example, the percentage change between



2011/2012 (€639.75) and six seasons later 2017/2018 (€2.186 billion) is a rise of over 241%. In contrast, the percentage change between 2005/2006 (€501.53 million) and 2011/2012 (€639.75 million) is just over 27%.

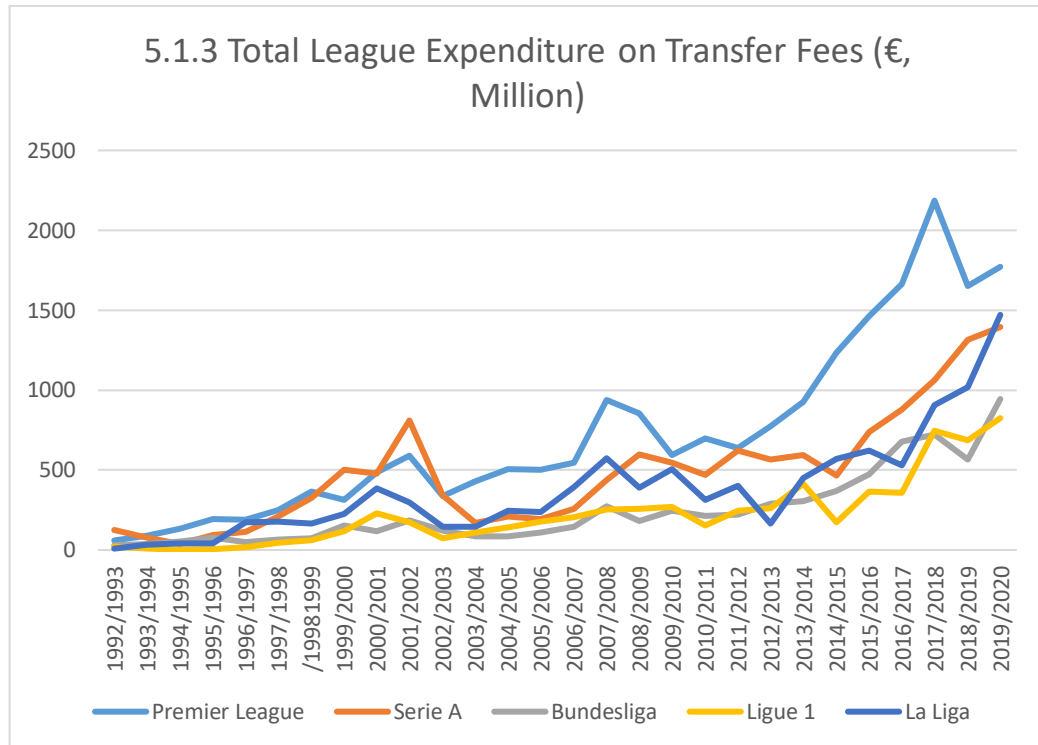
Similar evidence is found by reviewing the balance of transfers. This is a particularly interesting test as it shows the flow of funds out of the Premier League into other leagues. In these results, if Manchester United bought a player from West Ham United, the net would be zero, as the expenditure from Manchester United would be netted by the income from West Ham United.



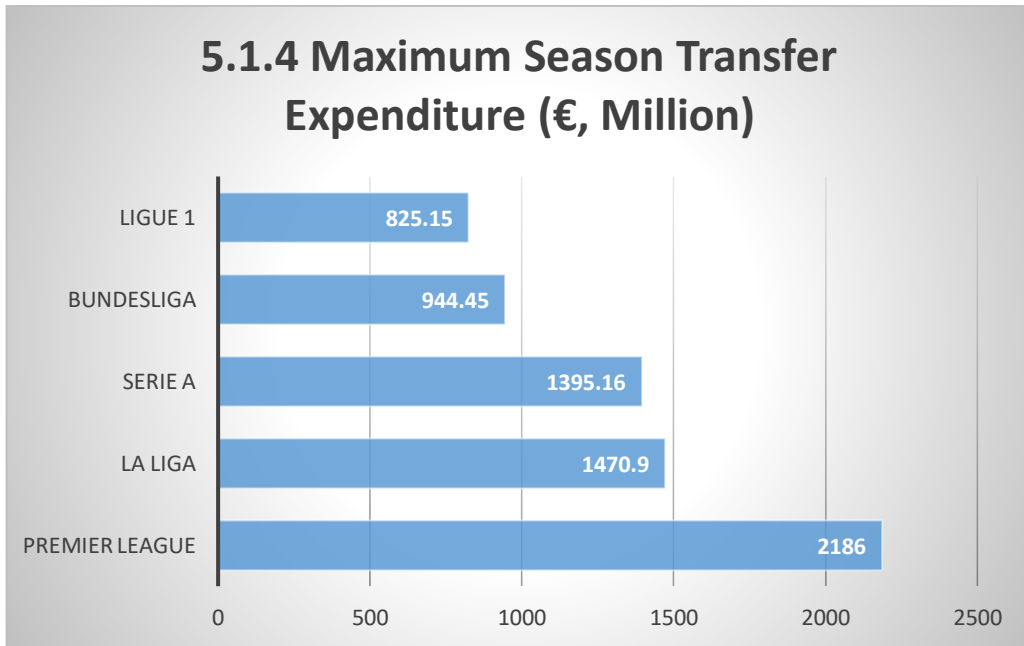
Yet again, the balance seems to be following a relatively smooth trajectory until perhaps 2012/2013. After then, the deficits appear to increase substantially. Interestingly, the low point in this graph is 2018/2019 (€1.094 billion), a season after the peak in expenditure seen in Figure 5.1.1. Nine seasons earlier, in 2009/2010 this deficit was only €72.75 million. The percentage increase in the deficit between 2009/2010 and 2018/2019 is over 1403%. In comparison, the percentage change between 2000/2001 (€144.48 million) and nine seasons after that, 2009/2010 (€72.75 million) is an actual percentage decrease in the deficit of just under 50%.

While the above may well be noteworthy, it does not indicate that a bubble may be present. As mentioned earlier, if the demand for a product shifts suddenly to the right then the price will rise obeying the laws of normal economic activity. To

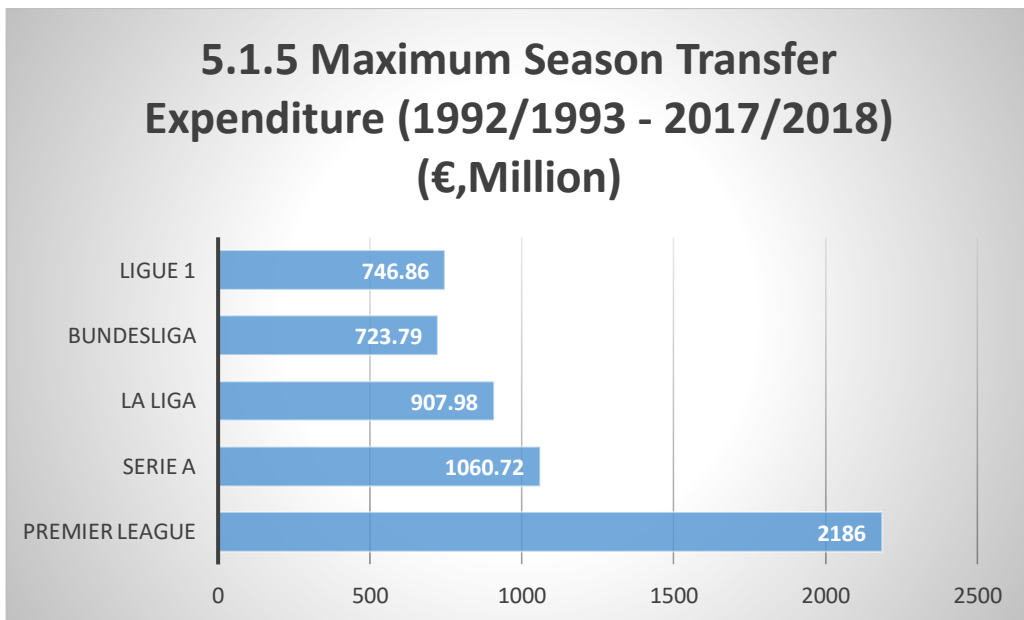
attempt to identify a bubble, we must prove that the rise in price is unlikely to represent fair and true value. In order to attempt to do this, the above figures are compared to the other four European leagues in the sample.



This is the clearest demonstration to date of the rate of the increase in transfer fees in the Premier League. From the first season until 2011/2012 the Premier League appears to loosely follow the same trajectory as the other leagues. The Premier League is always competitive and does rise above the other leagues in the mid to late 2000s. However, this period corresponded to unprecedented success in the European competitions and could thus be said to be justified (Robinson & Clegg, 2018). However English clubs did not enjoy nearly the same success in these competitions in the 2010s, yet the prices rose even more substantially than in the decade previously.

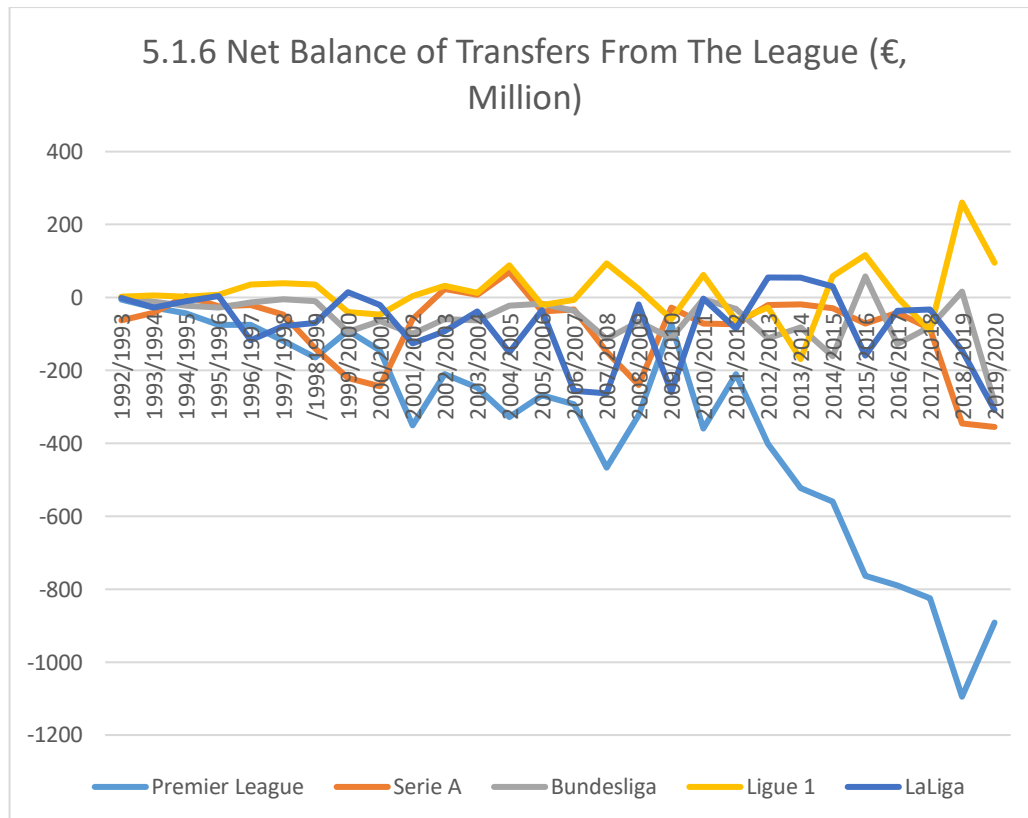


In the above, we can see that the Premier League’s maximum season on transfer spending is significantly larger than that any of the other leagues. If you stop the data at the maximum point for the Premier League, 2017/2018 it is even more visible.



In the above graph, the expenditure of Premier League clubs is more than the next two closest leagues totals combined. This opens up the possibility that the past year or two, other leagues could be trying to imitate the Premier League, an example of “noise” (Black, 1986) mentioned in the literature review.

Perhaps the most dramatic representation of this data comes from net balance of transfers of each league. In Figure 5.1.2 it was shown that Premier League balance of transfers reduced significantly from the 2011/2012 season onwards. The data below clearly shows that this was not matched by the other leagues in the sample.

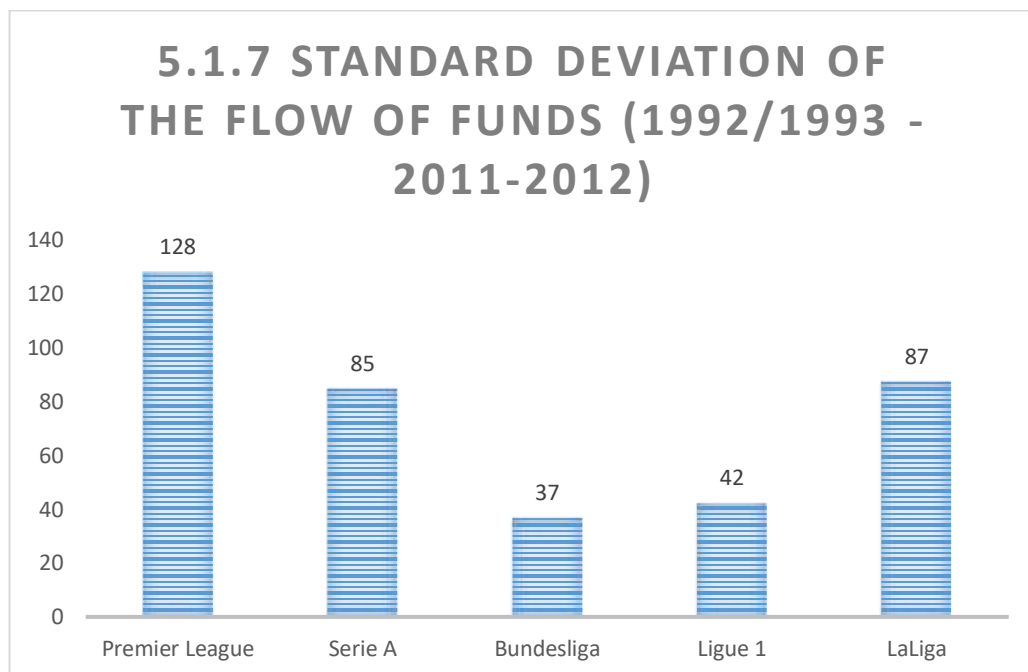


It is clear to see that the increase in deficits in the flow of transfers throughout the last seven or eight seasons was a Premier League trend only. In fact, from the season 2012/2013 until the season 2019/2020 the Premier League accounts for over 74% of the deficits between the 5 leagues.

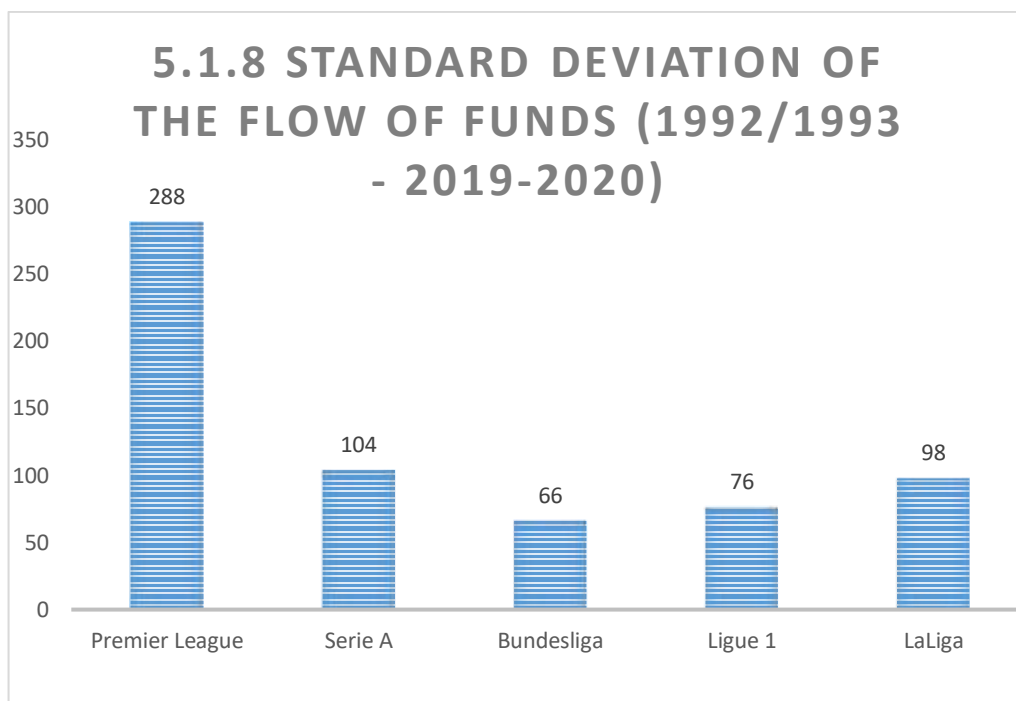
There was broad agreement among the qualitative sources that the reason for the flow of funds deficit rising significantly is due to the increased solvency of the middle to lower tier Premier League clubs. Clegg described how it is harder for clubs to buy players from the other teams in the league as there is no incentive to sell due to the sizable TV revenue. Kwestal also noted that these clubs do not have to sell their prized assets to balance the books anymore. He uses the example of Crystal Palace not selling Wilfred Zaha, where previously they would have to “run to the bank with the money”. Sadlier agreed, saying that because Premier

League clubs are no longer selling clubs, they are being forced to look abroad for more affordable transfers.

The deficit is then enhanced further as Early noted that foreign clubs can simply quadruple the asking price when Premier league clubs come in for a player, knowing they have the financial resources to match this. This point is backed up by Maguire in literature where he states that it is a commonly held view that selling clubs has two prices for their players, one for Premier League clubs and one for clubs who have less wealth (Maguire, 2020). Geey refers to this as “*The English Club Premium*” (Geey, 2019).



Here, it can be identified that the standard deviation between the different years was always the highest in the Premier league. This means that the Premier League always had the greatest variance from the mean. The percentage change between the Premier League and the next highest La Liga was an increase of just over 41%



When these figures are brought forward to the present day the standard deviation for the Premier League has more than doubled, even though it was an addition of just 7 seasons onto a total sample of 28 seasons. The percentage change between the Premier League and La Liga rises to almost 194%, a significant increase on the 41% derived from figure 5.1.7

In order to ensure reliability and validity of the data, secondary tests were run using data only clubs that have not been relegated. These can be viewed in Appendix G. The increase in the Premier League's expenditure and deficit is still quite pronounced and supports the findings in this section.

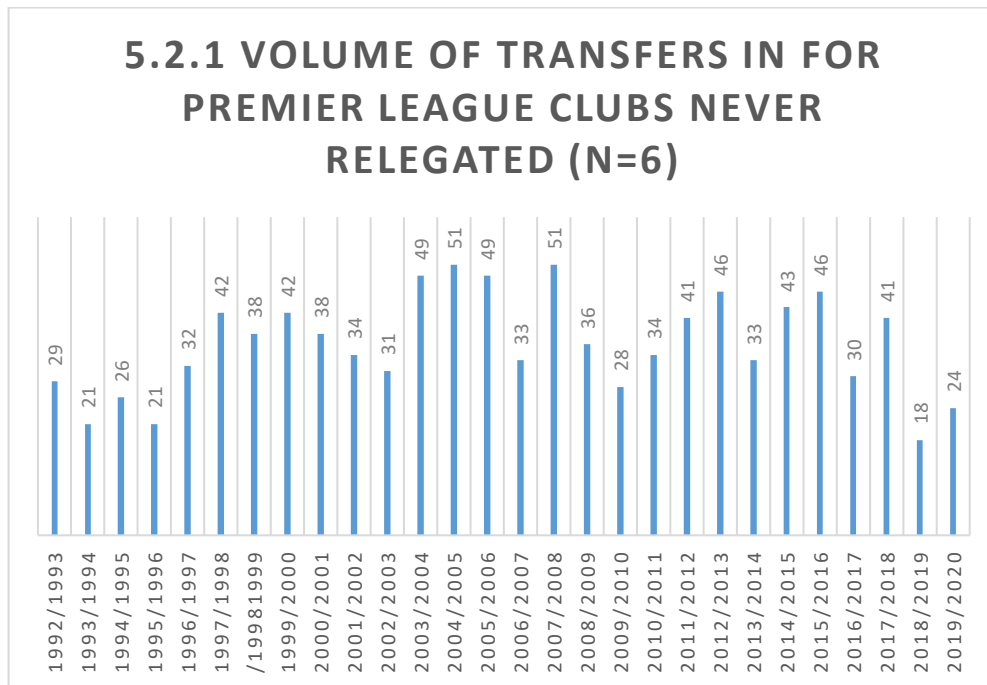
Overall, despite the disagreement among the qualitative sources, there is enough evidence in the quantitative data to suggest that the price of Premier League footballers has risen to the extent that is unlikely to represent fair and true value. The sudden escalation in the seven seasons before this paper were unmatched by any of the other leagues in the sample. The alternative hypothesis that the price for Premier League footballers has risen substantially over the other leagues is accepted.

## 5.2 There is no clear evidence of a higher volume of trading.

The second finding of this research is that there is no clear evidence of a higher volume of trading involving Premier League clubs. In Section 5.1, it was established a substantial price increase occurred from 2012/2013 season.

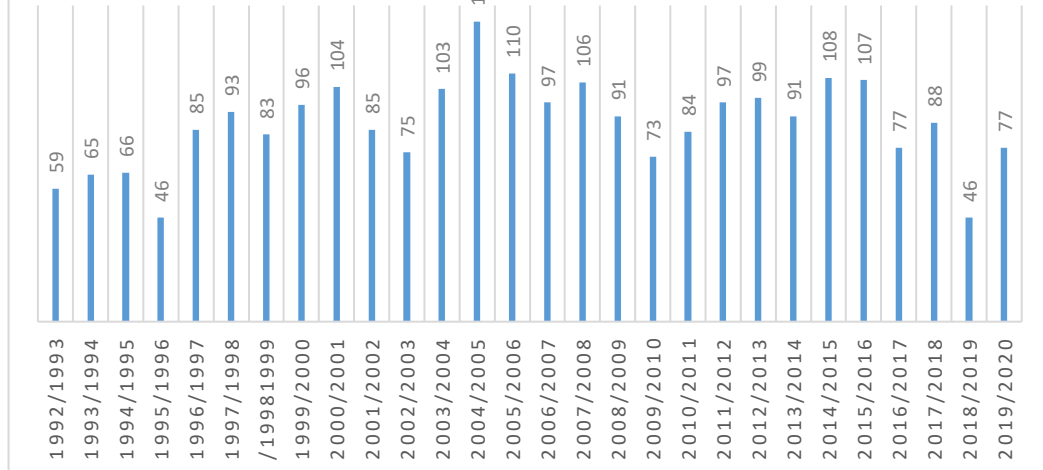
However, there is no evidence of a higher volume of trading during this or any other period.

The six English clubs who were never relegated were chosen as a purposive sample for this test. Below is a representation of the total number transfers in for those clubs.



As evidenced above, there is no increase in transfers during the period where there was a significant increase in the price. In fact, the 2018/2019 season where the flow of funds out the Premier League reached its peak, is the lowest recorded volume of transfers during the period.

## 5.2.2 TOTAL VOLUME OF TRANSFERS FOR PREMIER LEAGUE CLUBS NEVER RELEGATED (N=6)



Similarly, there is no statistically significant increase in the total volume of transfers throughout the Premier League era. The high point in the volume of trading is the season 2004/2005, which was outside the period where the notable price increase occurred.

Clegg pointed out that because fees have increased so substantially quite rapidly, that it is impossible to make higher volumes of transfers. Kwestal agreed, stating that the increase in fees now makes it impossible for clubs to make multiple transfers, noting also the UEFA Financial Fair Play Regulations which were mentioned in the literature review. Sadlier noted that despite the increase in price, you can still only play eleven players in the team so there would be little incentive to invest in extra players. Finally, Early mentioned that a transfer window was introduced in the 2002/2003 season which meant that clubs could now only make transfers during the summer months and during a January window. Prior to this clubs could make signings almost all year round.

Even taking the transfer window into account, there is no evidence that there was an increase in the volume of trading in the 2010s when compared to the late 2000s. Ultimately, the null hypothesis has failed to be rejected. There is no clear evidence of a higher volume of trading.



### 5.3 The market participants are irrational and thus suspect to speculative trading

This was perhaps the most subjective of the tests conducted. There was no quantitative test proposed so this relied solely on the qualitative sources. Throughout the interviews several common themes occurred. Firstly, there was broad agreement that clubs are not profit maximizers. Secondly it was deemed that clubs would like to be rational and often actually make moves to be. However outside forces intervene, mainly fans, agents and managers, that ultimately cause the club to act irrationally. These will each be discussed individually. Liverpool's transfer activity came up repeatedly during the discussions. Therefore, it will be discussed individually as it references the important themes.

To begin with, the sources were asked if they believed Premier League clubs aim to maximise profits. Clegg didn't think any club in the world attempts to maximise profits. Early agreed stating "*It's not how you run a club*". Evans said its more nuanced than that inside football, as there is a lot more involved than simply seeking profits. Sadlier said if he hadn't worked in football he may think so, but he is sure now, it's not the case. These findings are in broad agreement with the beginning of section 2.2 in the literature review which discussed in detail how football clubs do not have same profit seeking objectives as the majority of other businesses.

The most interesting discussion came around whether clubs rationally maximise their utility in the transfer market. There was broad agreement that the main reason a club chooses to buy a footballer is to improve their team or on pitch performance, quite rational reasoning. However, outside forces combine that lead to the decision makers to act irrationally. The common themes are discussed in turn below.

#### 5.3.1 Fans

Fans are "*the emotional and spiritual owners of a football club*" (Maguire, 2020). They are generally seen as one of the most vital stakeholders in the club. Fans effectively fund the game (Geey, 2019) by buying the match tickets, TV subscriptions and merchandise that keep the club in operation. However, what isn't often discussed, is that the fan's desire for new transfers is one of the most

prominent reasons clubs end up engaging in speculative trading. The amount of money a club spends on transfers can get fans either very excited or very irate (Maguire, 2020).

Early said that it is fans who get the most utility when their club buys a footballer. Kwestal agreed, observing that supporters are going to be a lot more excited about a new striker rather than a promise that their current striker is one year older and maybe a better player. Clegg pointed to the fact that Sky Sports have made a television event out of the last day of the transfer window where fans eagerly watch as clubs scramble to get deals done for players before the deadline. This points to the fact that the audience quite simply demand transfers take place. Connaughton agreed, noting that transfer rumours on the website he works with often receive greater views than actual match reports or opinion pieces.

What this points to, is significant pressure on the clubs to appease the fans' desire for transfers. Kwestal said that clubs need *"to sell their fans something new"*. Clegg observed that football clubs need to be *"seen to be acting"* in the transfer market. He believes that this stops the buyers from maximising their utility;

*"No one goes into a shop and worries that 40,000 people will scream at them if they come out with nothing"*

Sadlier agreed;

*"sometimes in the world of football, inactivity is viewed as the worst thing...sometime a bad deal is better than no deal because no deal is harder to stand over"*

He developed this point using the example of Arsenal's supporters reacting with dismay to the club repeatedly posting profits. In their opinion, these profits should have been invested in better players. This is to undermine the fact that Arsenal had just moved into a new stadium and were regular participants in the Champions League. Perhaps the irrationality is best summed up by Clegg's reference to how some club owners deliberately leak over-inflated transfers fees to the media so fans would think the club had spent an acceptable amount of money on players.

An interesting example of a club who did not give into fan pressure is Newcastle United. Early referenced the club as one of the closest things to a profit maximising club the league has ever seen. He described how the club attempts to spend the absolute minimum on players and effectively aims to finish 17<sup>th</sup>, just high enough to avoid relegation. According to Early their owner is the most unpopular in the league because he believes that to finish any higher than would be a significant waste of resources.

Evans contradicted this viewpoint, having spoken with sources close to a proposed Saudi Arabian Group who were interested in taking over the club. He described how the potential buyers were *“full of praise for how the club is being run”* and saw them as a prime club to take over. According to Evans, Newcastle are one of the most solvent clubs in the league. He described how the future of up to six clubs was said to have been in doubt had the 2019/2020 season not been completed due to Covid-19, but Newcastle were not one of them. According to Evans,

*“For outsiders coming into the game, Newcastle are actually a reasonable template for how to keep a club solvent”*

Neither the views of Evans nor Early are necessarily inaccurate. It is true that Newcastle in recent years appear to have shown little ambition to move onto the next level from perennial relegation candidates. It is also true that this probably isn't a bad way to run a business if you were hoping to turn some sort of a profit. Evans cited a quip from a former Man United chairman saying that if he was thinking rationally, he would like the club to finish second in every competition so they would gain revenue for competing without having to pay out bonuses for winning the competition. It is unlikely you would find any fan who would agree with that sentiment.

There is a clear dichotomy between what fans want to see in a football club and what is best for business. Clubs sometimes appear to move to use the transfer market to reduce this dichotomy, rather than to rationally improve their team. This could not be described as rational behaviour.

### 5.3.2 Agents

Like fans, agents are also regularly commented on by observers of football. However, unlike fans, their role is not seen as a positive, often seen as a curse on the modern game (Geey, 2019). The role of an agent was traditionally to look after the well-being of a player. However more recently, they have started to exert influence on football clubs and footballer transfers (Maguire, 2020). Transfers are the “*bread and butter for an agent*” and importantly, a significant source of commission (Geey, 2019).

The first issue with agents seems to be that they simply raise the price of a transfer. Early said that you only must look at the published agent’s fees to see the amount of money being lost to them in transfers. A net total of over £263 million was paid by Premier League clubs to agents during the 2019/2020 season (BBC Sport, 2020). Sadlier, who worked as an agent, remembered a transfer of a Premier League player where a million pounds went missing from the transfer for a “*consultation fee*”. Evans noted that a ‘free transfer’ of a high-profile player from one Premier League club to another actually was a cost of £47 million paid to the player’s agent or as he put it “*disappeared out of football*”.

Sadlier pointed out that for a club, having a good relationship with an agent is now seen as a “*necessary component*”. This perhaps shouldn’t be surprising as Early noted that the clubs who generally spend the most on agent’s fees, get the better players, and are then more successful. Early also referenced that agents today often actually instigate transfers rather than clubs themselves. In some cases, the agent does not even have to be working with either party. In an intriguing anecdote, Evans noted how an intermediary not working with either club or the player instigated a high profile transfer between Premier League clubs and took a significant cut of a deal as a result.

Evans also referred to the fact that most clubs now have a favourite agent or group of agents who will come to them with players available. He described how this means the agent is almost acting as a director of football. In what is a seemingly more recent development, Clegg, Evans, Early and Sadlier all identified the trend of clusters of players from one agent being transferred to the same club in a short

period. Evans described how “agents will often say I’ll give you player A if you want if you take Player B from me.” He said this simply can’t be rational. Perhaps this development is best summed up by Clegg;

*“Teams will sign some players from an agent’s portfolio purely to have a better chance of getting another player that agent works with and this doesn’t seem like a rational way of acting to me”*

### 5.3.3 Managers

There is sometimes a misconception that football clubs are huge businesses. In fact, the turnover of an average Premier League clubs is not dissimilar to what one would expect from a single Tesco store (Kuper & Szymanski, 2012). In most cases, if Tesco were about to make a million-pound investment, it would involve a decision-making committee where various people would have their say on the strategy. Generally, the autonomy for a football investment comes down to a single individual, the manager. A man, who the statistics show is more likely to not be in the job, than to be in it, in 18 months’ time (Kuper & Szymanski, 2012).

Evans worked within a football club and described it as a “cottage industry”. He described how the behind the scenes staff at the clubs were generally loyal fans, who had been in their role years before the league became “bloated with money”. This is backed up in the literature review where off the pitch, football was described as “creaking into professionalism” (Kuper & Szymanski, 2012).

Perhaps the lack of expertise behind the scenes for the staff is one of the reasons why Premier League clubs give excessive autonomy to managers over transfers. Early thinks this is more pronounced than anywhere in the Premier League and one of the main reasons why a large percentage of the most famous managers have chosen to work there. Clegg commented with dismay on how giving this power to managers is to the determinant of any long-term strategy for the clubs due to their high rate of attrition. He described how an American sports team would typically have a general manager tasked with long term player recruitment.

Sadler, a former player himself, noted that a manager can simply choose to buy or sell a player based on whether he likes him or not and it not likely to be questioned. Evans agreed, citing the example of a manager signing a player he

knew, not to improve the team, but because he wanted an alley in the dressing room. Clegg described that sometimes clubs worry that the manager will just leave if they don't buy him players, so are forced into investments. Early noted that it's not the responsibility of the manager to balance the books so they are more likely to want to make transfers. He described how managers in the league want to keep spending money to hold onto their role. Clegg also made this point; "*Managers have very different priorities to the club themselves, usually to cling onto their job*". This view is also held in literature as Geey comments on how managers don't have "*moral hazard*" when making transfers (Geey, 2019)

One of the significant issues around this, is it provides a fertile ground for fraud. From working within the game, Sadlier knew of a manager who accepted a payment from an agent in order that the manager would sign players from him. Evans said that everyone in football knows about the "*bung culture*" where managers sell players to line their own pockets. Early agreed that there used to be and often still is, a great deal of corruption surrounding transfers.

That is not to say when the decision-making power is taken away from the manager, everything runs better. Evans used the example of Chelsea signing "*trophy assets*" the club owner, rather than the manager, wants as one of the reasons the club has had a high turnover of managers. Three of the signings he references, Andriy Shevchenko, David Luiz and Fernando Torres were what he describes as "*vanity buys*" for the owner rather than rationally improving the football team. In contrast, Clegg described how the Manchester City ownership proposition a colour coded 40-page dossier to discuss each potential new signing they make. He thinks it's quite remarkable that in the Premier League, this is the exception rather than the rule.

As evidenced above, it is extremely difficult to argue that the market participants are rational when the supporters are demanding the club spends its profits, agents are refusing to deal with them unless they accept injudicious deals and the decision-making is delegated to one short-term employee. The transfer activity of Liverpool was a repeated theme throughout the interviews, so the decision was taken to isolate their activity to explore some of the themes interdependently.

#### 5.3.4 Case Study: Liverpool

Kwestal, an American, described how Liverpool are owned by Fenway Sports Group who also own the Boston Red Sox baseball team. The Red Sox were an early subscriber to the Moneyball approach. This was a belief that statistical data, rather than human knowhow was the key to a successful baseball team (Kuper & Szymanski, 2012). Kwestal said the owners tried to adopt a similar approach to transfers in England. Evans who has had quite a lot of dealings with the group said that they made it clear during the takeover in 2010 that they weren't simply going to go to buy the most expensive players the manager or the fans demanded.

Early dismissed the *"crude statistical approach"* adopted during the early days of this system. He said that Liverpool used a single measure, chance creation, in order to buy three players one summer. What this model did not account for is the fact that all three players took corners for their clubs, but only one could take each corner for Liverpool. Sadlier noted that the players might have set up chances for their respective team due to the tactics applied, i.e., extremely tall players or quite quick players; *"You can't just pick that up and put it into the Liverpool team"*.

Evans referred to how Liverpool signed a goalkeeper because the analytics department thought he was the third best keeper in the league. When they revised the statistics, they found out a mistake had been made and he was the ninth best. Early described how the mismatched approach to signings was typified by the signing of two completely, almost incompatible different strikers on the same day. Luis Suarez, signed on the back of rigorous data analysis, was proven to be success. However Early noted that Andy Carroll, an expensive failure, was also signed on the same day simply to appease the manager because he liked him. He described the approach at the time as;

*"a primitive statistical approach combined with old school power of a manager resulting with a train-wreck outcome"*.

Liverpool refined their statistical approach. As usual with football clubs, this also involved a change in manager. They hired Jürgen Klopp, one of the most respected managers in football. This led to an upturn in the quality of their transfers. A signing which perhaps typified this approach is the purchase of Virgil

Van Dijk from Southampton. He is the example of what Clegg calls a “*transformative player*” and or what Evans said was a “*game-changer*”

Interestingly though, Evans noted that 6 months earlier Liverpool could have signed the same player for £15 million less. He remembered how a premature leak to the press that the transfer was going to take place annoyed the selling club to the extent that they refused to sell at any cost. Interestingly though instead of “*being seen to be acting*” to appease their fan base, or buying any player at any cost because they thought Klopp might walk away, Liverpool didn’t sign a different player. They were patient and came back in during the next transfer window instead, paying a premium fee as a result.

Kwestal described that Liverpool’s transfer strategy is now a mix of cheaper undervalued players, combined with high value signings of “*almost sure things*” which has proven to be successful. However, despite being credited with taking a more analytical approach, Early noted that they have paid more in agent’s fees than any other Premier league club in each of the last three years. He described that even with this statistical approach they still needed agents to “*grease the wheels*”.

Clegg referred to how the change in manager was still the most important factor in turning their fortunes around. So, while now they may appear to be rational actors, there is no guarantee that this will remain the case for the future. Evans described how it took Liverpool nine years to get a real positive result from this approach and that there was a lot of luck involved rather than any “*master plan*”. He emphasised the importance of getting the best manager going and paying the necessary fees for top quality proven players.

The case study of Liverpool, along with the individual research of the three components highlight how even attempts at acting rationally often lead to irrational trading. A club is under pressure to make transfers to appease their demanding fan base. A change in manager will often likely lead to a whole new change of approach in the market. And with this approach, the agent is the big winner facilitating the moving around of players from club to club with ever



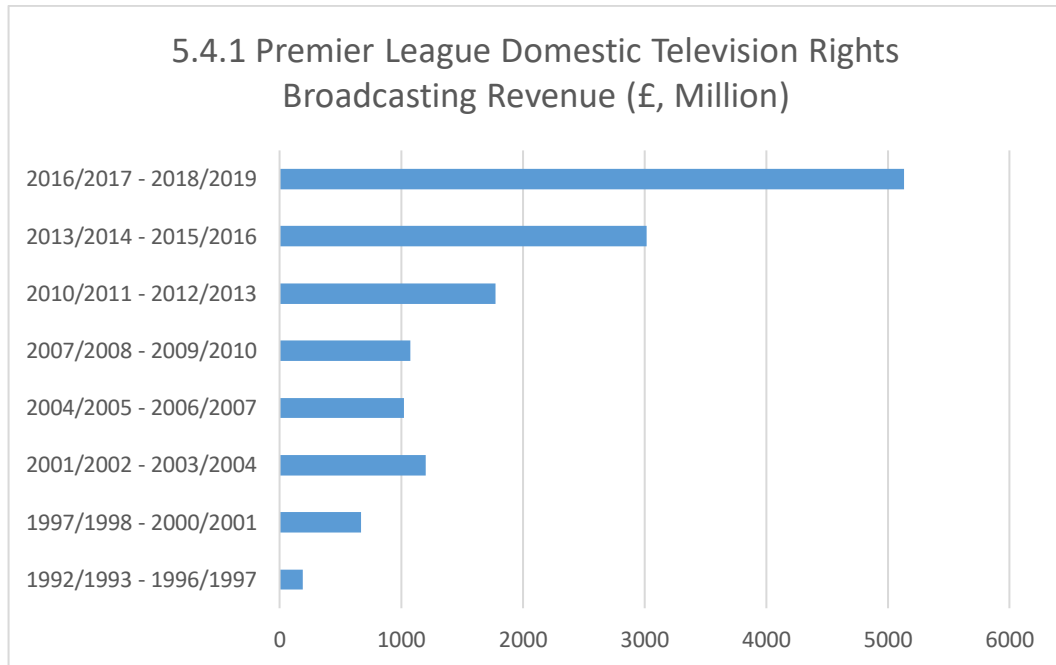
greater fees involves. It would be extremely difficult for anyone to act rationally in that market.

#### 5.4 Television broadcasting rights are a clearly identifiable positive feedback mechanism which could be helping to drive up the price

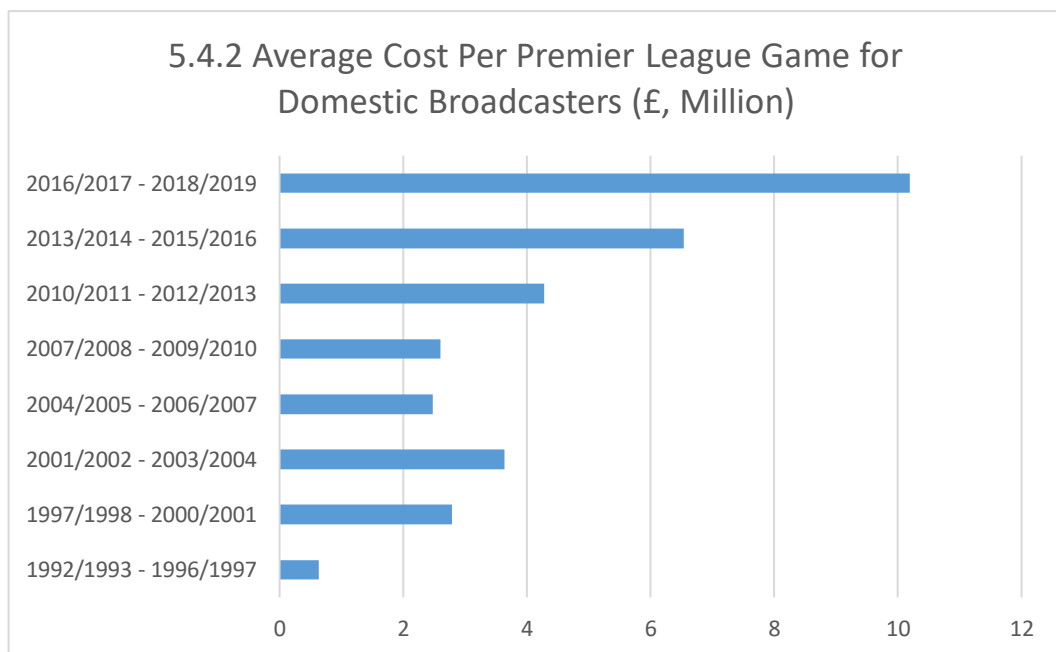
Throughout the literature review and the qualitative data collection, television broadcasting rights was almost mentioned synonymously with the Premier League. As far back as the formation of the Premier League, television rights to show the live games were a key issue (Kuper & Szymanski, 2012). Thereby, the author had formed an alternative hypothesis that television rights deal could be helping to drive up the price of transfers. To challenge any bias, both quantitative and qualitative tests were presented in order to test for this. In order to not lead the interviewees, the interviewer took great care to not bring up the television broadcasting rights unprompted. In all cases, the revenue derived from TV came up in the discussion naturally, again showing the suspected links between the two.

When posed the question “*What is the main reason for the increase in transfer fees*”, there was unanimous agreement that this was caused by an increase in the broadcasting revenue. Kwestal pointed out that when he first started watching the Premier League, most games were not even broadcast in America, yet now NBC are paying \$1 billion for the rights to show every game. Clegg thinks the increase in TV money has caused the cost of relegation to be greater in the Premier League than in other leagues, directly leading teams to spend more to avoid it. Evans directly referred to the TV money making the transfer market irrational, commenting how big clubs now have the money to keep a full squad of international players on their books. Early described how Premier League clubs are “*gluttoned with cash*” from TV revenue causing the clubs to be run poorly especially when compared to their European counterparts. This in turn explains the poor performance by Premier League clubs in European competition during the last decade. He cited that the bottom club in the Premier League could feasibly earn more broadcasting revenue than the top team in the other European leagues. This is backed up in literature which states that Sunderland got more broadcasting revenue when bottom of the Premier League in 2016/2017 than that the French, Italian or German champions (Geey, 2019)

This provided the author with the basis to conduct quantitative testing. To begin with, domestic Premier League broadcasting deals since the inaugural season in 1992/1993 were charted.



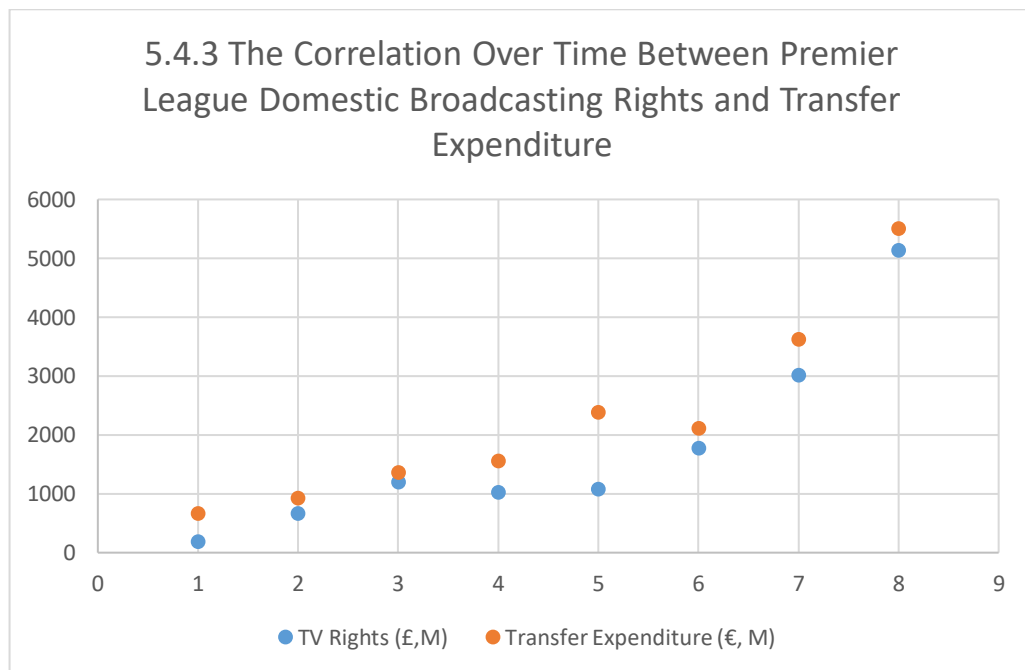
The revenue derived from broadcasting has increased substantially. It could also however be argued that the amount of games the providers show has also increased. By calculating the average cost per game, you can discredit the latter argument.



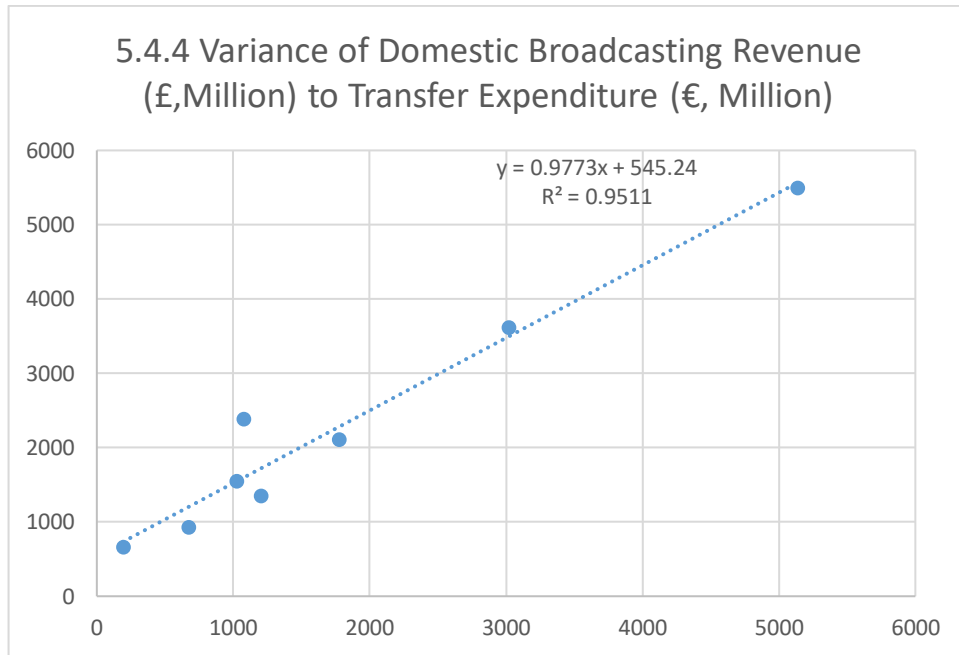
In the initial five-year television rights deal, the average cost per game was £640,000. In the last completed deal, it had risen to £10.19 million per game. Even this was a percentage increase of over 70% from the deal negotiated only three years previously.

So, what has any of this got to do with the transfer market? It was decided to test to data for the Premier League transfer expenditure with the Premier League Broadcasting Rights for correlation. Since the TV rights deals were sold in an initial 5-year package, followed by three-year packages, the expenditure for those seasons were added together to match this.

The correlation between these two data sets is very high, .98. This can be seen more clearly on the below graph.



This clearly shows that there is a strong relationship between the two. This becomes even more pronounced when it is tested for variance.

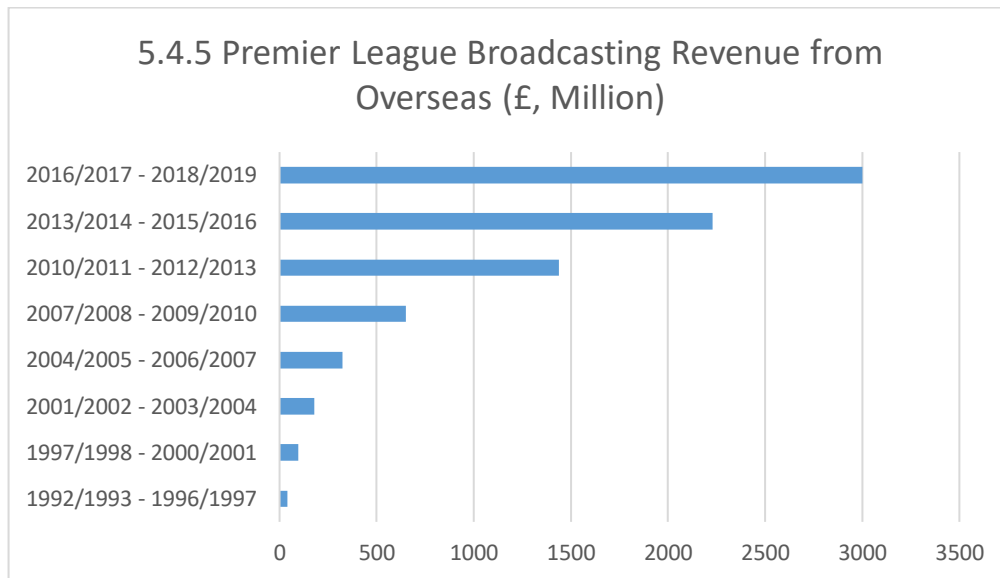


The  $R^2$  number is an exceptionally high .9511 which means over 95% of the variance of transfer expenditure can be ‘explained’ by the variance in TV broadcasting revenue. This leads to the question what would happen if the TV Revenue decreased?

Sadler experienced it a smaller version of it when he was player in the then English second division. A TV broadcasting deal with ITV Digital fell through when the company went into administration in 2002. Even then, he said that the club was heavily reliant on TV money. Sadler described this as having a “*material effect on pretty much everything*”. His club, Millwall were due to sign two players, but couldn’t as they had to dramatically rebalance their budget because the club “*had already spent money they thought was in the post*”.

Among the other sources, Kwestal expected the transfer prices to go down if the TV Revenue decreased, identifying that this would harm smaller clubs more than the bigger clubs. Evans agreed that smaller clubs would be the worst effected, saying how “*the bottom would fall out of the market*” if the revenue declined. Clegg thought the market would move towards a more “*Hollywood style*” where the transformative players would still command ever growing transfer fees, but the prices paid for the supporting players would decline significantly.

Interestingly the Premier League domestic rights did slip for the first time when the current deal started in the 2019/2020 season. However, this was accompanied by a significant rise in overseas rights. From initially being almost negligible, the overseas rights have increased substantially in recent years as the league grows more popular worldwide, including in lucrative regions such as the USA and China.



According to Premier League Premier League chief executive Richard Masters;

*“We have every reason to be optimistic about the future of sports rights. I don’t think the bubble has burst, because our business is effectively hedged between domestic performance and international performance”* (Rathborn, 2020)

Among the qualitative sources there were mixed views on whether Masters’ view is correct. Connaughton expected the revenue to keep rising for the foreseeable future, as did Evans who remarks that he can’t see it stopping soon. Early disagreed, answering *“How can it!”* when asked if he thought it would continue to rise, while Kwestal said everything must hit a ceiling at some stage and come down. Connaughton believes that the worldwide market could still be exploited further, but Evans had first-hand evidence of a big Chinese city where he maintains only expatriates had any interest in watching anything other than the biggest games. Sadlier said he was not sure, while Clegg said he cannot see it continuing to rise from TV companies but did caution that streaming services are

a huge unknown and could offset the effects of “*cord-cutting*”. Cord-Cutters is the name given to consumers who no longer simply subscribe to TV stations and instead carefully choose what they want to watch, usually using streaming providers (Geey, 2019).

The influence of streaming providers could change the landscape immensely, but in what way it is still unknown. Evans again had first-hand experience, due meeting with executives from a streaming company who he described as desperate to get involved in the Premier League. Clegg believes that the Premier League would be an incredible vehicle for these streaming platforms to reach new markets. Kwestal noted that simply by the introduction of these new players into the market, the revenue derived should rise, “*That’s just free market capitalism*”.

Clegg identified that the “*Big Six*” Premier League clubs (Manchester United, Manchester City, Arsenal, Chelsea, Tottenham Hotspur and Liverpool) have recently been demanding an extra share of the overseas broadcasting rights. Evans made a similar point observing that they often threaten the remaining clubs with the idea of leaving the Premier League to join a “*Super League*”. The basic core of the Super League idea being that the biggest clubs across Europe would face off against each other all the time to ensure a greater share of TV broadcasting revenue, instead of the more equitable shift currently in place in England at least. Early dismissed this idea out of hand describing how the essential big club experience is being successful against the little teams. Evans agreed, observing how certain clubs within the Big Six purporting this might not even make it into a European Super League.

The Big Six leaving the Premier League to join to a Super League is not the only thing the Premier League should be worried about according to Early. He questioned whether football itself is a form of entertainment which has seen its best days. He cited the decline in popularity of baseball, traditionally seen as America’s game, as evidence that football could be a dying sport. In his opinion, a ninety-minute game which not a lot happens is going to increasingly see people look at their phone rather than the TV screen which they pay a monthly subscription for. He doesn’t believe that people will be willing to keep paying

more and more for something that's on just one of the three screens they are going to be looking at;

*"The notion of sitting down and just watching a game is already gone. Football journalists don't even do that anymore"*

He also pointed to the growing illegal streaming from younger people;

*"Everybody knows how to do it and the younger you are the more likely you are to do it"*

Early's point is certainly interesting. The issue for clubs is that even if you believe that the TV revenue may fall, by not investing your current revenue you may be putting your club at risk of being relegated which will harm the club finances even further. Evans described this as *"an arms race"*. Sadlier referred to his earlier point about how a transfer will be justified if it helps your club reach their goal. Even the rather sceptical Early described the current television revenue as a club's *"chips in the game"*, referencing how you need to use it to stay in the league;

*"It's the resource base for staying in the game...having money in the bank doesn't help you if you are relegated"*

There is clear evidence that broadcasting rights are a key deterrent that is helping to drive up the price of the transfers. This, along with the irrational market participants and the hyperbolic price increase proves that some characteristics of a bubble are present in the market for Premier League footballers. Despite there being no clear and obvious evidence of a higher volume of trading, the alternative hypothesis that there are characteristics of an economic bubble present in the transfer market can be accepted.



## Chapter 6: Discussion

The findings show that the transfer market for Premier League footballers exhibits some of the characteristics of an economic bubble. A legitimate question to ask is why does that matter? As mentioned earlier, transfer inflation was noted as far back as 1997 (Dobson & Gerrard, 1999) and the league appears to be going from strength to strength since then. Today, players are being transferred into the league for increasingly higher money. The literature review mentioned star players are one of the biggest determinants of TV audience (Scelles, 2017). So, the TV companies should be happy to keep paying higher and higher premiums to show the new expensive talents. What could go wrong?

While you imagine that argument could be compelling to a current Premier League executive, it betrays the fact that some critical fault lines do appear to be occurring. The real cost of the rise in TV broadcasting revenue and transfer fees has been to make an already unequal league even more unequal. It has created a “*Big Six*” of clubs, Manchester United, Manchester City, Liverpool, Tottenham Hotspur, Chelsea and Arsenal whose spending process outstrips the remainder of the league. A scientific measure of the value of football clubs by Tom Markham found that in 2018, the value of the Big Six combined was now almost 3 times the value of the remaining 14 clubs, combined (Maguire, 2020).

The findings of this research did show that the remaining clubs can demand higher fees for their star players. However, if the big club really wants him, they can afford to pay the inflated fee to get him. It could be argued the Big Six are the only clubs in the league which have a truly low probability of relegation meaning that they can spend freely knowing they will in receipt of TV revenue for the forthcoming years (Maguire, 2020). Even Leicester City, who defied all the odds by actually winning the league in 2016, ending up selling N’Golo Kante, Riyad Mahrez and Danny Drinkwater from that squad to Big Six clubs (Geey, 2019).

What the TV money and price increase have done is ensure that the Premier League clubs outside the Big Six receive more money for their players. This means is that well-run clubs can then reinvest that sum in replacement players. However, if they do that wisely, the new players will simply be hoovered up by

the Big Six too. The most obvious example of this is Southampton, one of the smarter English clubs in the transfer market (Geey, 2019). They sold their defender Dejan Lovren and their attacking midfielder Adam Lallana to Liverpool. With the proceeds they reinvested in another defender Virgil Van Dijk and another attacking midfielder player, Sadio Mane. Lovren and Lallana were not instant successes, so what did Liverpool do? They went back to Southampton and bought Van Dijk and Mane. Southampton were now back to square one, although admittedly with a healthier bank balance. As the former Southampton executive chairman Nicola Cortese put it *“I had the money to buy players, but not the money to keep players”* (Delaney, 2020)

Bigger clubs' cherry picking the best players from the rest of the league is not a new phenomenon. However, the increase in TV money and transfers has allowed this to happen at a scale never previously envisioned. This has caused and will continue to cause a gaping chasm to appear between the bigger clubs and the rest of the league. Already in the last decade alone, there is clear evidence of this occurring. Up to and including the season Leicester won the league in 2016, only one club had ever broken the 93-point barrier, Chelsea in 2004/2005. It was subsequently broken in each of the last four seasons, by three separate clubs (Delaney, 2020). Amazingly, in 2018/2019 both Manchester City and Liverpool broke it meaning it wasn't even enough for one club to win the title (Premier League, 2019). By comparison, in 1996/1997, 75 points was enough for Manchester United to win the league (Premier League, 2020).

In fact, in each of the last four seasons, a succession of various records have been broken. Chelsea broke the record for most consecutive league wins in 2016/2017 and became the first team to win 30 matches in a single season (Premier League, 2017). The following season, Manchester City became the first team to break the 100 point barrier breaking numerous other records that campaign, including registering the best goal difference, the most away points, the most wins, the earliest title win and the biggest title winning margin (Premier League, 2018). Manchester City matched their most wins record the following season, which also saw the most points combined for the top two teams (Premier League, 2019). In the final completed season before this paper, Liverpool matched the most wins in

a season as well as setting new records for the biggest ever lead at the top, the most home wins in a row and in a season, the earliest title win and best start to a season ever (Premier League, 2020).

The succession of long-standing records being broken by three separate clubs strongly suggests that the increase in transfer prices is helping to increase inequality in league. This is not uncommon among the Premier League's peers. In fact, the Premier League is perhaps slightly fortunate that they have several clubs to share this 'burden'. Inequality has been a consistent feature of the European leagues throughout the last decade. In Germany, Bayern Munich have won seven titles in a row, Juventus have won nine in a row in Italy and Paris Saint-Germain seven of the past eight in France (Marcotti, 2020). Since 2010 there has also been a first German treble, a first Italian treble, three French domestic trebles in four years and the first ever 100-point seasons in Spain and Italy (Delaney, 2020).

The issue for Premier League to deal with is it is marketed differently to the other leagues. Consider again section 2.2 of the literature review. Star players and competitive games with something at stake were the key determinants of television audience for football matches (Scelles, 2017). Yet the Premier League has never been a place for the world's truly best footballers. For example, between 2012 and 2018 no Premier League player featured in the top five of the world's best footballers (Gallagher, 2020). These players are generally more likely to play with Barcelona or Real Madrid (Robinson & Clegg, 2018). Only twice in the last 20 years has the winner of the award played in the Premier League that year (Gallagher, 2020).

This leaves the second of Scelles' determinants; competitive games in which there is something at stake (Scelles, 2017) which was endorsed in the literature review by other sources. While the very best players may not play there, there has always been competitive games in the Premier League. Competitive balance is key for a healthy and successful league (Geey, 2019). This is perhaps why the Premier League marketed itself as a league where "*there are no easy games*" (Robinson & Clegg, 2018). That was its source of competitive advantage. Yet as mentioned

above, the money certain clubs can now spend on transfers could be beginning to erode this.

This development could help accelerate Early's assertion that masses of people could move away from watching games on subscription TV. This must be viewed as some sign of Armageddon scenario for the Premier League. They may point to idea that fans are loyal to their club and will continue to support them over any sociological trend. However, research has shown that most football fans behave more like consumers than addicts, i.e. they are willing to substitute goods if they don't like the product (Kuper & Szymanski, 2012). It has already been suggested that a saturation point has been reached where fans are overloaded with football and are switching off and cancelling subscriptions to pay TV (Geey, 2019). Yet as seen in the findings. these subscriptions are the fuel for the purchases of expensive signings they crave for their club. Despite this, there is already evidence that cord-cutting is already having an effect on the Premier League. Reports over the 2016/2017 season show that viewing figures in the Premier League had fallen to a seven year low (Geey, 2019).

This problem is enhanced because, as mentioned during the literature review, Premier League football is now effectively a television event. Clubs will go to any lengths to ensure that broadcasters receive value for money (Geey, 2019). Kick-off times are regularly moved to facilitate TV companies schedule, much to the dismay of fans who have to travel to away games (Robinson & Clegg, 2018). This is because the money derived from the match-going fans is almost negligible. Research shows that in 2018, eleven clubs could have made a profit even while letting fans in for free (Maguire, 2020).

Perhaps the most obvious assertion of this trend was the introduction of the Video Assistant Referee into the league. Here, a second referee reviews big decisions that could have an impact on the game. While s/he is doing that, the viewer watching on TV is treated to a replay of the incident from a variety of different angles. The supporters in the stadium do not get to view the incident a second time. They just wait until the decision is announced by an official, ironically also watching the game on TV.

Another clear illustration of the Premier League's increased dependence towards TV broadcasting revenue came during the onset of the coronavirus pandemic which is ongoing as this paper is being written. On March 13<sup>th</sup> the league postponed all activity due to the virus (Ahmed & Di Stefano, 2020). Other leagues, such as France and Scotland simply cancelled their season on the grounds of safety and awarded the championship to the team most likely to win it (BBC Sport, 2020). The Premier League was well placed to do this as Liverpool had opened a substantial gap at the top of the league and no onlooker could credibly refute that they would become champions.

What quickly became apparent was that the Premier League were never going to do this. Not due to any sort of ethical grounds, but because clubs would have to pay significant rebates to the TV companies if they did (Steinberg, 2020). As mentioned in the findings, the solvency of up to six clubs was said to be doubtful, if they had to repay the TV revenue. What eventually occurred was the rather curious spectacle of matches being played behind closed doors in front of no fans. The TV companies even piped in fake crowd noise so the event would be more watchable to viewers. It was once thought that football without fans was nothing. It was now needed to keep some clubs alive.

To put it simply, broadcasting revenue is now the lifeblood of the Premier League (Geey, 2019). As mentioned in the literature review, the Premier League shares the revenue relatively equally among the twenty clubs (Robinson & Clegg, 2018). The recognised benefit of the collective selling is it improves the overall quality and competitiveness of the league (Geey, 2019). However, in more recent years, there has been a growing clamour from the Big Six for a greater share of TV revenue (Robinson & Clegg, 2018). This led to the first change to the Premier League's founding model since 1992 as the Big Six secured a greater share of overseas broadcasting revenue over a certain amount (Maguire, 2020). This will likely increase the inequality further as these clubs already almost have a monopoly on the substantial Champions League broadcasting revenue (Geey, 2019). It perhaps should be remembered that Premier League was initially founded as a result of leading English clubs wanting a greater share of

broadcasting revenue (Robinson & Clegg, 2018). Perhaps history could be about to repeat itself.

If the current singular focus on capturing TV revenue continues, it may be eventually inevitable that a Super League will form as a way for the bigger clubs to grab the maximum share of revenue. It was reported that the Big Six have already discussed this possibility with other European clubs (Geey, 2019). As mentioned during the findings, this outcome seems quite undesirable and will change the landscape of the sport as it has been presented for generations. West Ham chairman David Gold said “*it will destroy football as we know it*” (Geey, 2019). To avoid this, the lawmakers must think about introducing more regulations.

UEFA’s current attempt at regulating the market might have had a paradoxically negative effect. As mentioned in the literature review, measures were introduced to ensure that clubs had to break-even with a view to curbing over-spending (UEFA, 2015). Yet since the introduction in 2011, Premier League clubs spending has increased more than ever before, as evidenced in Finding 5.1. Rather than reduce their spending, it appears that the focus by clubs has been to maximise their revenue to sustain and enhance their expenditure on players

It seems rather bizarre that America, commonly seen as capitalism’s capital is ahead of European soccer in this respect. In most of their team sports, salary caps are in place (Maguire, 2020). This means that franchises with rich owners can’t simply keep unlimited numbers of the best talent on their books. There is also a draft pick for the most talented younger players. The team who performed the worst the season before gets the first draft pick in order to improve their team’s chances. Players generally move at the end of their contract. If they do move during an existing contract it’s usually an exchange deal for another player (not popular in the football transfer market) or for an earlier draft pick (Dobson & Gerrard, 1999).

American sports have been described as “*protectionist*” (Robinson & Clegg, 2018) because there is no relegation in their main games. The franchises remain the same year in and year out. As mentioned by Clegg in the findings, it is the fear

of relegation that often causes Premier League teams to invest in players. The certainty of not having this makes it is easier to implement systems such as salary caps and draft systems.

An interesting and perhaps more measured solution was proposed by respected football journalist Gabriel Marcotti who suggested that the Premier League should cut the amount of players a squad can have from the currently quite generous 25 to 19 (Marcotti, 2020). This means that Liverpool could still buy Lovren. They could also still sign Van Dijk a couple of years later. The difference being that instead of keeping Lovren on their roster as back up, they would have to effectively “cut” Lovren from their squad to make room for Van Dijk. Lovren would then be free to join a different club. That club may then have to release a player to make room for him and so on. Marcotti believes that this would create a trickle-down effect helping to improve the competitiveness of all teams (Marcotti, 2020).

For UEFA or the Premier League, doing nothing simply should not be an option. Evidence can be seen in the lower leagues of English football of clubs who were relegated from the Premier League and then struggled to survive. Portsmouth went from being one of the biggest spenders in world football to administration over the course of three years (Georgievski & Zeger, 2016). Bolton, a regular Premier League team only relegated during this decade, went into administration in 2019 with stories about unpaid staff having to use foodbanks and no hot water at the training ground due to unpaid bills (Maguire, 2020). Other clubs such as Bradford, Wigan and Sunderland have also been in financial trouble, having previously dined at the top table. The Premier League rolls on without them with growing transfer fees propping up its status as the self-styled “*Best League in the World*”. This may not last forever.

## Chapter 7: Conclusions and recommendations for further research

### 7.1 Conclusions

Ultimately this paper has achieved its objective in proving that the transfer market for Premier League footballers displays some of the characteristics often seen in economic bubbles. Three out of four of the characteristics were identified clearly in the market.

1. The price for players in the transfer market has risen to an extent that is unlikely to represent fair and true value (Barlevy, 2007). This is particularly relevant from the beginning of the 2012/2013 until the present day. During this period the Premier League's clubs' expenditure rose to a significant degree above its four closest competitors.
2. There is no clear and obvious evidence of a higher volume trading in the transfer market than during previous years (Phillips & Yu, 2011). During the period starting from 2012/2013, the trend was like what it was in the twenty seasons before. In fact, there is no discernible trend of higher volumes of trading throughout the twenty-eight seasons. The results were almost random.
3. Football clubs act irrationally and thus engage in speculative trading (Milgrom & Stokey, 1982). As expected, football clubs were found to not be profit maximising businesses. It was found that clubs are not inherently irrational as they do try and maximise their utility in the transfer market. However, several outside forces, namely supporters, agents and the club's manager lead them to act irrationally.
4. TV Broadcasting Rights are a clearly identifiable positive feedback mechanism which are helping to drive up the price (Sornette & Cauwels, 2014). It was found that the correlation between the TV broadcasting rights and transfers fees was very high. Qualitative sources also agreed



that Premier League clubs transfer spending is influenced to a serious degree by how much TV revenue the clubs receive.

The fact that a higher volume of trading was not present does not invalidate the findings. Likewise, the fact that three characteristics are present does not necessarily mean that it is a bubble. As mentioned throughout this paper, bubbles are difficult to predict, although they are often obvious in hindsight. This paper has only attempted to prove that some components often featured in bubbles are currently visible in the transfer market for Premier League players.

TV broadcasting rights became the unexpected central theme to this work. In the beginning, a different hypothesis, years where there were World Cup tournaments was put forward as a potential positive feedback mechanism driving up prices. However, upon reviewing the literature and during the qualitative research, it was simply impossible to ignore the effect that the TV broadcasting revenue has on the league.

The most succinct question is, what would happen if the revenue gets taken away. During 2019/2020, a round of Premier League games was shown on a web provider Amazon Prime, the first time Premier League games have been streamed online (Geey, 2019). This was Premier League's tentative first step towards moving their games away from TV onto web providers. The issue being that people pay a lot less for an Amazon Prime subscription than they do for Sky Sports. The shortfall will have to be made up by either party, or both, for the transfer market's trajectory to be maintained. It also remains to be seen that if consumers are willing to go online to watch a game, is there enough proof that they won't just look and find a free illegal stream?

Bubble or no bubble, the scale of spending by Premier League clubs over the last number of years has clearly risen dramatically. What is clear, is that this has increased the split in the league into a Top 6 and the rest. While inequality was always present in football, the difference now is it is purely down to money. The Premier League, and perhaps football as a whole need to take steps to address this imbalance. Sport should not simply be the outcome of free market capitalism, where the richest club wins. It's supposed to be better than that.

## 7.2 Recommendations for future research

If the author of further research was to accept that these characteristics are enough to prove that a bubble is present, then a number of different methodologies could be used to determine the scale of the bubble (Tirole, 1985), what stage a crash is likely to occur (Sornette & Cauwels, 2014) or what intervention should take place (Barlevy, 2007). Although perhaps if someone did believe it was a bubble, the starting point should be to place where it is currently using Kindleberger's five phases of an economic bubble (Kindleberger & Aliber, 2011).

A standalone research paper could look at the impact that TV revenue has on the Premier League. This paper didn't have the scope to have a deep look into the companies paying for these rights themselves. An interesting next step could be to identify if these companies have any similarities to other examples of "noise" fuelling bubbles. For example, is there any common set of characteristics in the relationship between the TV companies and the Premier League and the outcome of the investigation into how banks fuelled the Irish housing bubble (Honohan, 2010)?

Further research could explore the current and future landscape from the viewpoint of these TV companies. This research could take place from several different angles; Are they getting the desired return from each Premier League game? What do they see as the future in the TV subscription model? How do they plan to keep a growing audience that is used to communicating within 280 characters watching 90-minute football matches, with an hour of discussion before and after? What is certain is that these broadcasters must find innovative ways to reach fans (Geey, 2019)

Finally, Figure 5.1.3 showed that over the last 2-3 seasons the other four leagues in the sample, particularly the Italian and Spanish leagues, started to close the gap on expenditure to the Premier League. It would be interesting to note some of the reasons for this. Are there 'normal' reasons, such as several of the clubs being taken over by rich owners, or a new TV deal? Or is this an example of herd mentality where in a vain attempt to keep up with the Premier League, clubs in those leagues are overspending. If the latter is true, a similar study conducted at a future

point in time for other leagues could investigate whether the Premier League is the positive feedback driving up the price.

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## Appendix A: E-mail send to Premier League Clubs

Hello,

My name is Martin Tierney and I am studying International Business at the National College of Ireland.

As part of my dissertation I am comparing the rise in the price of transfers in the Premier League to the other four major leagues in Europe.

It would be fantastic for my research if I could interview someone in your club about this? Please note that no individual transfer fees or inside information would be discussed. The interview would just be about general trends in the league.

If anyone in your organisation can help me out, I would be immeasurably grateful. More information is available on request.

Please feel free to reply to this e-mail or you can contact me on my mobile at

██████████.

Thanks again for your help with this.

Martin Tierney

## Appendix B: Introduction to Qualitative Sources

Each interviewee was asked to introduce themselves and explain their relationship with football. Below is a transcript of what they said. Where necessary the author has included elements the respondent may not have mentioned.

### Jonathan Clegg

*“I’ve been a sports journalist writing primarily about soccer or football for about 12 years now...I’ve been at the Wall Street Journal since 2009 and launched their coverage of European sports soccer, in particularly Premier League soccer...I’ve also done a bunch of World Cups and other international tournaments”.*

Jonathan is also the co-author of *The Club: The story of how the Premier League became the richest, wildest and most disruptive force in sport.*

### Pauly Kwestal

*“I have been for the most part of football fan for the better part of 16-18 years...I’ve been covering the sport online for about a decade now. I started at Bleacher Report, I was a feature columnist there. I have written for a whole slew of other websites including the Comeback and now The Busby Babes as part of SB Nation. I have my own blog and I do videos”*

### Richie Sadlier

*“I’ve had lots of different roles in the world of football. I was a professional player between 1996 and 2003 with Millwall and Ireland. I was then head of recruitment for the Millwall academy in South London so my job was to oversee the recruitment of the best youngsters in the area, monitor the progress of the players, release the ones who were to be released and convince the ones to stay who we wanted to stay. I was a football agent, a consultant for a sports management company acting as an advisor for the football agency side of things for a year with Drury Sports Management. I was a columnist for the Sunday Independent for a decade writing primarily about football and I’ve done some stuff for the Irish Times over the last year and I’ve been a member of RTE’s football analysis team for the last decade or so mainly on TV and sometimes on radio... I was a member of the board for St. Patrick’s Athletic for a year and then CEO for 16-18 months”*

### Tony Evans

*“I’ve been a football fan all my life, I’m a journalist who came to journalism late after the Hillsborough disaster. I am now a columnist with the Independent and a former football editor of The Times of London”*

Tony also worked as a publication’s editor with Chelsea Football Club

### Gary Connaughton

*“I’ve been a football fan for more or less forever, I’m now write online for the Irish sports website Balls.ie. I cover all sports but in particular the Premier League”*

### Ken Early

*I’m a journalist, I’ve been a football journalist for 20 years covering it for a Second Captains, The Irish Times, The Irish Examiner, Newstalk radio and Setanta Sports*

## Appendix C – Questions for Qualitative Sources

What in your opinion is the most common reason for a Premier League Football club to buy a player?

What are some other reasons?

In your opinion, are these rational reasons?

Do you see any major differences between the reasons why Premier League clubs sign players and the reasons why clubs in other leagues sign players?

Do you think Premier League clubs aim to maximize profits?

Do you think Premier League clubs aim to maximise their utility from buying players by correctly choosing how to spend their limited income?

The amount of money that Premier League clubs pay for footballers has increased substantially throughout the last 25 years. What in your opinion are some of the main reasons for this?

### Only if they mention TV Revenue

Does an increase in TV money justify the increase in transfer spending?

Would you expect the TV money to keep rising?

In your opinion what would happen to the price of transfers if it didn't.

What would you predict for the future of Premier League Broadcasting Rights?

What impact do you expect online providers such as Amazon Prime and Netflix showing Premier League games would have on the Revenue currently generated?

Do you believe that most footballers represent value for money?

What explains the increase in PL club's transfer expenditure from 2012-2019.

Why did this not correspond to success like 2004-2009

Why is the flow of funds out of the PL so much bigger than other leagues?

What are the reasons you think a club are likely to break their budget for a footballer?



Despite all the increases in transfer spending, can you explain why there is no evidence that PL clubs are making more transfers than before.

## Appendix D – Dataset for League Expenditure

The data is too large to be presented here in full. Below is a sample of the data along with instructions on how to replicate it. Full dataset is available on request.

	1992/1993
<b>Premier League</b>	
Expenditure	59.42
Income	53.61
Balance	-5.81
<b>Serie A</b>	
Expenditure	119.69
Income	57.52.
Balance	-62.17
<b>Bundesliga</b>	
Expenditure	29.4
Income	30.3
Balance	0.9
<b>Ligue 1</b>	
Expenditure	21.24
Income	22.69
Balance	1.45
<b>La Liga</b>	
Expenditure	8.51
Income	7.35
Balance	-1.16

1. Visit <https://www.transfermarkt.com/>
2. Click on *Transfers and Rumours*
3. Click on *Transfer Balance*
4. Change to period to a season.
5. Click *Display Selection*
6. You should be presented with the income, expenditure and balance for that season.

## Appendix E – Dataset for Club Expenditure and Volume of Transfers

The data is too large to be presented here in full. Below is a sample of the data along with instructions on how to replicate it. Full dataset is available on request.

<u>Premier League</u>	<u>1992/1993</u>
<b>Arsenal</b>	
Expenditure	4.6
Arrivals	4
Income	3.25
Departures	3
Balance	-1.35
<b>Liverpool</b>	
Expenditure	4.15
Arrivals	4
Income	4.22
Departures	6
Balance	0.07
<b>Manchester United</b>	
Expenditure	3.53
Arrivals	4
Income	2.13
Departures	4
Balance	-1.4
<b>Everton</b>	
Expenditure	0.12
Arrivals	3
Income	3.45
Departures	3
Balance	3.33
<b>Tottenham Hotspur</b>	
Expenditure	6.7
Arrivals	4
Income	10.6
Departures	7
Balance	3.9

**Chelsea**

Expenditure	2.93
Arrivals	10
Income	5.1
Departures	7
Balance	2.17

**Serie A****Lazio**

Expenditure	13.28
Arrivals	12
Income	6
Departures	10
Balance	-7.28

**AC Milan**

Expenditure	26.15
Arrivals	9
Income	2
Departures	6
Balance	-24.15

**Roma**

Expenditure	4.5
Arrivals	4
Income	0
Departures	10
Balance	-4.5

**Inter Milan**

Expenditure	37.1
Arrivals	12
Income	13.25
Departures	15
Balance	-23.85

**Ligue 1****PSG**

Expenditure	6.5
Arrivals	8

Income	0
Departures	7
Balance	-6.5

### **Lyon**

Expenditure	0
Arrivals	7
Income	0
Departures	9
Balance	0

### **Bordeaux**

Expenditure	7
Arrivals	9
Income	0
Departures	10
Balance	-7

### **Bundesliga**

#### **Bayern Munich**

Expenditure	11.05
Arrivals	7
Income	9.45
Departures	8
Balance	-1.6

#### **Borussia**

##### **Dortmund**

Expenditure	6.35
Arrivals	7
Income	4.75
Departures	6
Balance	-1.6

#### **Bayer Leverkusen**

Expenditure	1.25
Arrivals	3
Income	2.8
Departures	6
Balance	1.55

#### **Weder Bremen**

Expenditure	3.93
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Arrivals	4
Income	0.65
Departures	5
Balance	<b>-3.28</b>

**Schalke 04**

Expenditure	0
Arrivals	6
Income	0
Departures	8
Balance	<b>0</b>

**La Liga**

**Athletic Bilbao**

Expenditure	0
Arrivals	0
Income	0
Departures	5
Balance	0

**Real Madrid**

Expenditure	<b>3.5</b>
Arrivals	2
Income	<b>2</b>
Departures	5
Balance	-1.5

**Barcelona**

Expenditure	<b>2</b>
Arrivals	4
Income	0
Departures	3
Balance	-2

**Valencia**

Expenditure	0
Arrivals	5
Income	0
Departures	5
Balance	0

1. Go to <https://www.transfermarkt.com/>
2. Click on *Transfers and Rumours*
3. Click on *Income and Expenditure*
4. Next to *Period*, choose the season you would like
5. Next to *Loans*, click *Exclude Loans*
6. Next to *Transfers within the club*, click *Without club internal transfers*.
7. Click *Display Selection*
8. Find each individual club

## Appendix F – Dataset for TV Broadcasting Revenue

1. Method of finding Premier League Transfer Expenditure can be seen in Appendix C.
2. Domestic Broadcasting Rights Value is made publicly available.  
<https://www.statista.com/statistics/385002/premier-league-tv-rights-revenue/>
3. Broadcast rights are negotiated over a three or 5-year basis, so Premier League expenditure needs to be added together to reflect this.

Table F.1 Premier League TV Rights and Transfer Expenditure

Numbers Assigned	Seasons	TV Rights (£, M)	Transfer Expenditure (€, M)
1	1992/1993 - 1996/1997	191	662.09
2	1997/1998 - 2000/2001	670	931.71
3	2001/2002 - 2003/2004	1200	1356.59
4	2004/2005 - 2006/2007	1024	1554.3
5	2007/2008 - 2009/2010	1076	2388.14
6	2010/2011 - 2012/2013	1773	2113.88
7	2013/2014 - 2015/2016	3018	3622.74
8	2016/2017 - 2018/2019	5136	5500.71



4. Amount of games shown can be found at

<https://www.sbibercelona.com/newsdetails/index/403>

Table F.2 Average Cost Per Game Shown on Domestic TV

Cost (£m)	Season	Games	Average Cost per game
191	5	300	0.64
670	4	240	2.79
1200	3	330	3.64
1024	3	414	2.47
1076	3	414	2.60
1773	3	414	4.28
3018	3	462	6.53
5136	3	504	10.19

5. Overseas revenue can also be found at

<https://www.sbibercelona.com/newsdetails/index/403>

Table F.3 Overseas Revenue from Broadcasting

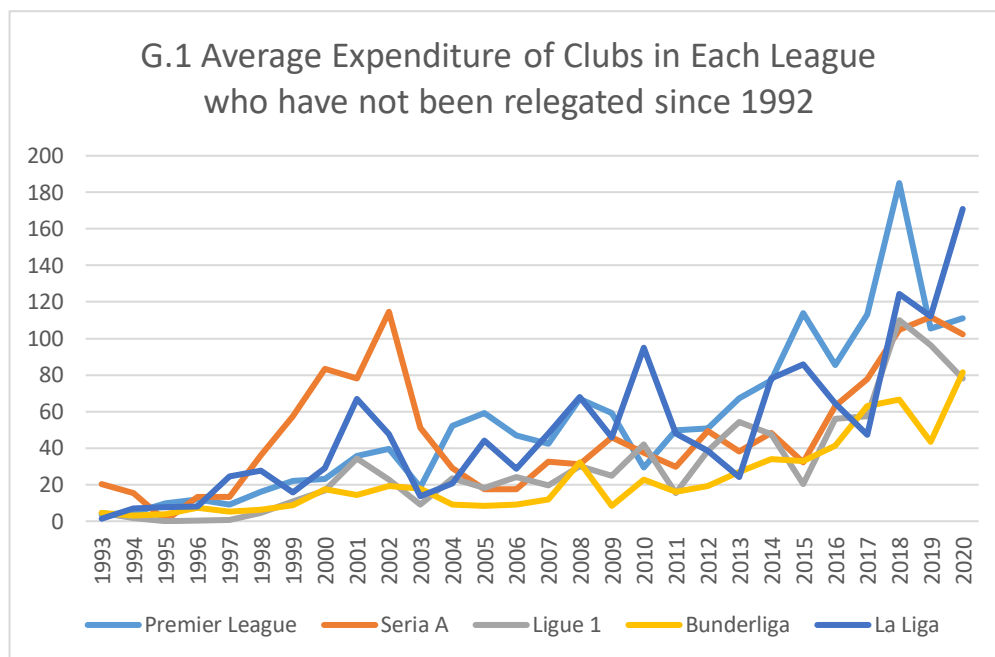
Year	Overseas Revenue (£, M)
1992/1993 - 1996/1997	40
1997/1998 - 2000/2001	98
2001/2002 - 2003/2004	178
2004/2005 - 2006/2007	325
2007/2008 - 2009/2010	650
2010/2011 - 2012/2013	1437
2013/2014 - 2015/2016	2230
2016/2017 - 2018/2019	3000

## Appendix G – Secondary Test for Price Increase

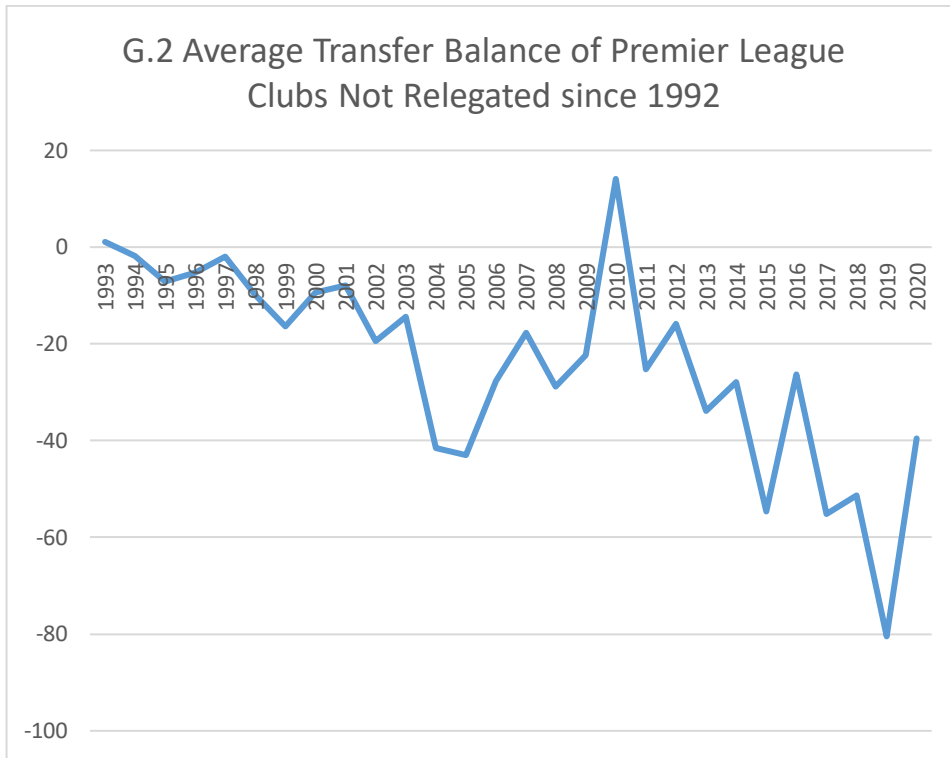
In order to ensure the reliability and validity of the results, the tests were redone using only clubs who have not been relegated from the Premier League.

Relegation distorts the sample as it causes the teams involved to change year on year.

Process of attaining data can be seen in Appendix E.



Other leagues are more competitive, but the Premier League is still quite significantly ahead. It should also be noted that the Premier League has also had the highest sample of clubs.



This graph loosely follows a similar trajectory to Figure 5.1.2. Therefore, it can be summarised that the data is both reliable and valid.