



Professionalisation and competitive balance in English men's elite rugby union 1995-2021

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Professionalisation and competitive balance in English men's elite rugby union 1995-2021

Eleanor Jayne Catlin

**A thesis submitted in partial fulfilment of the requirements of Sheffield Hallam
University for the degree of Doctor of Philosophy**

August 2022

Candidate Declaration

I hereby declare that:

1. I have not been enrolled for another award of the University, or other academic or professional organisation, whilst undertaking my research degree.
2. None of the material contained in the thesis has been used in any other submission for an academic award.
3. I am aware of and understand the University's policy on plagiarism and certify that this thesis is my own work. The use of all published or other sources of material consulted have been properly and fully acknowledged.
4. The work undertaken towards the thesis has been conducted in accordance with the SHU Principles of Integrity in Research and the SHU Research Ethics Policy.
5. The word count of the thesis is: 66,112.

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Abstract

This thesis determines the level of competitive balance in English men's elite rugby union since the sport turned professional in 1995. Academic literature surrounding the concept of competitive balance is vast, and significantly differs dependent on geographical location, the sport analysed, and the measurements used. However, very few publications have looked at the sport of rugby union and the games unique make up of individual factors that aim to increase competition.

The top three tiers of English men's rugby union have been analysed to understand competition at the elite level of the sport. Factors such as the salary cap, bonus points and playoffs have been scrutinised to determine their impact and contribution to the competitive nature of rugby union. The study utilises a mixed method approach to analyse these factors, among other variables, and reveals several findings. Firstly, calculations of the HICB index identifies all three leagues analysed have become more competitive since the professionalisation of the sport in 1995, yet there are still improvements required in the leagues to ensure fair and equal opportunities. Furthermore, the transition between the Premiership and Championship does not aid the competitiveness of the leagues. Instead, an externality is produced as an unintended consequence of promotion and relegation which has not yet been addressed by league organisers. Finally, quantitative analysis within this study concludes 93.3% of Premiership league places are unaffected by the inclusion of bonus points in the league, a percentage that increases to 99.4% in the Championship. It is therefore proposed that this system requires reconsideration to maximise the use of this competition strategy.

The contribution to knowledge of this thesis is the addition of qualitative input in a predominantly quantitative field. The qualitative analysis provides real-life application of the quantitative findings. In addition, this thesis has extended our understanding of competitive balance in leagues below the topmost tier of English men's rugby union.

Publications and conferences

Conference Outputs

CATLIN, Eleanor, PLUMLEY, Daniel and WILSON, Robert. (2019). *Competitive balance in professional team sports: A systematic review*. 27th Conference of the European Association for Sport Management. Seville, Spain.

CATLIN, Eleanor. (2022). *Competitive balance in men's rugby union: Will the game ever be fair?* Nottingham Trent University, School of Science and Technology Research seminar.

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List of Abbreviations

This thesis utilises abbreviations throughout as a means of convenience to the writer and reader. These are detailed below in alphabetical order along with the appropriate full title.

ACB – Analysis of Competitive Balance

ASD – Actual Standard Deviation

AFL – Australian Football League

BP – Bonus Point

HHI - Herfindahl-Hirschman Index

HICB - Herfindahl Index of Competitive Balance

ISD – Ideal Standard Deviation

MLB – Major League Baseball

NBA – National Basketball Association

NFL – National Football League

NHL – National Hockey League

NL1 – National League One

RFC – Rugby Football Club

RFU – Rugby Football Union

RSD – Relative Standard Deviation

RUFC – Rugby Union Football Club

UOH – Uncertainty of Outcome Hypothesis

Chapter One

Introduction

1.1 Context and Rationale

In 2007, Humphreys and Maxcy recognised sport economics as a new and developing academic field evolving from traditional economics working in labour, urban and industrial economies. Humphreys and Maxcy (2007) further identify the founding of the 'Journal of Sports Economics' in 2000 as the beginning of formal recognition of the discipline. Now, twenty years on, the 'Journal of Sports Economics' is the "most influential journal devoted specifically to this rapidly growing field" (Sage Publications, n.d.) and sport economics has become well embedded within academia.

Many aspects of sport and economics are interconnected. Sport is becoming a more influential focus in economic literature, with economic theory being developed through the lens of many sporting disciplines. Sport has seen a commercial boom over recent years raising competition not just between teams or leagues but also between individual sports (Neale, 1964). In addition, the promotion of economics in sport has seen publications, not only in academia, but books and films such as 'Moneyball' and 'Soccernomics' engaging a wider audience in this emerging market.

Downward, Dawson & Dejonghe (2009) highlight the specific relationship between economics and professional team sport. Money is exchanged throughout the production, distribution and consumption of sport around the globe; by the way players are obtained and allocated, the purchase and sale of players and through gate, television and wider broadcasting revenues generated by sport itself. In a model of perfect competition, the sport league can be viewed as the market producing the output of sporting contest. For example, fixtures, with individual teams or clubs within the league being viewed as firms within the industry (Downward, Dawson & Dejonghe, 2009). Additionally, fans who pay to watch games highlight the demand in the industry and act as the consumers to the sport. This differs to usual business practise found in industry's where monopoly of the market power is seen as the goal and competitive collaboration would violate most antitrust laws.

Professional sport leagues possess three important characteristics that distinguish them from other industries. First, they are allowed to engage in business practices that, by law, are not allowed in other industries (Rockerbie, 2009). Second, in typical business markets, labour markets are less restrictive than those found within a sport league;

however, the latter is often more lucrative. Finally, a single team in the professional sport industry, cannot survive without the presence of other teams. The central theme that characterises sport economics is that competing teams must compete and co-operate (Neale 1964) to ensure a meaningful match is produced.

Competitive balance in sport has received considerable attention from academics across a range of disciplines and is perhaps the most extensively studied topic in sport economic literature. More specifically, articles analysing competitive balance in professional team sport have been published across all corners of the globe, although the core of the literature remains of greatest interest in North American and European sport (Rottenberg, 1956; Butler, 1995; Kesenne, 2007; Andreff, 2011; Hogan, Massey & Massey, 2017; Carreras & Garcia, 2018). The proliferation of academic competitive balance content has naturally led to many different definitions of competitive balance. Perhaps the most simplistic version is that from Owen (2013), who suggests that competitive balance relates to how evenly teams are matched. Alternatively, Humphreys (2002) explains how competitive balance reflects the uncertainty about the outcomes of professional sporting events.

At this point in the literature, two distinctive elements of competitive balance arise: the uncertainty of outcome and the analysis of competitive balance. From what is identified as his seminal publication, Simon Rottenberg (1956) identifies the concept of the uncertainty of outcome hypothesis acknowledging that fan interest is higher in a game between evenly matched teams, than between teams with different abilities. Alternatively, the analysis of competitive balance suggests theoretical application on competitive balance over time or as a result of changes in the business practices of professional sport leagues (Fort and Maxcy, 2003). It is by understanding these two distinctive strands in literature that a definition of competitive balance can be provided:

Competitive balance refers to balance between the sporting capabilities of teams. It includes a concept known as the uncertainty of outcome suggesting that the more unpredictable score lines are, the more attractive the league is. Specifically, it is the situation in which no one club/team competing within a league has an unfair advantage.

There is mostly widespread belief among academic studies that sport leagues will be more successful the greater the degree of competitive balance (Sanderson, 2003; Szymanski & Kesenne, 2004; Hogan, Massey, & Massey, 2018). Traditionally, it is argued that the organiser of a sport league prefers more competitive balance to the level that emerges in a noncooperative equilibrium (Skymanski & Leach, 2006). Without uncertainty and competition within leagues, the outcome of individual matches and league championships become predictable. Michie and Oughton (2004) identify that an unbalanced league presents risks such as bankruptcy, lagging clubs, loss of spectators long term and threat of rival leagues.

This argument has been used to justify controlling factors embedded into sport leagues to affect the competitive balance of a given league. Utilised more so in North American team sport, influences such as the salary cap, revenue sharing, the reserve clause and playoffs aim to create a balanced competition. In another important dichotomy, competitive balance must also consider a closed, static league like those in North America, and competitive balance in open leagues with promotion and relegation like those in Europe (Humphreys & Watanabe, 2012).

The literature on competitive balance is large and contentious (Humphreys & Watanabe, 2012), largely due to the differentiating factors affecting competitive balance but also because of disagreements about how to properly measure it. Zimbalist (2002, p112) identifies “there are almost as many ways to measure competitive balance as there are to quantify the money supply”. Variance measures of competitive balance were the first to appear in economic literature as a natural measure for the distribution of wins within a sport league. However, over the past twenty years, many more have been considered: Eckard (1998) developed an ANOVA based approach to measuring competitive balance, Humphreys (2002) developed the competitive balance ratio (CBR), the Herfindahl-Hirschman index (HHI) has been applied from the industrial-organisation academia and Fort and Quirk (1995) introduced the Gini coefficient, to name just a few. Competitive balance can be measured over the course of a single season, or over multiple seasons and wins can be defined as games, postseason appearances, or season championships. All of these factors and measures combined, make it extremely difficult to quantify competitive balance.

The concept of competitive balance is one that has been extensively studied in North America, particularly the four major sport leagues. However, little attention has been given to the sport of rugby union. Rugby union has only operated as a professional sport for a comparatively short period of time compared to other sports such as football. In 1995, World Rugby declared the game as 'open' and officially identified the professionalisation of the sport. Over twenty-five years on, rugby union is still some way behind the sport of football yet, recent sporting events including the rugby World Cup and Six Nation tournaments have seen a growth in ticket sales, estimated audience figures and derived player uptake. Now, rugby union has 500,000 regular players, 1,900 rugby clubs and a volunteer network of more than 100,000 people (England Rugby, 2020).

The concept of competitive balance identifies factors that affect the professional sporting landscape in an effort to maintain a sense of competition in the industry (Neale, 1964). Rugby union, however, embed a number of these factors into their league structure and therefore provide a unique sport to consider. Rugby union employ promotion and relegation (Noll, 2002) and a salary cap (Dietl, Lang & Rathke, 2011) as often seen in sports across the globe. However, alongside these, they also use a bonus points system, not seen in other sports, therefore creating an opportunity to explore how all three of these factors contribute to the competitiveness of the game.

What is important to consider throughout this thesis is the critical nature of this research. A large portion of the literature strives for competitive balance and promotes perfect competition within a sport league (Fort and Quirk, 2010). However, it is important to consider the alternative. It must be recognised what is meant by a 'competitively balanced' league and if rugby union has the desire to strive for this output. Existing literature on English rugby union is limited to three publications: Williams, 2012; Hogan & Massey, 2018; Hogan, Massey & Massey, 2013; ultimately highlighting a definite gap in literature on this topic area. To further this, no competitive balance study has used a multi-method approach to collecting results, and instead, test competitive balance using statistical data with a quantifiable measurement. This research therefore aims to fill the gap in literature and contribute to the knowledge by integrating a mixed method methodology.

1.2 A Plan for the Thesis

Firstly, the insufficient research into rugby union brings about a challenge with this research from the outset:

- How do you measure competitive balance in rugby union?
- Does rugby union already have a 'competitively balanced' status?
- Is competitive balance important in rugby union?

These questions highlight a critical nature of this research as if rugby union (players, organisers, club owners) do not desire to have a 'competitively balanced' status, then the research carried out will hold little importance. For this reason, a systematic review will firstly be undertaken to explore the context of competitive balance and more specifically how it is measured. As a literature review can be criticised for not being rigorous enough (Bower, 2010), a systematic approach will provide a comprehensive search of all potentially relevant articles and will use an explicit, reproducible criteria to answer the research question in a way that minimises bias. Brooks and McNeely (2013) identify a systematic review as a way of summarising the best available research within a given area therefore ensuring a fundamental basis for this thesis. A literature review will also be provided to further explain the unique nature of rugby union as a sport to further provide background knowledge for the thesis moving forward.

Next, quantitative data collection and analysis will allow the researcher to identify if rugby union is competitively balanced using twenty-five years of league data. Using league data from the top three tiers, and the measures identified in the systematic review, analysis can be undertaken to identify the current competitive situation of English rugby union. Arguably most importantly, there is a need to identify how this concept applies to the everyday practicalities of the sport. For this reason, unlike existing literature, this study adopts a mixed method methodology to ensure the relevance of this research. The quantitative data findings will be used to inform a qualitative data collection, underpinning the questions asked in a semi-structured interview. Through extensive analysis of the qualitative data, a comprehensive enquiry of competitive balance in English rugby union can be presented.

This thesis, exploring professional sport teams and leagues, provides an opportunity to assess the relationship between sport and economics using English men's rugby union as a case study example throughout. The contribution of this thesis will firstly fill a gap in literature that only three publications have ever explored; of these three, none have considered the first twenty-five years of professionalisation for English rugby union. The second contribution to knowledge is the qualitative study. No competitive balance study has developed the theory into a practical output for the sport, fundamentally assessing the need for research in this area.

1.3 Aim and Objectives

1.3.1 Aim

- To measure competitive balance, from 1995-2021 (25 league seasons), for men's rugby union in the top three elite leagues in England; the Premiership, Championship and National League One.

1.3.2 Objectives

- To identify the gap in competitive balance literature through a systematic literature review
- To identify the most effective measures for competitive balance when analysing English rugby union
- To analyse competitive balance using quantitative and qualitative methods
- To inform future policy decisions regarding league structure and composition and regulatory practices

1.4 Overview of the Thesis

The structure of this research thesis consists of seven chapters. The first of these seven chapters provides a comprehensive systematic review of the existing literature to ensure a fundamental grounding of the thesis. This chapter is followed by a narrative literature review and an introduction to English rugby union to confirm a thorough understanding of the area of study before progressing onto the remainder of the work.

Chapter five details an extensive methodology chapter identifying the research philosophy, research approach and the research strategies of the thesis. The methodology justifies the approaches taken in this thesis as well as presenting the key processes, allowing the study to be replicated at a future date along with confirming reliability and validity of the research. Following on from this, chapter six presents the results and discussion of the thesis with relevant references to the findings of the literature review. This chapter utilises both quantitative and qualitative measures confirmed in the methodology to present statistical findings and their 'real world' application to English men's rugby union. The quantitative findings are firstly discussed in depth before results are triangulated with qualitative discussion arising from interviews with stakeholders within the game. This therefore takes the findings from the quantitative study and questions its meaning on the game through conversations with those embedded into the everyday operations of rugby union. Finally, chapter seven concludes the thesis identifying key findings and policy suggestions. The overall contribution to knowledge is discussed and final conclusions of the thesis are provided.

Chapter Two
Systematic Review

2.1 The Introduction of a Systematic Review

Undertaking a literature review is a fundamental aspect of any research project. It provides a “systematic, explicit, and reproducible method for identifying, evaluating, and synthesising the existing body of completed and recorded work produced by researchers, scholars, and practitioners” (Fink, 2005, p3). A literature review allows the researcher to map and assess literature deemed relevant to the subject area (Tranfield, Denyer and Smart, 2003). However, the traditional approach to a literature review is often critiqued (Bem, 1995; Tranfield et al, 2003). Bem (1995) suggests academics approaching a literature review are at risk of producing ‘mind numbing’ lists of citations. Additionally, Tranfield (2003) highlights a lack of thoroughness and investigatory science in the traditional approach and adds that the literature review can often reflect bias by the reviewer who gathers and interprets the study. Instead, academics offer a systematic review as a means of a solution.

Many authors have argued the importance of a systematic review (Mulrow, 1994; Hammersley, 2001; Booth, Sutton & Papaioannou, 2016). Booth, Sutton and Papaioannou (2016, p11) suggest “the best evidence for many decisions, comes from a systematic review of *all* the evidence”. Mulrow (1994) supports this and identifies that by reviewing the literature via a systematic review, it enables the researcher to search for the whole truth, rather than just a small part of it, and is thus a “fundamentally scientific activity” (Mulrow, 1994, p597). The reviewer uses a specific and replicable method to identify and appraise studies of a previously agreed level of quality that are specifically relevant to the research topic area. Although inherently grounded in the medical sciences (Geddes, 1998; Egger, Smith & Altman, 2001), most of the literature in the field of sport management agrees a systematic review to be a justified approach to research.

Hammersley (2001) queries the need to specifically identify a systematic approach to research by questioning ‘who would want reviews to be unsystematic?’; instead, identifying the importance of simply reviewing the literature ‘properly’. However, Booth, Sutton and Papaioannou (2016) emphasise the importance of a systematic research approach, as opposed to the traditional narrative approach, due to its increased reliability, accuracy and quality of conclusions being clearly aligned to the scientific method. A systematic review addresses many problems aligned to the

traditional narrative approach to a literature search such as the misuse of existing research, the overuse of limited or inconclusive findings and the under use of research evidence (Booth, Sutton and Papaioannou, 2016). The results of a systematic review therefore are often unequivocal due to the rigour of the process.

The nature of the field of sport management research has been subject to considerable analysis and discussion; much of which has focused upon the ontological status of the field (Skinner and Edwards, 2005; Shaw & Hoeber, 2016; Bodin, Teare & Taks, 2022). For this reason, the appropriateness of a systematic review in this field of social science is questioned. Systematic reviews have traditionally been applied in fields and disciplines privileging a positivist and quantitative tradition (Tranfield et al., 2003). Furthermore, researchers from an interpretivist position argue that a systematic review should not be adopted in the social sciences. In fact, not everybody accepts that systematic reviews are necessary or desirable (Petticrew, 2001) and to further this Booth et al., (2016) argues that the process is outdated. However, due to the philosophical underpinnings, quantitative outlook, and attempt to find a gap in the literature, for this thesis, a systematic review is justified and will be viewed as a logical sequential series of steps. Table 1 below identifies key stages of a traditional systematic review identified by Tranfield et al., (2003).

Table 1: Stages of the Systematic Review.

<u>Stage</u>	<u>Phases involved</u>
Stage 1	Planning the Review <ul style="list-style-type: none">• Form a review panel• Identification for the need of a review• Preparation of a proposal for a review• Development of a review protocol
Stage 2	Conducting a review <ul style="list-style-type: none">• Identification of research• Selection of studies• Study quality assessment• Data extraction and monitoring progress• Data synthesis
Stage 3	Reporting and Dissemination <ul style="list-style-type: none">• The report and recommendations• Getting evidence into practice

2.1.1 Stage 1: Planning the Review

Booth et al., (2016, p55) explains that “a literature review should be planned and managed just like any other research project”. The initial stages of a systematic review may be an iterative process of definition, clarification, and refinement (Clarke and Oxman, 2001). A review panel is formed prior to undertaking the review with all efforts to ensure a wide range of experts from within the field of study and should contain regular meetings to specify the inclusion and exclusion criteria of the studies. As the decision of inclusion and exclusion can be a relatively subjective process, it is important the panel is closely involved throughout. Additionally, both the reviewer and the panel should consider the elements of both time and quality to ensure the highest possible output (Booth et al., 2016). Within sport management, it is necessary to conduct a scoping study to assess the relevance and size of the literature and to delimit the subject area or topic. Such studies need to consider cross-disciplinary perspectives and alternative ways in which a research topic has previously been tackled (Tranfield et al., 2003); for this reason, a scoping study has been included within this thesis. The process

will be documented in sufficient detail to enable the study to be replicated by others and increase reliability.

2.1.2 Stage 2: Conducting a Review

It is important to identify keywords and search terms highlighted within the scoping study. From here, the keywords and themes can be categorised to form search strings most appropriate for the thesis. Whilst most institutional libraries hold a collection of key journal and book resources, alternative electronic databases are required. Searches should also comprise of unpublished studies, conference proceedings and other reputable information sources. However, only the literature that meets all inclusion criteria specified in the review protocol will be incorporated into the review due to the desire to base reviews on the best-quality evidence. The data-extraction process requires a documentation of all steps taken which aims to provide a historical record of decisions made during the review process. This data extraction phase is often employed to reduce human error and bias (Tranfield et al., 2003).

2.1.3 Stage 3: Reporting and Dissemination

A good research synthesis frequently highlights weakness in the evidence and argues for further research (Booth et al., 2016). Additionally, a good systematic review should make it easier for the researcher to understand the research by synthesising primary research papers from which it was derived (Tranfield et al., 2003). For this particular research project, this was done in two parts. Firstly, a systematic scoping study was conducted to establish the literature already published in the field of sports management. Secondly, a full systematic review was undertaken to provide foundations in the field of both sport management and sport economics in which to build the methodology for the thesis.

Dissemination is a planned and active process that can aid the transfer of research into practice. Simply making the research available does not ensure that those who need the information have access to it. Therefore, when reporting findings, dissemination is a crucial part of the review process that should be considered from the outset.

2.2 The Systematic Review Process

The review process has a number of stages to provide an appropriate appraisal and synthesis of primary literature on the topic area. The following sections provide an outline of this how this process was implemented for this thesis.

2.2.1 Step 1: Forming a Review Panel

The members of the review panel were selected based on their experience in areas relevant to the topic and due to their involvement in the PhD process. The panel members are as follow;

- Robert Wilson (Director of Studies)
- Daniel Plumley (Supervisor)
- Jo Dobson (Learning and IT Services)
- Eleanor Catlin (PhD Author)

To ensure appropriateness and reliability, the systematic review was discussed in several meetings with at least two of the panel members being present at any one meeting. During these meetings, the overall aim of the systematic review was identified, key search terms were discussed, and practicalities of the systematic review were assessed.

2.2.2 Step 2: Mapping the Field of Study

To ensure a broad perspective of the field of study, a series of 'scoping studies' were completed providing opportunity to identify key concepts, gaps in the research and the aims and objectives for this study going forward. This highlighted the importance of examining literature not just in English rugby union but more broadly, in professional team sport worldwide. For the purpose of this study, four 'scoping studies' were conducted. The search strings were entered into the institution database (Sheffield Hallam's Library Gateway) and then filtered in regard to academic relevance, time frame, language, length and subject to a number of key search terms identified as relevant by the reviewer. The four conducted searches were as follows:

- Economics in sport
- Competitive Balance in sports economics
- Competitive Balance in professional team sports

- Competitive Balance AND economics AND professional team sports

The decision to conduct four scoping studies in a systematic manner was to obtain as much relevant literature as possible on the topic and reduce bias within the review. The high duplication of articles within different searches meant that if this thesis were to be conducted again, similar results would be obtained. The four 'scoping studies' undertaken and the criteria for inclusion are outlined in table 2.

Table 2: Scoping Study Search for Systematic Review

Search Number	Date of Search	Title	Parameters	Publication Date	Search Results
1	05/11/2018	Economics in sport	<ul style="list-style-type: none"> • Limit to articles from scholarly publications • Exclude newspaper articles • Items available online 	1956-present	48,071
2	05/11/2018	Competitive Balance in sport economics	<ul style="list-style-type: none"> • Limit to articles from scholarly publications • Exclude newspaper articles • Items available online 	1956-present	12,943
3	05/11/2018	Competitive Balance in professional team sport	<ul style="list-style-type: none"> • Limit to articles from scholarly publications • Exclude newspaper articles • Items available online 	1956-present	14,577
4	05/11/2018	Competitive Balance AND economics AND professional team sport	<ul style="list-style-type: none"> • Limit to articles from scholarly publications • Exclude newspaper articles • Items available online 	1956-present	4,280

Upon completion of the scoping study, 79,871 articles were identified in relation to their relevance to the subject area. Whilst some of these were duplicates, it became apparent to the reviewer that the database was returning an un-workable number of articles for this specific thesis. This ultimately confirms the rationale for conducting a scoping review and that conducting this in a systematic way was the right approach. It became

clear that a more extensive search was needed to be carried out with a more rigid approach. This allowed the reviewer to alter the search strings to narrow down the broader search and produce a more comprehensive and workable number of relevant articles. As such, the review subsequently focused on step three of the systematic review process and developed a review protocol based on specific search strings which allowed the author to narrow the field of relevant literature. In addition, as the primary focus of this thesis, the wording of 'competitive balance' moved to include quotation marks to filter out unnecessary results and to ensure exact results on the thesis topic area.

2.2.3 Step 3: Developing a Review Protocol

The process of constructing a more in depth and defined literature review began with outlining a number of key search strings which relate specifically to the topic of this thesis. Table 3 identifies the databases in which the search strings were run, the search strings used and the number of hits by the individual databases for each string. At this point, the university library (Library gateway) was still returning a high volume of publications due to it returning both academic and non-academic sources. For this reason, the library gateway was removed completely from the study and the research instead found relevant information from five other search engines. The academic items from the library gateway would be picked up by the five other search engines ensuring no relevant publications had been missed. Similarly, the first search string 'Economics AND sport' also returned a significant number of results and therefore this was too discounted; these are highlighted in the table below (3) by italics and underline fonts in both the first column and row of numbers. In addition, column one is not totalled for this process due to this reason of elimination. The use of "competitive balance" in all search strings provides a constant to always ensure relevance and consistency throughout and therefore justifies the discarded figures. The way in which the literature searching tool filters information indicates that whilst there is a constant search term (competitive balance) the same results would be found in all searches.

Table 3: Systematic Search Strings.

	<u>Library Gateway</u>	<u>Business Source Premier</u>	<u>Sport Discuss</u>	<u>Scopus</u>	<u>Emerald Insight</u>	<u>Web of Science</u>
<u>Economics* AND sport</u>	<u>274,510</u>	<u>1</u>	<u>14,779</u>	<u>7,811</u>	<u>12,190</u>	<u>753</u>
<u>"Competitive Balance" AND economics</u>	<u>1,941</u>	163	150	76	63	69
<u>"Competitive Balance" AND economics AND sport</u>	<u>928</u>	124	140	65	42	65
<u>"Competitive Balance" AND economics AND team sport</u>	<u>850</u>	71	38	40	40	53
<u>"Competitive Balance" AND economics AND professional team sport</u>	<u>748</u>	13	17	24	39	38
<u>"Competitive Balance" AND economics AND professional team sport AND America*</u>	<u>609</u>	6	4	4	31	4
<u>"Competitive Balance" AND economics AND professional team sport AND Europe*</u>	<u>476</u>	5	3	4	33	10
<u>Total</u>		382	352	213	248	239
<u>Overall Total</u>	<u>1,434</u>					

The 1,434 articles returned by this database search were then input into the referencing software package Refworks for further analysis. The results were organised into specific folders for each individual database. Next, within each database duplicates were extracted. This was followed by extraction of articles across all databases to provide a

total number of unique articles including the term ‘close duplicates’ to account for differences in wordings between databases. Table 4 charts this process, identifying how many publications were deleted for these reasons and the final number of articles examined.

Table 4: Article Selection Process

Databases	Business Source Premier	Sport Discuss	Scopus	Emerald Insight	Web of Science
Total	382	352	213	248	239
Delete Duplicates	162	132	33	67	60
Total	468				
Total returns minus duplications across search engines	153				
Review by Panel based on titles and appropriateness	114				
Final Figure	<u>114</u>				

As identified by table 4, 382 publications were returned by search engine Business Source Premier. However, many of these were either duplicates of the same paper or ‘close duplicates’ identified by the researcher to the 352 found within Sport Discuss, the 213 found within Scopus, the 248 found within Emerald Insight and finally the 239 publications found from Web of Science. For this reason, these duplicates were deleted across all databases bar Business Source Premier. Once all duplicates from individual

search engines were removed, a total of 468 publications were closely scanned by the reviewer.

Whilst exact duplicates had already been removed from the databases, it was quickly noted that different search engines had identified similar publications; for example, the same article but written in a different language. For this reason, the reviewer manually deleted any similar publications or 'close duplicates' between the five search engines. Once this had been completed, this left a total of 153 publications for review.

To further this process, these articles were filtered by the PhD candidate and both members of the supervisory team where agreements were made on the appropriateness of articles based on their title and abstract. Papers were printed and individually looked at before a meeting was held to determine those that would be excluded and those that would be carried forward into the literature review. This meeting developed the decision not to include North American literature including 'college' sports due to the uniqueness college sport offers through its structure and professionalism. The result of this meant 39 articles were excluded on this basis. Finally, a total of 114 publications remained and were thoroughly read for inclusion in the literature review.

2.3 Reporting the Findings

Competitive balance in sport has received considerable attention from academics across a range of disciplines and is perhaps the most extensively studied topic in sport economic literature. More specifically, competitive balance in professional team sport sees publications from all over the world with particular interest from North American and European academics.

Simon Rottenberg's seminal article (1956) in the *Journal of Political Economy*, is generally accepted as the starting point for the development of academia in sport economics. Although arguably more aligned to pure economic principles, Rottenberg recognised sport leagues to have similar market principles as a conventional industry business. As a result of this, Rottenberg's paper has been the foundations for the increased number of publications over the past 60 years in the economics of sport and more specifically, competitive balance literature. The literature on competitive balance

is large and contentious. Discussions about how to 'properly' measure competitive balance and the specific focus of the research area has brought about many disagreements in the academic field. However, whilst many authors hold different perspectives, reoccurring themes stem throughout competitive balance literature ranging from the methodology to the characteristics of competitive balance and its overall impact on sport. Most competitive balance research focuses on professional team sport leagues however, research has also been applied to none professional sport, individual sports and significant sporting events.

The focus of this chapter is to systematically and comprehensively review competitive balance literature in professional team sport leagues. The key outputs of the findings have been grouped and categorised based on the existing literature and existing reoccurring topic areas. The next part of this chapter will consider the themes and encompass the literature within these individual areas. These themes are listed below:

- Characteristics of competitive balance
- Uncertainty of outcome hypothesis
- Analysis of competitive balance
- Measuring competitive balance
- Territory specific competitive balance

Finally, this chapter will go on to discuss the factors that affect competitive balance throughout the range of sports that have been covered in the existing literature.

2.3.1 Characteristics of Competitive Balance

Fort and Maxcy (2003) suggest there are two distinctive strands of competitive balance: studies that investigate the relationship of competitive balance, attendance, and business practices and those that concern themselves with the measurement and the analysis of competitive balance. In the literature this is identified as the Uncertainty of Outcome Hypothesis (UOH) and the Analysis of Competitive Balance (ACB). Although this is opposed by Lenten (2009) who suggests more than two streams in an attempt to categorise these themes into a short, medium and long-term approach, both UOH and ACB are highly recognised concepts in the theory of competitive balance and are widely used by many academics, such as Humphreys (2003), Forrest, Simmons & Buraimo

(2005), Eckard (2017) and Wilson, Ramchandani & Plumley (2018). Both UOH and ACB contributions are important to our understanding of the relationship between league behaviour, competitive balance, and fan behaviour. ACB literature specifically focuses on how competitive balance has changed, developed, or affected the business practices of professional sports leagues over a period of time whereas, the UOH element of competitive balance, analyses the effect on fans during a given season.

2.3.2 Uncertainty of Outcome Hypothesis

More than sixty years on from Simon Rottenberg (1956) writing his seminal article, in which he first articulated UOH, it still remains a significantly influential component of competitive balance. The theory argues that fan interest would be higher in a game between evenly matched teams than between two teams with different abilities. This would therefore lead to a higher demand for tickets and consequently higher revenues for sport teams and leagues. A similar interpretation is put forward by Zimbalist (2002) who argues that the importance of competitive balance is derived from the assumption that fans have a strong preference for outcome uncertainty. Thus UOH implies that a decline in competitive balance in a league will cause fan interest to diminish for perennially losing teams but also that interest in winning teams will eventually decline as well (Young, 2009).

UOH analysis therefore attempts to discover the impact of competitive balance and the implications this has on fan behaviour. It is argued that the dominance of one or a few teams within a sport league, could lead to a lack of interest and attractiveness for the clubs. For this reason, many sport associations have created rules and regulations to increase competitiveness within the league including salary caps, revenue sharing and drafting systems. Although these regulations are predominantly used within North American professional team sports, variations of these regulations are implemented in sports worldwide (Feddersen & Maennig, 2005).

Almost all published studies within this area relate to gate attendance as a way of measuring fan attendance to assess UOH. Whilst gate attendance is one acceptable measure, literature in this specific area fails to account for the ever-changing environment sport sits within. Gate receipts are not the only way a fan can view a game. Broadcast games are an increasingly important factor in the overall appeal in

professional sports worldwide and will therefore need to be considered when studying UOH in the future.

Many academics have further analysed the concept of UOH to include three forms of uncertainty of outcome. Cairns, Jennett, and Sloane, (1986) identify a short run uncertainty of match outcome, a medium or seasonal term uncertainty of outcome, and a long term (dominance over several seasons) uncertainty of outcome which is also referred to as dynamic competitive balance. Used by many other authors (Szymanski, 2001; Schmidt & Berri, 2003; Hogan, Massey & Massey, 2017) these three forms are primarily used to define a specific area of UOH for analysis and will significantly differ dependant on the sport, geographical location and the purpose of the research.

Zimbalist (2002) highlighted the importance of the link between competitive balance and fan interest in sport and further suggests that UOH should be the primary focus of competitive balance research. However, although many academics (Bowman, Lambrinos & Ashman, 2013a; Manasis & Ntzoufras, 2014; Andreff & Scelles, 2015) have found a direct relationship between outcome uncertainty compared with fan attendance and behaviour, there is no need to argue that one line of competitive balance analysis is more important than the other (Fort & Maxcy, 2003). In fact, more recently there has been a significant increase in literature surrounding ACB since the publication of Zimbalist's (2002) special issue providing 'an introduction' to competitive balance.

Fort and Maxcy (2003, p158) state that "ACB and UOH analysis are actually (weak) complements" and therefore no one line of analysis is more important than the other. Their argument suggests that changes in one component of analysis will have an impact on the other. Changes in competitive balance discovered by ACB analysts suggest that some changes in balance may represent especially important episodes for UOH analysis. However, UOH analysis may also find that significant changes in fan preferences toward competitive balance have occurred even if ACB analysis reveals that competitive balance has remained unchanged.

2.3.3 Analysis of Competitive Balance

ACB theory suggests the application of competitive balance over time or as a result of changes in the business practices of professional sport leagues. Fenn, Allmen, Brook and Preissing, (2005) state the importance of being able to define, measure and track competitive balance and its effect on the business of sport leagues and go on to suggest that it is in the interest of the leagues to alter competitive balance if appropriate. The ACB literature includes a much shorter publication list than that of UOH. However, as identified above (page 23), literature examining ACB has seen a significant increase since 2002. This may be due to Zimbalist's 2002 special issue on competitive balance which received a reply publication from Fort and Maxcy (2003) creating a form of debate. Here, Fort and Maxcy (2003) identifies this significance of including ACB analysis in work undertaken on competitive balance.

ACB has been applied to an increasing number of sports around the world (for example: Judde, Booth & Brooks, 2013 – Formula 1; Read, Smith & Skinner, 2021 – Rugby League; Ramchandani, Plumley, Boyes & Wilson, 2018 – Football). Much of this literature focuses on the development of new measures of competitive balance and its application to a specific professional team sport to examine the effect of changes in league policies on competitive balance. Also, many publications use the invariance principle, first identified by Rottenberg (1956), in order to test before and after league policy changes are made and therefore attempt to find the impact of the change in policy. However, this is not the only measure and for this reason, many publications test different sports using different methods causing huge variety across ACB literature.

Critiques of this analysis identify a disregard of fan welfare and behaviour within the method. However, "although the issue of fan welfare is outside of ACB analysis, it is not an issue that invalidates the ACB approach" (Fort & Maxcy, 2002, p157). This emphasises the importance of considering both the UOH and the ACB approaches when analysing competitive balance though, a combined approach does not fully replace the independent measures. For example, from a policy perspective, it may be important to be able to differentiate between, and assess, the two aspects of competitive balance separately. It is usual that ACB literature will address either the impact of change in policy and how this has affected competitive balance or how a change in competitive

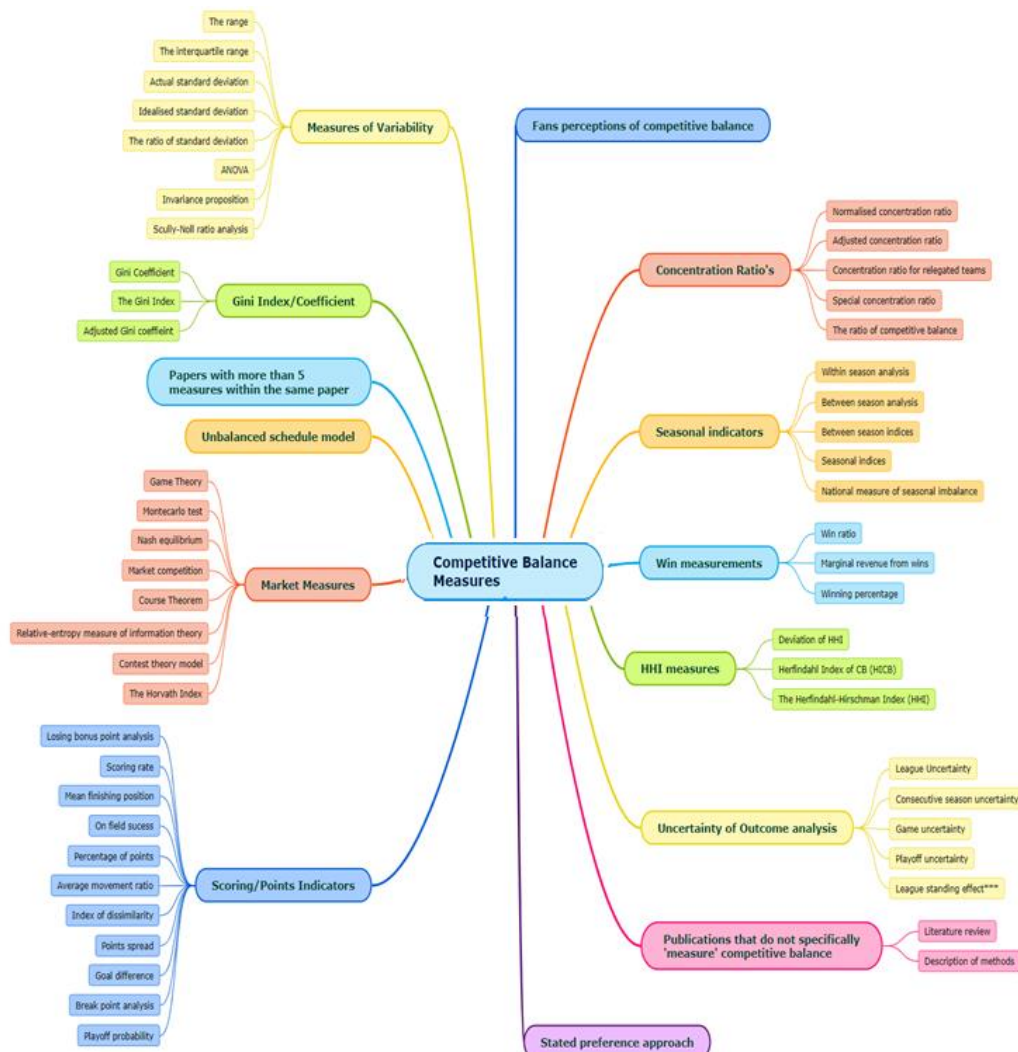
balance has impacted policy. Schmidt and Berri (2003) support this as they identify the 'free agency' policy change as a significant impact on competitive balance within the four major North American professional sport leagues: Major League Baseball (MLB), National Football League (NFL), National Basketball League (NBL) and National Hockey League (NHL).

Fort and Maxcy (2003) suggest that both the UOH and ACB research are needed for a complete understanding of competitive balance in sport leagues. Research into competitive balance is complex and therefore even if one academic argues a best measure for one league, it may not be the most appropriate measure for another. Only this two-pronged approach can enhance our understanding of the relationship between competitive balance and changes in the business approaches of leagues, and the importance of competitive balance to fans. Although it is not compulsory that both approaches are used to measure competitive balance within a piece of literature, it is essential both elements are understood and acknowledged in an academic's work.

2.3.4 Measuring Competitive Balance

There is no disagreement within competitive balance literature that there is a large quantity of measures to attempt to quantify competitive balance in professional sport leagues (Humphreys, 2002; Zimbalist 2002; Eckard, 2003; Bowman, Ashman & Lambrinos 2012; Francisco, & Antonio 2018). In fact, Zimbalist (2002) suggests there are almost as many ways to measure competitive balance as there are to quantify money supply. To exemplify the extent of measures, figure 1 below comprises a list of competitive balance measurement techniques utilised in the extensive list of papers covered within this systematic review (see section 2.2.3).

Figure 1: Competitive Balance Measures used in past research grouped by the author



As evidenced in figure 1, there are multiple ways to measure very similar outputs. For example, figure 1 identifies five ways to consider concentration ratios within competitive balance alone: normalised concentration ratio, adjusted concentration ratio, concentration ratio for relegated teams, special concentration ratio and the ratio of competitive balance. Different individual approaches are often used in combination with others but can also be used individually with no dispute.

2.3.4.1 Evaluating individual methods for its application to the thesis

Historically, competitive balance studies have relied on a standard technique used to quantify competitive balance by calculating the percentage of matches that each club wins in a season and to use the standard deviation of this to give a single figure for the

league (Quirk and Fort, 1997; Zimbalist, 2002; Michie and Oughton, 2004). This ‘actual’ standard deviation (ASD) is then compared to an ‘ideal’ standard deviation (ISD) based on the distribution of win percentages in a perfectly balanced league where each club has a 0.5 probability of winning each match (Michie and Oughton, 2004). The standard deviation of win percentages (SDW) can therefore be seen in the ratio below:

$$\frac{\text{Standard deviation of actual win percentages}}{\text{Standard deviation of win percentages in an ideal league}}$$

Where the denominator is given by;

$$\frac{0.5}{\sqrt{N}}$$

Where N is the number of games played by each team within the league structure.

The lower the value of SDW, the higher the balance of a league. Equally, the higher the value of SDW, the lower the competitive balance in the league. However, whilst many studies utilise this approach when analysing competitive balance, Michie and Oughton (2004) raise three relevant concerns with this measurement when considering European football. These three concerns are equally as relevant when looking at the topic of rugby union for this thesis.

1. The SDW is aligned to US sport leagues where individual games are unlikely to see a draw
2. The SDW does not take into account other ‘winning’ aspects such as which team is winning or if it is always the same group of teams that win
3. The SDW is not bound to lie within a range that is easy to interpret and therefore has little intuitive appeal

In addition, this method has also received criticism from Zimbalist (2002) as it only considers one element of competitive balance. Vrooman (1996) suggested more dimensions of competitive balance should be considered. The leagues studied within this thesis will consider leagues that see games drawn and will additionally attempt to identify groups of consistently performing teams. For this reason, the standard deviation of win percentages nor the actual standard deviation will provide the output required to progress in this study.

More recently, the literature identifies the relative standard deviation (RSD) as the most commonly used measure of competitive balance; more precisely, in the short run competitive balance literature (Downward, Dawson & Dejonghe, 2009). The standard deviation is a statistical measure of dispersion related to the mean as a measure of central tendency. Applied to a sport league, it provides a measure of the concentration of the teams in the league for a competition period. Calculating an actual standard deviation and comparing this to the relative and ideal standard deviation can provide a basic principle of comparison. However, what this measure, nor any other measure, cannot do is provide an optimal measure for all competitive balance measurements to compare it to.

For rugby union specifically, the commonly used measure of RSD should not be used as it is unable to compare levels of balance between leagues which differ in the number of teams. In the Premiership and Championship there are currently 12 teams in both leagues, however, there have previously been up to 16 in the championship and there is currently 16 in the National League One, meaning if the RSD were to be utilised, accurate data would not be formed.

A third commonly used measure of competitive balance is the Herfindahl-Hirschman Index (HHI) often used to characterise the distribution of a variable by measuring its degree of concentration across firms or teams. The HHI is a commonly accepted market measure of concentration and is therefore underpinned by typical business activity of non-sporting industries. When applied to sport, Owen, Ryan and Weatherston (2007) suggests that the HHI has been applied to the distribution of wins across teams in a given season in order to interpret market share. However, Humphreys (2003) and Eckard (2001) identify that a requirement of the HHI index is stability in the league conformation. As will be noted in Chapter 4 of this thesis, rugby union has seen many drastic changes since its professionalisation in 1995 and therefore, this measure is not deemed an appropriate fit.

Throughout previous literature, regardless of the measure, it is apparent that the theory strives for perfect competition within a given sport league where no one team has an unfair advantage over others. However, several authors have challenged the assumption that perfect competitive balance is optimal (Fort and Quirk, 2010) and

suggest that the optimal level of competitive balance is crucial (Dietl, Grossmann & Lang, 2011). Kesenne (2001) argues that complete equality is not needed and goes on to suggest that nobody likes to watch game after game if the league champion is known before the season is halfway over (Kesenne, 2001). Instead, what is widely acknowledged is that greater competitive balance is in the best interests of sport leagues (Bowman, Ashman & Lambrino, 2013a). What is clear from the existing literature is that an optimal level of competitive balance does not exist within sports. In fact, it may be that an optimal value cannot be identified and instead focus should be on finding a 'best' or 'most competitive' value for a given league.

2.3.4.2 Summary Findings of Competitive Balance Measures

In an attempt to make sense of the huge number of measures in this field, table 5 provides an overview of the most predominantly used methods in the literature. These measures are grouped into concentration measures and dominance measures but more specifically, they are further aligned to which strand of competitive balance (see section 2.3) they have previously been used to analyse. If a study is to consider competitive balance through the theory of UOH, papers more commonly use standard deviation, HHI, Gini-coefficients, concentration ratios and ranges. However, if a publication focuses more specifically on ACB over time, previous studies more commonly use descriptive statistics, HHI, Gini-coefficients, Percentages and HICB – an adapted version of the HHI.

Table 5: A Summary of Methods used to Measure Competitive Balance across all Professional Team Sports.

Concentration Measures (Predominantly UOH)	Dominance Measures (Predominantly ACB)
Standard Deviation <ul style="list-style-type: none"> • Actual Standard deviation (ASD) • 'Idealised standard deviation' (ISD) • Relative standard deviation (RSD) 	Descriptive statistics <ul style="list-style-type: none"> • Number of top teams • Number of titles won • Failure to win league titles • Consecutive title wins
Herfindahl-Hirschman Index (HHI) – within one league season	Herfindahl-Hirschman Index (HHI) – across a number of seasons with the same number of teams
Gini Coefficient – within one league season	Gini Coefficient – across a number of seasons
Concentration Ratio <ul style="list-style-type: none"> • 'Attainable • Five club (C5 Ratio) 	Percentages <ul style="list-style-type: none"> • Win Percentage
Range <ul style="list-style-type: none"> • The interquartile range (QRANGE) 	HICB

As well as the differentiating strand to consider, much of the literature proposing measures of competitive balance have been applied to measure the four major sport leagues in North America. Whilst many of these measurements can be transferable to the European professional sport leagues, it is important to note that some of the measures are not applicable due to the distinct features of the two sport models; a concept that is further discussed in this chapter (section 2.4). Therefore, just because the Gini-coefficient is noted as a measure of ACB, does not mean it will be beneficial to use for every sport analysed in the future. In addition, and arguably most importantly, it is crucial to note that just because a measurement has been used previously to measure competitive balance, the literature makes no attempt to identify that any of these vast measures are more important than another. Even if one study argues a best

measure for one league, it may not be the most appropriate measure for another and therefore it is extremely unclear on which methods are most appropriate.

Although it is not compulsory that both UOH and ACB approaches are used to measure competitive balance within research, it is essential both elements are understood and acknowledged in any empirical work. It is identified that whilst UOH remains a key concept when considering competitive balance for the sport leagues, it is also essential to identify what factor holds higher value to the fans; the value that the game has higher uncertainty and each team has a chance of winning or losing, or, the value that fans would prefer to see their home team win. This latter theory ultimately disregards the idea of an uncertain outcome and therefore questions its relevance on competitive balance.

It is therefore appropriate to conclude that considerations are required on an individual basis when looking to measure competitive balance. Each sport league analysed should consider its geographical location (Section 2.4.1), previous measures and the strand of competitive balance wanting to focus on. In addition, section 2.4 investigates specific governance factors that may also add to the confusion of measuring competitive balance. What is clear, is that there is no exact measurement for competitive balance in previous literature and no publications has a 'one size fits all' model. Measurement of competitive balance is complicated by its multidimensional nature. Instead, future research must be carefully considered. Table 5 goes some way in narrowing relevant options which must then be specifically applied to the sport.

2.4. Factors Affecting CB

2.4.1 Territory Specific Competitive Balance

American professional team sport has dominated competitive balance literature over past decades, possibly due to the original concept of competitive balance itself being applied to MLB by Rottenberg (1956). Although the theory of competitive balance has been applied within European professional sport leagues, the majority of these publications focus solely on professional football in either England, Spain or Germany with only a few exceptions in other sports and other leagues. American literature covers

all four of its major sports leagues: MLB, NFL, NBL and NHL. Due to the differences in the rules and regulations between North American sports and European sports (which will be further considered in the below paragraph) comparative analysis in literature is extremely rare, and even when attempted, comparisons are unclear due to the impact of different factors and the way these are measured.

There is a dividing line between the North American closed league system in professional team sport and the European open league system in their approaches to competitive balance as well as their aims and objectives for their clubs as a business organisation. Unlike the North American sport league models where leagues are composed of a permanent roster of teams, European models have criteria for promotion and relegation in regard to on-field success. A primary difference between the two league structures includes the ability or inability to enter the league (Noll, 2002). North American professional sport leagues have a barrier to entry, created due to the system being franchise based which in turn creates an independent organisation with exclusive property rights for that area. A European league however, forms a hierarchical structure supervised by an international governing body. Entry into the North American closed league is ultimately only possible by a purchase of an expansion franchise or relocation of a franchise which must be approved by a majority of incumbent teams. In an open league however, entry relies on promotion and relegation. This is because an additional major league, in the same professional sport, in a given country, goes against international governing body law. European leagues characterisation of an open league is also aided by reduced property rights and free access to all market sides. Differences between a system of leagues with fixed membership and a promotion and relegation system is that “the latter permits a form of entry that is not feasible under the former” (Noll, 2002, p169).

Lenten (2011) presents the effect of an unbalanced schedule on competitive balance; a unique concept arguably unrecognised by other academics in the literature. An unbalanced schedule is where teams do not play each other the same number of times throughout a season. This model however, aims to squeeze an increasing number of games (due to expansion on the league) into the same season length meaning games are prioritised in regard to maximising attendances to generate revenue. For example, the Scottish Premier League utilises an unbalanced schedule. This scheduling allows the

“strongest teams in a given season to play each other an extra time *mutatis mutandis* for the weakest teams” (Lenten 2008, p1). Although not always, an unbalanced schedule is often more associated to a North American league rather than a European league. Common practice in the European sport leagues has always been to have each team play each other twice; once home and once away. It is this point following the North American model that highlights a concept regarded by many academics: profit maximisation (Fort & Quirk, 2004; Szymanski & Kesenne, 2004; Dietl, Grossmann & Lang, 2011) and win maximisation (Vrooman, 2000; Zimbalist, 2003; Kesenne, 2005; Andreff, 2011). In North America, sport leagues are exempt from a large proportion of legislation that applies to other US industry business’s allowing sport teams to take a monopolistic approach and make sport leagues profitable to their owners. On the other hand, open European sport clubs are viewed as not for profit and instead take a win maximisation approach due to the implementation of the European competition policy. This is a concept Sass (2014) and Dietl, Grossmann, and Lang (2011) align to the ‘Sugar Daddy’ effect due to the so-called sugar daddies investing enormous amounts of money. “[They] seem not to take the resulting financial losses into account because the utility derived from sporting success appears to compensate for the financial losses” (Dietl, Grossmann, & Lang, 2011, p286). With this in mind, Andreff (2011) argues that European sport leagues have been almost completely deregulated; particularly in European football due to the win maximisation approach and the dependency of financial backing.

To add to this, Booth (2004) highlights Australian sport leagues are different once again - specifically the Australian Football League as it fails to directly position itself in either a closed or open league format. "The nature of club ownership in the Australian Football League varies, and in general is vastly different from the privately-owned franchises/teams typically found in the US and Europe or the publicly-owned clubs also common in Europe" (Booth, 2004, p330). This highlights the variety in approaches taken by sport clubs and organisations to govern their respective leagues.

Although competitive balance is looked for in both an open and closed league structures, the application of market regulations have significantly different effects depending on where it is applied. An open league may strive for competitive balance to gain the reward of being promoted and to avoid the sanction of being relegated. However, financially, this may lead to disparities across the league as recently promoted

teams often see lower revenues to those who have been in the higher leagues for a longer period. The attempt for competitive balance in a closed league on the other hand is regulated by market tools such as revenue sharing, the rookie draft and salary caps (discussed further in this chapter; section 2.4.3). Yet, Rottenberg (1956), when focusing on the baseball player labour market in his seminal article, asserts that in a profit maximising professional sports club there are in fact sufficient conditions for a balanced competitions and there is no need for regulations. Opposing this however, is Sloane's (1973) utility maximisation model which suggests a lack of market regulation could threaten competitive balance within a league.

What is clear from this, is that regardless of the league structure and geographical location, there currently appears to be no set rule for one and a set rule for another. Additionally, it appears that even with multiple attempts to improve competitive balance there is no clear and definitive assessment of which regulations work best in which sporting league model.

2.4.2 Revenue Sharing

Revenue sharing is a widely used concept with an aim of increasing competitive balance under the assumption that resources become more equal and therefore, perceived 'weaker' and 'stronger' teams no longer exist. Linked to UOH, revenue sharing attempts to provide all clubs within a league a balanced revenue income. Team owners pool together a percentage of their revenues and distribute them evenly throughout the league providing a more equal opportunity to buy 'better players'. Traditionally seen more visibly in North American sports, such as American football and baseball, a weak team produces a negative externality on its stronger competitors. Revenue sharing arrangements have been introduced as a measure to improve the competitive balance by (partially) internalising this externality. This consideration however, is accepted as a model to promote competition around the world (Runkel, 2011).

The development of revenue sharing originally based its principles under the assumption of purely profit maximising teams and the invariance principle (Rottenberg 1956) hence the reason this implementation has more commonly been used in America. In fact, Kesenne (2000) and Vrooman (1995) identify revenue sharing to have little impact on a league with purely win maximising clubs. However, revenue sharing isn't

without its critiques. In a profit maximising sport team, revenue sharing creates a lack of incentive for teams to compete since winnings are reduced. Dietl, Grossmann and Lang (2011) suggest revenue sharing reduces the incentives for clubs to invest in playing talent because each club must share some of the resulting marginal benefits of its talent investment with the other clubs in the league – a theory defined as the ‘dulling effect’ as supported by Plumley, Ramchandani & Wilson (2018).

Revenue sharing can be viewed as the most talked about topic when considering factors effecting competitive balance with a significant amount of acknowledgement from academics (Szymanski & Késenne 2004; Dietl, Grossmann and Lang 2011). However, many academics test a variety of variables and therefore outcome of results are extremely different; below provide just some examples within the existing literature:

- ElHodiri and Quirk (1971), Fort and Quirk (1995) and Vrooman (1995) have extended the Invariance Proposition in their models to gate revenue sharing by showing that sharing revenue has no effect on player allocation within a league (Szymanski & Késenne, 2004).
- Szymanski and Késenne (2004) identify that under reasonable conditions an increase in gate revenue sharing among teams within a sport league reduces competitive balance by creating a more uneven contest.
- Yang-Ming Chang and Sanders (2009) base their conclusions on four measures of competitive balance and conclude that revenue sharing increases the variance of win percentages and therefore reduces the degree of competition in the league.
- Késenne (2000) identifies that revenue sharing improves competitive balance under both a profit maximising and utility maximising hypotheses.

The complexities arise when trying to compare these multi-variable approaches to conclude with one ultimate outcome, whether this be an individual sport, sport leagues or attempting to generalise differences between North American and European sports. In the four major North American sports alone, there are four different attempts to implement an effective revenue sharing measure for the promotion of competitive balance.

El-Hodiri and Quirk (1971), Fort and Quirk (1995), and Vrooman (1995) extend the invariance proposition, highlighted by Rottenburg (1956), to gate revenue sharing. Based on their models, they claim that revenue sharing does not change the level of competitive balance within a league. This form of invariance proposition has become one of the most heavily disputed issues in sport economics because its centrepieces, revenue sharing and UOH, represent two of the most important idiosyncrasies in the professional team sports industry.

2.4.3 Salary Cap

An alternative factor to increase competitive balance within a sport league is the implementation of a salary cap and/or a salary floor.

“A salary cap (floor) puts an upper (lower) bound on a club’s payroll. Since most leagues compute their salary caps and floors on the basis of the revenues of the preceding season, caps and floors can be treated as fixed limits”

(Dietl, Lang & Rathke, 2011, p448).

In a commercial industry business, a salary cap would be regarded as an exploitation of market power yet in professional team sports, salary caps are in effect across the globe: NHL (USA), NBA (USA), Rugby Union Premiership (UK), Super League Rugby (UK), AFL (Australia).

The sports economics literature concerning the influence of salary caps in professional team sport leagues is specifically focused on the relationship it holds with competitive balance and club profits. Academics suggest a salary cap to be a key concept when considering improvements in competitive balance due to the prevention of some teams spending larger amount than others. Alternatively, Vrooman (1995) argues that salary caps are a collusive effort by clubs to maximise league revenues by controlling labour costs at the expense of less competitive balance within the league.

Booth (2005), in his paper outlining Australian sports, identifies that since the introduction of the salary cap in 1985 in all three professional sports leagues (National Rugby League, Australian Football League and National Basketball League) competitive balance has improved. In North America, all four Major team sport leagues include some

variant of a salary cap mechanism. Although commonly dubbed the “salary cap,” the NFL only employs a limit on a team’s total payroll. The NBA, since 1999, and the NHL, since 2005, restrict both team payrolls and place a limit on individual players’ salaries (Maxcy & Mondello, 2006). Within European sport leagues, rugby union is the only professional team sport to adopt a fixed salary cap. Whilst this may work for Rugby Union due to its close alignment to the North American league structure, it is unclear the implications if other European professional team sports were to adopt this model (Williams, 2012).

Whilst many salary caps have seen an increase in their value in recent years, it has not deterred the impact a salary has in maintaining or increasing competitive balance. Kesenne (2002), Maxcy and Mondello (2006) and Dietl, Lang and Rathke (2011) all identify a salary cap as a vital method to improve competitive balance within a professional sport league and thus policies restraining salaries are in the clubs’ collective best interests. Salary caps are now an integral part of the system of labour relations in the league.

2.4.4 Reserve Clause and Free Agency

In professional sport a free agent is a player who is not bound by terms of a contract and therefore is eligible to freely sign with any club or franchise. The free agency regulation allows talent to be reallocated more readily to potential new contenders given that player sales had been restricted prior to 1970’s (Edkard, 2007).

When analysing this concept in literature, it is usually heavily linked to MLB. The MLB in North America long imposed institutional rules distorting a free labour market outcome for a player’s service. Prior to 1976, players were prevented from unilaterally selling their services to the highest bidder by the “reserve” clause that was part of all MLB player contracts. A clear and undisputed effect of the reserve system was to reduce player salaries and transfer to clubs the rents associated with player skills. However, this amounted to a collusive agreement among team owners to exercise joint monopsony power within sport leagues. Owners claimed that the reserve clause was necessary to preserve competitive balance. Without it, ‘rich’ large-market teams would outbid ‘poor’ small-market teams for the best players and come to dominate. However, several

studies have since examined the effect of free agency and have shown results that this concept did not change competitive balance (Daly, 1992 & Edkard, 20017).

Alternatively, the NBA, NFL, and NHL each impose restricted free agency (significant compensation is required from the team signing a free agent player to the team losing the player). However, unlike MLB, the NFL, NHL, and NBA have never been protected by an antitrust exemption (Maxcy & Mondello, 2006). Consequently, the path to free agent rights for players in these leagues was founded in antitrust challenges, and mobility restrictions have declined since the 1970s.

The structures of revenue sharing, salary caps and the free agency ruling across the professional sport landscape are all efforts to maintain a sense of competitive balance within the industry. Whilst all three of these factors can individually affect competitive balance in different sports, in different ways, these are not the only factors but instead, those most frequent within competitive balance literature. These factors have significant differences when used on their own to measure competitive balance or as a combined measure. Additionally, there will be a significant impact of the effectiveness of these methods depending on the league being a profit maximiser or a win maximiser.

2.4.5 Individual Sports

As previously identified, within the North American model, there are four sport leagues typically analysed more than any others. From these four, particular attention is paid to the MLB. This once again, could be contributed back to Rottenberg's (1956) seminal paper first using this for competitive balance analysis. Each sport has individual factors required for consideration of competitive balance. This next section looks at some of these sports, these factors, and their application to competitive balance in more detail.

2.4.5.1 MLB

Due to the larger volume of studies within this sport, appose to other sports, Major League Baseball provides further insight for analysis. Whilst it is widely recognised competitive balance in MLB has increased over the years (Schmidt & Berri, 2003), disagreements arise in relation to specific years. Bowman et al., (2013) suggests 2002 was a year that did not contribute to competitive balance and identified this to be due to fans believing one team would dominate baseball throughout the year. Similarly, prior

to this, labour strife in baseball resulting in a player strike in 1981 and the loss of the entire 1994 season meant a 'Blue Ribbon Commission' report was released where concerns about the continued dominance of certain teams were raised (Bowman et al., 2013). Schmidt and Berri (2003) suggest it was here that the disparity between the rich and poor teams in MLB prompted further observations. Since this, many publications have been produced in ACB literature analysing the effect of factors impacting competitive balance. It is noted by authors that a change in policy does significantly impact MLB, however, again there are disagreements over which is most impactful. Schmidt and Berri (2003) implicitly state that the era of free agency has been the most competitive in major league baseball's history.

2.4.1.2 NFL

Lee (2010) argues that among all professional sporting leagues, the NFL has demonstrated the greatest commitment to promoting balance between franchises. In 1993, the National Football League Players Association and the league reached a landmark collective bargaining agreement. This agreement included several innovations that might be expected to affect the competitive balance between teams, or league parity, particularly free agency, and payroll constraints.

It is apparent in literature that these policy changes have affected the NFL however, Lee (2010) suggests there is no significant effect of structural changes on parity. Furthermore, because of the many economic, structural, and policy differences, changes that can be seen are extremely varied throughout the NFL leagues overtime (Humphreys, 2002). Bowman et al., (2013) supports this interpretation and identifies a fluctuation of competitive balance in the NFL with no clear upward or downward pattern emerging. It is however suggested the expansion of the NFL has led to a negative impact on competitive balance in the more recent years the study was undertaken (Bowman et al., 2013).

2.4.5.3 European Football

Although much competitive balance literature covers American sport, the interest in European football has increased significantly in the past decade. Whilst most of these studies sit within English football, more specifically the English Premier league (EPL), literature does include analysis of 'the big five' European leagues (England, Germany, Spain, Italy, France) and international leagues such as the Champions League (Depkey &

Tomislav, 2021). When analysing competitive balance within European football there are many different factors that must be observed in comparison to North American sports. Differences include not only promotion and relegation and a win-maximising outlook, as previously mentioned in this chapter (page 32), but also international competitions not seen within the North American model.

Pawlowski, Breuer, & Hovemann (2010) report a decrease in competitive balance for the five top European national competitions which they specifically attribute to the Champions League pay-out system. In agreement with this, Carreras and Garcia (2018) attribute financial inequality to the decrease in competitive balance across leagues; specifically the increase in TV and broadcasting rights. This said, the change in bargaining system for TV rights in La Liga is not producing the expected positive impact in CB, but rather a negative one (Carreras & Garcia, 2018) and therefore the implications in other leagues are also unclear.

The English Premier League (EPL) stands out as the least balanced league in English football (Plumley, Ramchandani, & Wilson, 2018). However, whilst this goes against the theory of competitive balance, assuming leagues should be competitively balanced to attract an audience, the EPL continues to gain and grow intense interest throughout the world (Brorooah & Mangan, 2012). This along with the significant increase in TV rights for the EPL (Ramchandani, Plumley, Boyes, & Wilson 2018) contradicts leagues losing interest of fans if games become less competitively balanced and games are predictable before they are played. This goes against analysis (previously identified in section 2.3.2) suggesting if teams get 'too successful', competitive balance within the industry is compromised, meaning fans lose interest and the league fails.

2.4.5.4 Rugby Union

Little attention has been paid to rugby union (Williams, 2012). In fact, the existing publications focus specifically on English rugby union with only three studies published to date (Williams, 2012; Hogan & Massey, 2013; Hogan & Massey, 2018). Having only turned professional in 1995 following a long-standing ban, Rugby Union neither directly fits a European model of sport nor a North American sports model. This is identified by the factors of promotion and relegation (European model) as well as utilising a salary cap and revenue sharing competitive balance methods (North American Model). Rugby union also additionally uses bonus points as a means of increasing in game competition.

To date, the author is unable to find publications that specifically investigate the effect of bonus points, meaning analysing rugby union may not be able to use typical measures identified above.

Aligned to the European model, Rugby Union also includes international series such as the Guinness Six Nations (2018-2019) including France, Wales, Scotland, Italy, Ireland and England. Whilst this does not directly affect leagues in the same way as the Champions League in football, it does remove players from domestic fixtures to play in international fixtures which will contribute significantly to competitive balance. However, once again, this theory has not yet been explored and provides justification of the need to analyse this concept further.

Hogan and Massey (2018) identify that short run competitive balance within rugby within England declined following the move to professionalism, but subsequently improved in the Premiership Rugby league following the introduction of salary caps. Williams (2012) tends to agree with this statement as he concludes competitive balance in rugby union to “be reactive to changes in its competitive environment” (Williams, 2012, p100). With recent significant increase in purchasing of broadcasting rights and an increase in its public profile due to the success of the recent Rugby World Cups, changes in rugby union are happening at an extremely fast pace. Although studies suggest rugby union maintains competitive balance levels better than those of other sports (Williams, 2012), these rapid changes may see huge effects for the sport.

2.4.5.4.1 Measuring competitive balance in rugby union

To ensure an appropriate measure of competitive balance in rugby union, multiple methods are required, yet all will only cover one element of competitive balance and not produce an overall result; and therefore, will be used in unison with one another. In 2012, Williams identifies that “no single measure is capable of capturing all aspects of the league behaviour” (Williams, 2012, p99).

Section 2.3.4 began to consider relevant measures for the competitive balance of English rugby union teams. Here it was stated that ISD and ASD had been ruled out measures and in addition, RSD and HHI would also not be a suitable fit to measure the competitive balance in the sport of rugby union.

Williams (2012) identifies the need to consider the distribution of Premierships, against the more commonly used standard deviation measures in order to identify trends and goes on to suggest a further investigation is warranted. This is supported by Hogan and Massey (2018) and therefore a calculation of the distribution of league titles (alongside the Premiership) will be used in this thesis. In addition, Williams (2012) supports the requirement for looking at bonus points, specifically Losing Bonus Points, on an individual basis identifying a case for new avenues to explore this. Hogan and Massey (2018) further this and state there is a requirement to search for trends across the variety of variables. Rugby union sees a complex make up of variables not seen in other sports across the globe and therefore there is a need for these to be studied in detail collectively and individually. Trends will be analysed for bonus points, but also playoffs, the salary cap and international fixtures.

Identified in section 2.3.4, a measure of competitive balance that will not be utilised in this study is HHI in its purest form. Due to its inability to take all teams in the league into account, a more dynamic measure is required. For this reason, although not yet tested in rugby union, HICB will be used due to its successful application in European football (Michie and Oughton, 2004). As rugby union is more closely aligned to the European model, it is hoped that this measure will provide a more aligned insight of the market concentration in rugby union.

Finally, no author can agree on an appropriate measure to calculate win ratio's with some using an actual standardised deviation, some an idealised standard deviation and some a relative standard deviation. For this reason, win percentages will be analysed as purely percentage figures making them comparable against any team in any league. The context of these win percentages will further be supported by discussion regarding the unique variables in rugby union and the impact this may have on the percentage figures.

All the identified measures above link to table five and more specifically the ACB line of enquiry for this study. Unique contributing factors to competitive balance in rugby union will also be analysed on an individual basis to measure them thoroughly by means of descriptive analysis. This will allow the true measure of each factor to be explored in significant detail to comprehend how the overall picture of rugby union's competitive balance is portrayed.

2.5 Conclusion

The main findings from the systematic review highlight the huge number of considerations when analysing competitive balance. The systematic review has not only identified the different approach to governing a league, but also the individual factors within those leagues that make them unique. It appears, based on the findings of this systematic review, that the methods of analysis and choice of variables have been at the discretion of the authors rather than defined through a more rigorous scientific protocol. Therefore, to aid future research, table five must be considered in detail when determining the best approach to measure a specific sport.

Processing existing publications in the field of competitive balance in a systematic manner has allowed the development of 'best suited' measures. The final paragraph of this systematic review highlighted the most appropriate competitive balance measures to use when considering English rugby union. This is not only based on what has been done before, but also through understanding individual factors affecting the sport, understanding the league structure and organisation, and also understanding the strand of competitive balance analysis intended to be answered.

The systematic review process has proven insightful to the researcher identifying unexpected themes and factors. However, throughout this process, the systematic review did not highlight publications expected by the researcher and the supervisory team. This may be due to a number of reasons such as the size of the scope, or search criteria, however, it does identify the need to investigate the literature further in order to ensure all relevant publications are considered within this thesis. A narrative literature review was conducted alongside the systematic review to ensure thoroughness and precision of the industry before this study proceeds to its methodology and results.

Chapter Three

Narrative Literature Review

3.1 Literature Review Introduction

Following the systematic review, this chapter presents a narrative review of the literature surrounding elite rugby union in England. Whilst a narrative review has no uniform process (Khan, 2018), it is important that it is used alongside the systematic review to complement the overall review process. At this stage, a review of the narrative literature is necessary due to the omission of key literature within the systematic review identified by the author and the supervisory team. Consequently, this chapter provides a wider understanding of the business of professional rugby union and the industry it sits within. This chapter firstly presents broad economic theory and follows by considering its application to men's elite rugby union in England.

3.2 The Economic Theory of Professional Team Sport

Professional sport leagues provide interesting context stemming from unique characteristics that distinguish leagues from other business models (Mason, Sant & Soebbing, 2017). Unlike a typical business model, where monopoly in a market allows considerable market power, Rottenberg (1956) argued that all other things being equal, the closer the competition between teams, the greater the interest in sport and therefore greater total attendance and greater revenues for teams. This UOH argues for close competition and presents benefits for the league such as increased attendance at games. In addition, Downward and Dawson (2000) identify this UOH as a form of market failure within sport industries and suggests it is necessary to the evolution and successful operation of sporting leagues; ultimately identifying how professional team sport differs to that of a usual business model.

The extent of theoretical literature on the determinants of close competition in sport leagues has grown rapidly in recent years but can be dated back to Neale (1964) where he suggested, in sport, teams need to both compete, co-operate, and collude to produce 'a game'—a concept he titled the 'peculiar' economics of sport. Here it is highlighted that it does not pay for one team to establish a monopolistic position due to the joint nature of 'production' in sports (Dobson and Goddard, 2011).

The 'business' like approach to sport can typically be aligned to US sports (Downward & Dawson, 2000) yet, rather than the firm choosing its level of output to maximise profit,

the sport's team level of output is determined by the league (for example, the league determines the amount of games played per season). The industry concept of perfect competition would suggest sport leagues, of profit maximising clubs, supply equally competitive sporting products to spectators seeking to maximise their utility or enjoyment of a sport. Rottenberg (1956) however suggests that in the U.S particularly, individual clubs would have some pure monopsony power, the opposite extreme from the perfect competition seen in existing models. Equally, Neal (1964) argues that there will be a tendency for sports to gravitate towards monopolies providing there is a feasible economics or sporting basis for competition.

Whilst economists have often promoted the relationship between economic theory and professional team sport, Gratton and Taylor (2000) identify that once a professional team becomes a monopolist within their respected league, revenues would disappear altogether; output would be zero since it would be impossible to stage a match. Therefore, to maintain existence of teams, one major function of the league is to ensure that no team achieves too much market power, or excessive dominance. Instead, the model of success for a sport team is often defined in terms of the rank order of clubs in the league at the end of a season, after points have been allocated (Downward & Dawson, 2000). However, the underlying business principles acknowledged above identify that the parameters of the suggestion by Downward and Dawson (2000) may in fact vary. Whilst the league must strive for competitive balance, this may not always be possible.

Sport leagues around the world have consistently justified competitive restraints such as resource distribution, salary caps, roster limits and many other limits (Alacy, Gaskell, Leach & Szymanski, 2010). Typically, in closed North American leagues, leagues implement profit maximisation restrictions such as revenue sharing techniques, salary caps, and draft selection processes. European leagues utilise promotion and relegation to balance leagues, a tool often not seen within US sport. Individual sports then include different regulations such as European football having a Financial Fair Play (FFP) ruling (regulations to prevent professional football clubs spending more than they earn) and English Cricket who employ revenue distributions. Rugby union offers a unique approach to competitive balance as it combines elements of both the European models and North American models. Rugby union in England adopt promotion and relegation across all

leagues within the game. However, in their top tier of elite rugby union (the Gallagher Premiership), a salary cap is implemented; traditionally a North American approach to maintaining competitive balance within sport leagues. Premiership Rugby (2020a) identify the use of this approach as a means of encouraging home-grown talent and controlling long term financial sustainability.

3.3 Profit Maximisation versus Utility Maximisation

Coupled with the debate over the nature of the firm in professional team sports, there has been debate over firms' assumed objectives (Downward & Dawson, 2000). In the United States, most analysts assume that professional sport clubs behave as profit maximisers (Kessenne, 2014) whilst the European model more closely aligns to the utility maximisation end of a continuum (Plumley, Wilson & Shibli, 2017); a concept Dietl, Grossmann and Lang (2011) identify as a way in which clubs maximise a weighted sum of profits and wins. Downward and Dawson (2000) suggest that the precise motivations of professional team sport club owners remain unsettled for economists - do teams chose to maximise profit or utility?

In the case of English rugby union, all clubs are essentially selling the same product to the consumer, a rugby sporting fixture, and therefore could not survive in a monopolist industry on their own due to the need to have competition. An objective of a professional rugby club is to 'provide entertainment in the form of a rugby match' (Collins, 2009). The objective here, is not to maximise profit, but to achieve playing success on the field. By doing this, teams strive for championships, trophies, and promotion to name a few options which in turn makes a team more profitable (Beech and Chadwick, 2013). A secondary objective would be to do this whilst remaining 'in the black', having positive earnings without being burdened by too much debt. However, it is common that many league clubs operate at a loss and only stay in existence through owner donations, supporter club activities and the use of lotteries (Gratton and Taylor, 2000). Sloane (1971) regarded utility maximisation as the objective of most clubs. He suggested that owners and directors were willing to outlay money without regard to pecuniary rewards; playing success being the ultimate objective of the clubs.

This approach significantly varies from that of the North American sport leagues where profit maximisation is the clearly established objective. Noll (1974) concluded that there is no evidence that the prime motivation of the vast majority of the owners is any consideration other than profits.

With this in mind, it is also important to note that professional sport teams are often unable to make these structural decisions on their own. Non-competitive characteristics of professional team sport leagues, including labour market restrictions and the pooling of revenues (traditionally in US sport), are often implemented by governing bodies of independent sports and therefore often dictate a leagues objective.

Nearly every phase of a team or league is influenced by practices and rules that limit economic competition within the industry. In most cases government has either sanctioned or failed to attack effectively these anti-competitive practices. Consequently, professional team sports provide economists with a unique opportunity to study the operation and performance of an effective and well-organised control.

(Noll, 1974, as cited in Gratton and Taylor, 2000)

3.4 Uncertainty of Outcome Hypothesis

Previously mentioned in Section 2.3, there are two distinct threads of competitive balance: one being the UOH. "One of the key features that makes the economics of professional team sports 'peculiar' is that demand for the product is positively related to the uncertainty of outcome" (Gratton and Taylor, 2000, p193). Pioneered by Rottenberg (1956), Neale (1964) supported the theory when he further posited that the overall uncertainty of the league could affect fans utility through the 'League Standing Effect'. Here, Neale (1964) identifies that fans derive more enjoyment from discussing the game when there are more frequent changes in the standings, or league table and in particular, argued that the nature of sporting competition requires a balance between competition and cooperation between contestants (Downward, Dawson & Dejonghe, 2009).

Economists have highlighted UOH as a crucial feature of the professional team sport industry and one that distinguishes it from all other industries (Gratton and Taylor,

2000). A key theme running through the sport economics literature is that UOH is an essential feature of sport and is key to maintaining supporter interest (Hogan, Massey, Massey, 2017) therefore identifying the reliance sport has on its fans. It is also noted, that the UOH not only relates to how one sided a match is predicted to be, but it can also have a significant effect on gate attendance and television viewing figures (Morrow, 2013). UOH has been an early contributor to economic theory surrounding sport and is still prominent today in economic literature. Contributors such as Fort and Maxcy (2003), Downward, Dawson and Dejonghe (2009), Pawlowski, Sauer & Simmons (2013), Eckard (2017), provide more recent appraisals of UOH within sport however, it is still maintained that sport fans value sporting fixtures with uncertain outcomes.

3.4.1 Temporal Dimensions of UOH

In 1986 Cairnes, Jennett, and Sloane distinguished four temporal forms of the uncertainty of outcome. Firstly, a short-term (also seen as short-run) uncertainty of outcome where analysis focuses on an outcome of a particular game (Cairnes, Jennett & Sloane, 1986). Second, a medium-term uncertainty of outcome aiming to identify a season's winner whilst there are still many contenders. Thirdly, a within-season uncertainty of outcome where several teams are in contention to win the league and finally, a long-term uncertainty of outcome concerning specifically the element of competitive balance and analysing a concern with persistent domination that may damage the league. This approach at 'sectioning' the uncertainty of outcome theory has continued to develop over time with other academics offering similar interpretations in form of a short, medium, and long term run of competitive balance (Lee and Fort, 2008; Downward, Dawson & Dejonghe, 2009). Similarly, categories such as game uncertainty (GU), playoff uncertainty (PU) and consecutive season uncertainty (CSU) are commonly used throughout academic literature (Tainsky & Winfree, 2010).

A short run uncertainty outcome highlights the value of close contests to the spectators (Downward, Dawson & Dejonghe, 2009). Also identified as Match Uncertainty, this theory identifies that fans are more likely to attend future games if teams are of the same level of ability (Downward, Dawson & Dejonghe, 2009). Common measurements of short-run competitive balance in the literature include the RSD of teams' win ratios attributed to Noll (1988) and Scully (1989). However, there are many variables that

should be considered within short run UOH dependant on the sport analysed and the geographical context the league sits within. For example, all other things being equal, two teams immediately juxtaposed to one another suggest that both have an equal chance of winning (Downward, Dawson & Dejonghe, 2009). This suggestion however, does not consider the element of home advantage: "the consistent finding that home teams win over 50% of the games played under a balanced home and away schedule" (Courneya & Carron, 1992, p13). It also further questions the outcome of a draw more commonly seen within European sport leagues and how that then determines 'a winner'.

Also defined as 'within-season' or 'seasonal' uncertainty of outcome the medium-term uncertainty of outcome theory considers the outcome of a league rather than a specific individual match. Hogan, Massey and Massey (2017) identify that medium term uncertainty of outcome should also serve to maintain supporter interest in matches involving a wider range of teams over the course of the season such as knock-out stages within leagues. Downward, Dawson and Dejonghe (2009) suggest there is limited agreement on how to measure medium term uncertainty of outcome, possibly attributed to the lower number of publications within this area.

Finally, long term uncertainty of outcome describes a lack of dominance by one or more club over a number of seasons, sometimes referred to as dynamic competitive balance (Cairns, Jennett, & Sloane, 1986). This particular element of UOH therefore looks at the element of competitive balance very differently to some of the other approaches. It is not uncommon that teams may decide to build for the long term by forsaking winning in the short-run in both the European and American models (Knowles, Sherony, & Hauptert, 1992). Although revenues may drop during the interim, team profits may not wane if costs are kept down, especially those associated with high salaried players who are not retained. From the league's perspective this strategy generates a negative externality because as the competitive balance deteriorates, revenues for other teams in the league may decline (Knowles, Sherony, & Hauptert, 1992). Alternatively, if a team with this approach were to be successful, and therefore dominate the league, this will also deteriorate competitive balance within the league overall.

3.5 The Economics of Sport Publications

As previously mentioned, the literature on the economics of professional team sport has grown rapidly since articles first started to appear in the 1950's (Gratton and Taylor, 2000); particularly in the area of UOH. Most US studies have focused on MLB or NFL (e.g., Knowles, Sherony, & Hauptert, 1992; Edkard, 2005; Caporale & Collier, 2015), whereas the majority of UK studies have centred on football (e.g., Sloane, 1971; Szymanski, 2001; Plumley, Ramchandani & Wilson, 2018;). Some empirical studies have been extended to European football or the 'Big five leagues' (Pawlowski, Breuer & Hovemann, 2010; Manasis & Ntzoufras 2014;), cricket (Lenten, 2008) and rugby union (Hogan, Massey & Massey, 2013) however these are limited in comparison.

Whilst many of these studies see similarities within the literature, American sport and European sport face different contextual challenges (see section 2.4.1) making direct comparisons and application of UOH evaluations hard to implement. It is therefore crucial to ensure a best fit methodology specifically to the sport. Scelles (2016) explains how European open leagues have largely influenced the sport economics literature and changed the landscape of which sport economics is viewed. Similarly, whilst the college system was excluded from the systematic review chapter (see chapter 2), it is important as a wider- by-product of the American league structure to understand and consider to further analyse the theory of UOH.

The UOH implies that an important motive behind conference formations and multi-team movements is to create more balanced leagues. This also applies to the destination conferences that admit new schools (Eckard, 2017). In contrast to professional team sport, Quirk (2004) suggests that in college conferences, teams will organise themselves into leagues with other teams of similar playing strength to maximise interest in individual games and season-long championship competitions. For example, American college athletics are organised into many conferences (leagues) for each sport, with no single conference designated as 'premier'. Colleges are free to form conferences at any time conditioned simply on mutual agreement or remain independent and unaffiliated with a conference. They can also leave a conference to become independent or to join another conference singly or in groups (Eckard, 2017).

Eckard (2007) argues the mutual desire for balanced contests creates a centripetal force that draws together teams of equal playing strength. Eckard (2007) furthers this and suggests that if the opposite occurs within an established league, whatever the degree of competitive balance at its inception, the league will become less balanced over time driving the league apart. Whilst this is apparent within North American sport leagues, particularly that of College sports when these forces manifest as 'conference realignment', it may not be so common in other sporting models.

An contrasting approach to this theory suggests that it may not be all that bad if one team were to 'run away' with the league title or dominate most of their games within a given season. Pawlowski (2013) identifies that in leagues that have been dominated by a small number of teams over recent years (for example the Premier league where Manchester City have won 4 of the past 5 titles, with Liverpool winning the other, and La Liga where only Barcelona, Real Madrid and Atletico Madrid have won titles in the past 18 years), attendance and TV viewing figures have increased. This ultimately challenges the relevance of the UOH and enhances the decision to focus on ACB publishing's, specifically in European football. In fact, this suggests that fans would rather see a team dominate than watch a team consistently draw or lose games. For this reason, when measuring competitive balance, it is crucial to consider an ACB enquiry into league dominance in order to identify if UOH really does matter to the overall competitiveness of the league. To counter this point however, Mason, Sant & Soebbing (2017) suggest that domination of a league by a single club would reduce public interest in the sport as a whole. Eventually, although a time period has not been identified in literature, attendance at games not involving the dominant team would reduce, even if the dominant team itself continued to enjoy strong support (Mason, Sant & Soebbing, 2017). Following on from this, Mason et al., (2017) continues to suggest that after this, the dominant team would suffer. On the pitch at least, teams need a level of competition to be able to survive although, this is not seen in the examples provided above. Dobson and Goddard (2011) support this and argue there is a benefit when competition is close to equal and therefore allows for uncertainty of the match result.

An alternative contribution is provided in Szymanski's (2010) publication, 'The comparative economics of sport', where he cites twenty two publications; of which only 10 offer clear support for UOH. To further this, those in support of outcome uncertainty

imply that attendance is maximised when the home team has a higher chance of winning (Szymanski, 2010). This concept is supported by Buraimo and Simmons (2008) who suggest that the majority of spectators prefer to see the home team play an inferior team with a win being more probable. Additionally, a similar suggestion is made by Pawlowski and Anders (2012) who suggest fans prefer to play teams with a high 'brand value' or a 'higher quality' on pitch performance.

The relevance of UOH at this point in the thesis is therefore questioned. Whilst the outcome of uncertainty remains a key concept when considering competitive balance for the sport leagues, and an understanding of the concept is imperative, the theory of uncertainty itself lacks impact due to the desire to achieve maximum success. League structure and governance should promote the element of uncertainty to strive for competitiveness according to theory. However, the findings above present a clear argument that the focus of this study should be an ACB line of enquiry.

3.6 Governance in Sport

In mainstream economics, corporate governance is studied with the principal-agent model in a context where organisations operate in a competitive market to maximise revenues. However, Andreff (2015, p75) highlights that "transferring such analysis to professional team sport leagues is not straightforward since a league actually does not operate in a genuine competitive market". Whilst professional sport leagues may not always aim to maximise profits, it is crucial to note that lasting club deficits would raise the issue of league financial stability (Scelles, 2016), hence the reason for governance of professional team sports and leagues.

Many sport leagues operate different policies to create the element of competitive balance however the range of regulation policies across a wide variety of sports makes it hard to analyse effectiveness. On the one hand, closed North American sport leagues are exempt from the bulk of legislation that applies to any other U.S. industry, while a "quasi-socialist" monopolistic regulation is used to make sport leagues profitable to their owners (Andreff, 2011). On the other hand, the European competition policy governing European sport leagues encourages a competitive environment for sport but since clubs do not aspire to maximise profit, budget restrictions are considered less. It

is these reasons that leads Andreff (2011) to suggest leagues have been rapidly deregulated.

Governance in Rugby union has accelerated rapidly since turning professional in 1995. Rugby union became the last significant international sport to sanction professionalism (Ryan, 2008). It has since undergone considerable transformation (O'Brien & Slack, 2003) contributing to the competitive balance of the league structure. Whilst World Rugby (formally known as the International Rugby Board) is the world governing body for the sport, English rugby union clubs are directly accountable to the Rugby Football Union (RFU). In addition, the top tiered league must also follow regulatory practise set out by Premiership Rugby who act as a private company, wholly owned by and responsibly to its member clubs (Premiership Rugby, 2020b).

In comparison to other major sporting leagues, rugby union has had a relatively short life span and teams have had to adapt very quickly to significant changes within the sport. Firstly, the move to professionalism meant that some clubs began to professionalise their operations almost immediately, buying in players, finding sponsorships, and identifying benefactors. Other teams within the league failed to respond as quickly to the change and as a consequence caused a dividing line between those who could afford, and those who could not; creating an imbalance within the league (O'Brien & Slack, 2008). The introduction of professionalism may be viewed as an implicit test of Rottenberg's (1956) invariance principle which tests the league's ability to achieve competitive balance.

A second significant regulation was implemented in 1999-2000 when English Premiership Rugby (EPR) introduced a binding salary cap and revenue sharing model to ensure the viability of the league and its member clubs. The current level of the salary cap is £6.4 million, plus two excluded players whose salaries sit outside the cap (Premiership Rugby, 2020c). However, this has been a controversial topic area within rugby union since its implementation. Whilst the salary cap has remained unchanged since the 2017/2018 season, there have been many calls for it to be increased or scrapped altogether (Kinsella, 2014). In addition, a recent investigation into top flight team, Saracens, has reported a breach of the league's salary cap leading to a 35-point deduction, £5.36m fine and subsequent relegation for the club. This breach shows two

responses. First, the disregard of the salary cap by clubs. Saracens identified loopholes within the regulations that allowed them to overspend on paying wages for their own gain. However, it also shows the response from the regulatory practise about the importance of such control measures to maintain balance within the league and the consequences teams face should they break them. Premiership Rugby (2020b) states the level of the salary cap and the operation and management of it is reviewed regularly to ensure it is fit for purpose. Research undertaken by Hogan and Massey (2018) supports the importance of the salary cap within rugby union and suggest that these regulations have in fact improved competitive balance in English Premiership Rugby with seven different finalists since its implementation.

In addition to the above measures, rugby union also adopt the European league structure utilising promotion and relegation between leagues using a points-based award system throughout the season. Rugby union however, differ from their European sporting rivals and also implement a bonus point system; a factor that is extremely unique to this sport. Whilst there is a lack of research on the benefits of this system and if it affects the overall competitive balance of the league, it is a crucial element for consideration within the game due to the impact it can have on where a team may finish in a league.

3.7 Conclusion

The literature review concludes important considerations when analysing competitive balance that were not identified within the systematic review and therefore justifying the need for this chapter. Firstly, the peculiar nature of economics and sport. The literature review identifies that sport, whilst needing to survive, can operate very differently to usual business practise and therefore regardless of suggested theory, sport will always have exceptions to the rule. In addition, the literature review has justified the disregard of UOH as a measure for English men's rugby union competitive balance at this point. It was important that the UOH theory was considered due to tradition, however as concluded in section 3.5, the theory lacks solidness in the overall theory of competitive balance. It is this reason that ACB will underpin the methodological approaches (chapter 5) within this thesis. Finally, both the systematic review and

narrative literature review identify the difficulties when measuring competitive balance due to the vast number of measures presented in past literature. It is evidenced that not all measures are required to produce ACB. Instead, measurement should carefully consider the individual sport. Geographical location and sport specific governance factors are a priority consideration when determining a best fit for a specific sport league. For this reason, the methodology choices of this thesis are identified thoroughly in Chapter 5.

Before this however, the final paragraph of this narrative literature review has highlighted the complex nature of rugby union as sport. Rugby union has many unique considerations not aligned to other sports. For this reason, before moving onto the methodology of this thesis, a chapter is provided to offer further information on the sport of English rugby union. This chapter will firstly consider the history of rugby union to provide background context of the game and will progress to identify how the game operates as well as identifying further governance considerations.

Chapter Four

English Rugby Union

4.1 History of Rugby Union

The history of rugby union is fragmented with many publications all citing different versions of a similar story (Hughes 1857; Collins, 2009; Shortell, 2010; Johnson, 2015; Rayner, 2018). Whilst there may be no clear origin, it is widely agreed that the sport, now known across the world, was formalised from a school located in Rugby (UK). Adapted from a long tradition of playing football, rules were frequently modified, only to be agreed shortly before the commencement of a game.

The most popular story of its formation is that of William Webb Ellis in 1823 whom with 'a disregard for the rules of football, took the ball in his arms and ran with it' (Johnson, 2015); thus, creating the distinctive feature of the rugby union game. Because of this, and the credit given to William Webb Ellis by Matthew Bloxam in his book 'The Origins of Rugby' (Bloxam, 1889), Ellis has become synonymous with the sport. The Webb Ellis Cup has been presented to the winner of the Rugby World Cup since the first competition in 1987. Additionally, Rugby School issued a plaque cementing Ellis's ownership on the game stating 'The local boy who inspired the fame of rugby football on The Close at Rugby School in 1823' (Langley, n.d.).

Although this story has become firmly entrenched in the sports folklore, it is not supported by substantive evidence and is discounted by most rugby historians as a myth. Shortell (2010) identifies that history abounds in references to ball games, such as harpastum, camp-ball, or hurling to goals, which had features now recognised as belonging to soccer or to rugby and combined both handling and kicking. Collins (2009) supports this and identifies, that whilst it is possible that in 1823 'Ellis' was in fact the first school student to pick up the ball and run, "of the little that is known about William Webb Ellis, we can be certain of one thing: he did not invent the game of rugby football" (Collins, 2009, p.vii).

Whilst the validity of the Webb Ellis story has been questioned, it is certain that the pupils of Rugby School shaped the game of Rugby Union; if nothing more obvious than the name of the game. Different versions of the carrying game were played in schools across England yet it was Rugby School whose rules developed from Rugby football that became popular in preference to the games of other schools. Additionally, Rayner (2018) identifies a consideration of the origins of rugby union to reference Dr Thomas Arnold

and the doctrine of Muscular Christianity. Cited as 'Rugby's greatest Head Master' (Rugby School: About Us: History, n.d.) Dr Arnold is famed for "ridding Rugby School of its Flashmans and emphasising subjects that were a good 'preparation for power'" (Rugby School: About Us: History, n.d.). Arnold explained "what we must look for here is, first, religious and moral principle; secondly, gentlemanly conduct; thirdly, intellectual ability" (Collins, 2009) – a philosophy later known as Muscular Christianity; underpinning Rugby Union's core values to this day. All of the considerations above helped Rugby School pupils compose the first written rules of the game on August 28th 1845 (Origins of Rugby, n.d.).

In 1863, The Football Association (FA) was formed as a national governing body in an attempt to codify a set of football rules. These rules specifically banned players from using 'rugby tactics' such as running with the ball in hand and hacking (kicking players in the shins). As a result of this, those in favour of the 'rugby rules' split from the FA to form the Rugby Football Union in June 1871 with their code being known as 'rugby football' (The Rugby Football Union, n.d.).

The RFU remained the ultimate arbiter of the sport until the International Rugby Board (later to become World Rugby) was formed in 1886. Significant events in the history of rugby union after this include the presence of the sport at its first Olympic Games in 1900 (International Olympic Committee, 2017). Furthermore, in 1987, New Zealand hosted the first Rugby World Cup and most recently, having historically been an amateur sport, on the 26th August 1995, the International Rugby Board declared rugby an 'open' game. This formally removing restrictions on payments to players, allowing the game to become professional at the highest level for the first time.

The increasing influence of a business ethos within sport during the latter decades of the twentieth century exposed rugby union to the realities of commercialism (Rayner, 2018). The rugby union game had to move rapidly to compete due to it being the last significant international sport to sanction professionalism (Ryan, 2008). Moving forward, rugby union must balance between elite and amateur competitions and the needs of fans.

4.2 The Game of Rugby Union

Rugby union, (commonly known simply as Rugby) is contested by two teams of fifteen players and involves one team invading another team's territory. It is a close contact sport based on running with the ball in hand. The object is to score points against the opposing team through tries, conversion kicks, penalty kicks and drop goals. The rugby game is broken down into two forty minute halves with a ten minute rest period in between and is controlled by a referee and two touch judges responsible for upholding the laws of the game. The game itself therefore reflects no impactful difference to other team sport regarding the time frame of the game. The notable difference rugby union has embedded into its game to increase competition is the varying ways in which points are scored throughout the eighty minute period.

4.2.1 Scoring points

There are several different ways points can be scored within rugby union. A breakdown is provided in table 6 below with definitions provided by World Rugby (2015). By embedding multiple ways to score points within the game, rugby union have increased a competitive element on a match day. For example, a team who kick multiple penalties in a game may score twelve points without the need to score a try. This is the same number of points as a team who may score two tries and converting one of them. Both teams would have a level score with two very different approaches to the game, which depending on the opposition, may be a tactical ploy.

Table 6: Points Scored in a game of Rugby Union

In game scoring points		
Try	5 points	A try is scored when the ball is grounded over the opponent's goal line within the goal area
Conversion	2 points	After scoring a try, the team is provided an opportunity to gain a further 2 points by kicking the ball over the crossbar and between the post from a place in line with where the try was scored
Penalty Try	7 points	A penalty try can be awarded if a player would have scored a try but for foul play by the opposition
Penalty	3 points	When awarded a penalty after an infringement by the opposition, a team may choose to kick at goal
Drop Goal	3 points	A drop goal is scored when a player kicks for goal in open play by dropping the ball onto the ground and kicking it on the half-volley

Different point scoring opportunities allow teams to compete in different ways. One team may expect the fact they have a strong ability to score tries and therefore this would be a priority when considering points. Other teams may realise the value of a consistent kicker accumulating additional points by successfully kicking conversions, penalties and drop goals and therefore may not need to score as many tries to gain victory. By providing this additional element to the game, rugby union have created competitive opportunities on the pitch that are not seen in other sports.

4.2.2 Governance

As per the European model of sport noted in section 2.4.1, rugby union governance structure resembles a pyramid with World Rugby at the highest point. World Rugby (previously known as the International Rugby Board) are responsible for publishing the games laws and rankings as well as organising the Rugby World Cup every four years. World Rugby is an international federation and a global movement comprising more than five hundred million fans and ten million players within one hundred and twenty eight national member federations affiliated through six regional associations (World Rugby, n.d.).

The next layer of the pyramid consists of the Unions of each member country; in England's case, the Rugby Football Union (RFU). Based at Twickenham Stadium, the RFU is the largest rugby union society in the world, representing over two and a half million registered players, organising matches for the England National team, and educating and training players and officials (Rugby Football Union, 2021). The RFU (2021, p1) identifies its purpose "to enrich lives, introduce more people to rugby union and develop the sport for future generations".

As per other rugby union governing bodies around the globe, the RFU utilise a salary cap as a governance tool. As noted in section 2.4.3, a salary cap is an agreement or rule that places a limit on the amount of money that a team can spend on player salaries. Rugby union in England adopts a hard salary cap of £6.4 million for the 2020-2021 season. This figure has been reduced in recent years mostly due to the impact that COVID-19 has had on the game and individual financial circumstances; more details on this are provided later in section 6.7. The salary cap is only used in the highest league within the game, the Premiership, and therefore there are no financial restrictions for the leagues below. For the 2021-2022 season, all thirteen Premiership clubs unanimously agreed to reduce the salary cap to £5 million. The implications of this will be considered in the results and discussion section later in this thesis (Chapter 6).

4.2.3 Rugby Union Structure

The league structure within rugby union is one that has seen many changes, especially since its professionalism in 1995. In November 2008, plans to restructure were announced for the 2009-2010 season rebranding the second tier as the RFU Championship as opposed to National League One. The 2017-2018 season saw further changes, primarily to teams in the middle of the league structure. National League 3 leagues were renamed as 'Premier' divisions to ensure a clear distinction between regional and national rugby union. The current league structure for the 2020-2021 league season is detailed in table 7 below:

Table 7: 2020-2021 English Rugby Union League Structure.

1	Premiership Rugby 12 teams															
2	Championship Rugby 12 teams															
3	National League One 16 teams															
4	National League 2 NORTH 16 teams								National League 2 SOUTH 16 teams							
5	Midlands Premier 14 teams				North Premier 14 teams			London & South East Premier 14 teams				South West Premier 14 teams				
6	Midlands 1 West 14 clubs		Midlands 1 East 14 clubs		North 1 East 14 clubs		North 1 West 14 clubs	London 1 North 14 clubs		London 1 South 14 clubs		South West 1 West 14 clubs		South West 1 East 14 clubs		
7	Midlands 2 West (North) 14 clubs	Midlands 2 West (South) 14 clubs	Midlands 2 East (North) 14 clubs	Midlands 2 East (South) 14 clubs	Durham Northumberland 1 14 clubs	Yorkshire 1 14 clubs	North 2 West 14 clubs	London 2 North East 12 clubs	London 2 North West 12 clubs	London 2 South East 12 clubs	London 2 South West 12 clubs	Tribute Western Counties North 14 clubs	Tribute Western Counties West 14 clubs	Southern Counties North 12 clubs	Southern Counties South 12 clubs	
8	Midlands 3 West (North) Midlands 3 West (South) Midlands 3 East (North) Midlands 3 East (South)				Cumbria League Durham/Northumberland 2 Yorkshire 2			London 3 Eastern Counties London 3 Essex London 3 North West London 3 South East				Tribute Somerset Premier Gloucester Premier Tribute Cornwall/Devon Dorset & Wilts 1 North				

			London 3 South West	Dorset & Wilts 1 South Berks/Bucks & Oxon Premier
9	Midlands 4 West (North) Midlands 4 West (South) Midlands 4 East (North) Midlands 4 East (South)	Durham/Northumberland 3 Yorkshire 3	Eastern Counties 1 Herts/Middlesex 1 Essex 1 Kent 1 Sussex 1 Surrey 1 Hampshire Premier	Somerset 1 Gloucester 1 Tribute Cornwall 1 Tribute Devon 1 Dorset & Wilts 2 North Dorset & Wilts 2 South Dorset & Wilts 2 Central
10	Midlands 5 West (North) Midlands 5 West (South)	Yorkshire 4 (North West) Yorkshire 4 (South East)	Eastern Counties 2 Herts/Middlesex 2 Essex 2 Kent 2 Sussex 2 Surrey 2 Hampshire 1	Somerset 2 North Somerset 2 South Gloucester 2 North Gloucester 2 South Tribute Cornwall 2 Dorset & Wilts 3 North Dorset & Wilts 3 South
11			Surrey 3 Hampshire 2 Eastern Counties 3 Sussex 3	Somerset 3 North Somerset 3 South
12			Surrey 4 Hampshire 3 Sussex West Sussex East	

English rugby union operates a hierarchical pyramid league system (open league) bound together by the principle of promotion and relegation, as per most European league structures (section 2.4.1). In a series of interconnected leagues, the highest level (1) is the English Premiership followed by the Championship (2), and then National leagues below. In a system of promotion and relegation, the best-ranked team(s) in a lower division, are promoted to the higher league for the following season. Similarly, the worst-ranked team(s) in a higher division are relegated to the lower league for the following season.

In the Championship, it is important to note that to gain promotion to the Premiership, a team must first meet the minimum standards criteria. Minimum standards criteria are in place to ensure Premiership Rugby clubs and promoted clubs have suitable facilities to protect player safety and welfare and to provide a good quality, safe environment for spectators. Each club and its nominated ground undergo an annual independent audit to assess compliance with the Minimum Standards Criteria. However, to meet the criteria, there are financial barriers. Criteria such as holding a minimum capacity of 10,000 fans means clubs need to invest in infrastructure. Regardless of a club's finishing position within a league, a team may only be promoted if requirements are met and therefore if the first placed team does not meet these, they will not be promoted.

To construct the league positions, points are allocated for a win and a draw with the losing team receiving no points. Within English rugby union, four points are awarded to a winning team and two points to each team if the result of the game is a draw. This game structure was implemented in the 2000-2001 season as the RFU had previously trailed two and three points for a win in previous seasons. What differentiates rugby union from other European sports is its inclusion of bonus points and the potential impact this has on overall league positions. In English rugby union, the addition of bonus points provides two opportunities where teams may be able to claim an additional league point. The first, if any team scores four or more tries in one given game, they are rewarded a bonus point added on to the original result. The second is only applicable to a losing team. If the losing team finishes the game within seven scoring points of the winning team, a bonus point is awarded to overall league points.

This is an important consideration for rugby union as bonus points directly impact the final league positions of teams. A team may lose all of their games but pick up every losing bonus point on offer. A league season of twenty two games would therefore see this losing side end the year on twenty two points even without winning a game. Due to the uniqueness of bonus points within this sport, they are a vital consideration when analysing competitive balance. Implemented as a governance policy to increase competition, bonus points are a crucial factor when identifying an appropriate measure of competitive balance and will therefore be considered in more detail in the methodology section of this thesis (chapter 5).

4.3 COVID-19 and its Impact on English Rugby Union

On the 23rd March 2020, the UK entered what has since been labelled as a global pandemic. COVID-19, the outbreak of the respiratory illness was first detected in Wuhan, China and consequently forced the world into a state of unknown. Following a Prime Minister's statement, the UK entered a national lockdown following procedures already taken by other countries. This lockdown changed not only the course of working arrangements, travel logistics and lifestyles but also saw a suspension to professional sport for the foreseeable future.

The COVID-19 pandemic disrupted all elite sports in England in spring 2020 and eventually led to the suspension of the Premiership and Championship seasons in rugby union. Having only previously been declared suspended, the Championship season was later declared cancelled in line with the other rugby union leagues within England's league structure. England Rugby (England Rugby: Coronavirus advice and support, 2022) have since identified coronavirus as one of the biggest challenges that rugby clubs have ever had to face with clubs at all levels losing out on match day revenue, secondary spending and much more.

4.3.1 The 2019-2020 Season

Despite other sports resuming earlier than rugby union, the 2019-2020 Premiership rugby season recommenced on 14th August 2020 and continued fixtures as normal. However, as part of a transition period, it was stated that there were to be no spectators at games and all games were to be played behind 'closed doors'. As of September 2020,

clubs were permitted to relax restrictions and abandon social-distancing measures during training and on matchdays providing they met the 85% threshold of players and staff having received two vaccinations (Meagher, 2021). In addition, the Gallagher Rugby Premiership reopened their doors on the 6th September 2020 at a 20% capacity further increasing to 50% until full capacity was reintroduced in March 2022.

It could be argued that the Premiership saw the least amount of disruption due to the fact they were still able to fulfil all of their games for the 2020-2021 season. However, Godwin (2021) suggests that England Premiership clubs previously lost around £90m in 2017-2018 season alone and this was therefore further exacerbated by the pandemic in 2020. Premiership rugby faces additional losses of around £88million due to the pandemic, therefore highlighting the huge impact this had on the game. With no fans allowed into games, there were no ticket sales or secondary spending to generate income for clubs. In addition, due to COVID-19 regulations, clubs had to invest into testing kits as well as new systems and procedures to ensure all of those involved were kept safe.

Unlike the Premiership, the Championship league and the leagues below were unable to fulfil their remaining games of the 2019-2020 season. Rather than playing the remaining games, these leagues, were concluded by using a best playing record formula to determine points and ultimately finishing position for each individual league. In an attempt to provide fair and balanced outcomes the RFU implemented a best playing record formula to maintain integrity and competition in the leagues as eighty percent of the season had been completed. This meant that promotion and relegation in leagues would still occur. The best playing record formula was firstly used to establish the average number of points (including Bonus Points) gained for all home games played up to the 16th March 2020 when the league was cancelled. This process was repeated for all future away games due to be played. The respective averages were then added to a club's points total for each outstanding home or away game. However, teams may feel at a disadvantage if they have already played the perceived better teams early in the season. When applying the playing formula for these teams, their accrued points at this point could be less. Alternatively, if teams have so far played teams they would expect to be in the lower half of the table, they may have a more favourable outcome with the formula. Whilst this approach may not be a perfect approach, it did allow the governing

body to identify a 'final points' table. It would be impossible to know what the scores would have been on the day and therefore the best playing record formula provides a close alternative.

4.3.2 The 2020-2021 Season

Having concluded the 2019-2020 season using the best playing record (other than the Premiership), the 2020-2021 season saw the Championship promoted side Newcastle Falcons return to the Premiership. They would replace Saracens in the Premiership who were relegated because of points deductions due to a breach of salary cap regulations (see section 6.5.2.).

Due to the COVID-19 pandemic, and the delay to the start of the 2020-2021 season, the Championship was truncated into a timeframe of just 16 weeks. Championship teams only played each other once in the 2020-2021 season, rather than twice, to produce a ten-round season. The top two teams would play each other in a two-legged play off where the winner would be promoted to the Premiership if eligible meeting the minimum standards criteria (page 65). Only eleven of the twelve teams competed in the 2020-2021 season. London Scottish were the only club who chose not to participate in the shortened season due to the financial consequences of compulsory COVID-19 testing brought into the league. This coupled with the fact there was no relegation this season saw London Scottish decide it was not financially viable to compete and instead will maintain their place in the Championship in the following year regardless of playing or not. The National League One 2020-2021 season (and lower) was cancelled and therefore there was no relegation from the Championship this year and no promotion from National League One.

It was important for all leagues that COVID-19 would not have any detrimental consequences in their decision to play or not play. A moratorium on relegation was approved in February 2021, meaning no teams would be relegated as a potential consequence of another team receiving more points due to games cancelled because of COVID-19. Teams competing in this season faced significantly higher costs due to the requirement of testing players, coaching staff, and match day staff. In addition, some teams took extra COVID-19 precautions costing their club even higher amounts of money. For example, Doncaster Knights, a Championship side, installed a sanitisation

tunnel at its stadium, Castle Park, to promote the safety of players, staff and eventually supporters (Dacey, 2020). In addition to the higher cost, clubs found themselves with less revenue, especially those without large broadcasting deals, due to the fact sport had to be played behind closed doors and therefore tickets could not be sold. However, it could not be said that teams, even with enhanced safety measures, would not prevent the spread of COVID-19 and therefore be unable to fulfil their fixtures.

4.3.3 Wider Effects of COVID-19

4.3.3.1 Financial

Financial reports released by the Rugby Football Union, identified that revenue was £97 million down from the £167 million the previous year due to the COVID-19 pandemic and the impact it has had on rugby union (England Rugby, n.d.). The Union generates 85% of its revenue from England men's international games at Twickenham but the 2020 Six Nations championship was played in empty stadiums and therefore the RFU collected no ticket sales or secondary spending. The report further suggested that to cover these lost costs, 119 redundancies within the governing body had to be made and remarked that it will take a number of years to recover from the loss (England Rugby, n.d.).

To counter the loss of revenue further, England men's squad accepted a twenty five percent pay cut with England Head Coach at the time, Eddie Jones being the first to accept the offer. Whilst it was originally thought this would be for a twelve month period, such huge losses could mean that the temporary twenty five percent pay cut could be permanent in a post-coronavirus world. Premiership players have also seen their wages reduce. Whilst current contracts are protected, this shift signals the prospect of long-term pay-cuts, so most players will only feel the effects in their next contract (Cole, 2020).

In addition, the financial impact of the pandemic also caused the salary cap to be temporarily reduced for a maximum of three seasons from the 2021–22 season. Premiership Rugby clubs have agreed to cut the salary cap limit by £1 million to £5 million over the next two years to attempt to minimise the cost of coronavirus (Premiership Rugby, 2020).

4.3.3.2 League Restructure

During 2020, it was announced by the RFU (2021), a new league structure would be implemented in the community game from the start of the 2022-2023 season, partly due to the COVID-19 pandemic, alongside other considerations. England Rugby (Future Competition Structure, 2021) identify four justifications for the change:

1. Putting player welfare/needs at the forefront of decisions
2. Ensuring a high quality of player experience
3. Supporting club sustainability
4. Minimising travel

All teams at a given level will be grouped together geographically to reduce travel times and distance. In the current league structure National 2 North team Luctonians RC based in Herefordshire travel five hours for their furthest fixture against Tynedale RFC. In the league below (Midlands Premier), where some teams are still considered as amateur, teams must commute between Sandbach and Scunthorpe, Oundle and Bridgnorth and Scunthorpe and Bromsgrove, all over two hours in each direction. Given that these teams are not professional, yet desire to be, the restructure may be a welcoming sign as a means of saving money. The restructure aims to promote more convenience in regard to travel and expenses regardless of a club's finances.

Another important issue highlighted by the upcoming changes is a shortened league season to address concerns shared by players around the intensity of the current league structure (Future Competition Structure, 2021). These changes are highlighted in table 8 below.

Table 8: League Changes for the 2022-2023 Season

1	Premiership – Increasing to 14 teams
2	Championship – No changes to be made at this level
3	National League One – Decreasing to 14
4	3 Leagues (as opposed to 2) each with 14 teams, implemented on a regional basis
5	6 Leagues (as opposed to 4) each with 12 teams, implemented on a regional basis
6	12 Leagues (as opposed to 8) each with 12 teams, implemented on a regional basis
7	Approximately 16 Leagues to be determined by Constituent Body (CB) boundaries
8	Approximately 20 leagues to be determined by Constituent Body (CB) boundaries
9	Level 9 and below will be determined by the relevant organising committee dependant on number of team entries and local need
*	*For Level 5 and below, a cup competition will be introduced upon completion of the league season to avoid fixture clashes

The Premiership is the only division to see an increase in number of teams and therefore an increase in number of games. The Championship league will see no change and will continue with twelve teams, all playing a total of twenty two games. All other leagues throughout the structure of England rugby union will see a reduction in the number of games played in one season as the number of teams playing is reduced. This makes room for less games to be allocated across the same number of weeks meaning more break-weekends for teams and therefore in turn giving time for players to rest and recover at given points in a season.

To ensure an additional team can be promoted to the Premiership, a review of the Championships minimum standards criteria for promotion will be reviewed alongside the restructure. The new structure extends the suspension on relegation for a further two-years and is expanded to include promotion into the league for the 2023–24 season.

A playoff between the top team in the Championship and the bottom team in the Premiership is also introduced in the 2023–24 season.

These changes have been introduced by the RFU as an attempt at making the whole rugby union league structure, more competitive and financial stable. COVID-19 has left the game in a position significantly different to how it was pre-pandemic as the RFU has substantially less money to filter down the league structure. Section 2.4 noted the impact of governance factors on competitive balance. A restructure by the RFU is utilised so that the sport is still operational, effective, and sustainable. In addition, it may impact competitive balance and will therefore be a consideration within the results and discussion chapter of this thesis.

4.4 English Rugby Union & The Salary Cap

Rugby union in England adopts a hard salary cap ensuring clubs competing with less financial underpinning, can compete on a more even playing field with the best supported clubs. It is the purpose of a salary cap that the freedom of some clubs, who could afford to do so, are curtailed by regulation on their spending on salaries. Premiership Rugby introduced a salary cap in 1999 with the aim of achieving the below objectives:

- ensuring the financial viability of all Clubs and of the Gallagher Premiership Rugby competition;
- controlling inflationary pressures on Clubs' costs;
- providing a level playing field for Clubs;
- ensuring a competitive Gallagher Premiership competition; and
- enabling Clubs to compete in European competitions

(Premiership Rugby, 2022)

Since its implementation, there have been significant changes to the salary cap aligned to the growth of Rugby. The first change occurred in time for the 2007-2008 season where the salary cap increased by £400,000 from the original £1.8 million cap to £2.2 million. After this, changes happened quickly and more frequently. The 2008-2009 season saw the cap nearly double to £4 million where it remained for the following three

seasons. From the 2011-2012 season, additional 'credits' were introduced allowing clubs to access extra funds if criteria were met. In seasons that run up against the quadrennial Rugby World Cup, a credit was allocated per player in the England squad. £30,000 was awarded to help manage a clubs reduced playing squad whilst international players were absent. The 2011-2012 season also saw an additional 'academy credit' introduced, allowing a separate £200,000 salary cap for its academy players whilst also allowing clubs to provide an unlimited educational fund to enable its players to pursue university or vocational training.

The 2012-2013 season saw the first change to the salary cap that was not necessarily financially orientated. Premiership Rugby implemented a similar format to the designated player rule seen in North American sports such as the Major League Soccer. Named as the 'excluded player', providing the player in question had played at least two full seasons with his current club or had played outside the Premiership in the season before his designation, each team could now sign one player whose salary did not count against the cap; these are noted as marquee players within the game of rugby union.

For the 2015-2016 season the two previously noted additional 'credits' changed again with the 'international player credit' increasing to £35,000 but the 'academy credit' decreasing to £100,000. Additionally, each club had a separate cap of £400,000 for use in signing replacements for players lost to long-term injuries (12 weeks or more). Whilst the salary cap saw little increase from the £4 million as per the 2008-2009 season, the extra income streams made available to clubs effectively saw an increase of the cap to around £5.5 million. To further this again, each team could now have a second 'excluded player'.

In the 2016-2017 the salary cap increased to a base of £6.5 million with a maximum 'academy credit' of £600,000. Additionally, an extra £80,000 credit was provided for each member of the England national team on the roster. During this season, Premiership Rugby announce an overrun tax on clubs that exceed the salary cap by more than 5%. On the 8th September 2016, it was announced that the base level of the Premiership's salary cap was to remain at £7 million through until the end of the 2019-2020 season (BBC Sport, 2016).

Most significant changes to the salary cap since its implementation in 1999, came in the 2020-2021 season where the cap was reduced for the first time in its history. Following a series of breaches made by Saracens that saw them fined and handed an automatic relegation (discussed later in this thesis), Lord Dyson and his panel reviewed the existing salary cap and deemed a deduction to be appropriate. The new regulation provided clubs with a limit of £6.4 million, including the additional 'credits', but this would further reduce to £5 million in the 2021-2022 season. Alongside this reduction, the world entered a global pandemic which effected sports in several ways (see section 4.3). The crisis exposed the fragility of Premiership Rugby's financial model (Cole, 2020) further enforcing the need for a salary cap reduction to ease the pressure on clubs and aid the losses incurred as a result of the pandemic.

Newspaper and media articles report propositions that the cap could return to the previous level of £6.4 million plus £600,000 academy credits (Scott, 2020) however, changes have also been agreed to the 'excluded player' dispensation which will be cut to just one player from the 2022-2023 season. The salary cap reduction will be in place until the end of the 2023-2024 season.

It is important to provide context of the salary cap when comparing with other rugby union nations around the world. On the 9th May 2022, Alex Sanderson, boss of Premiership team Sale Sharks suggested that the reduction in the Premiership salary cap is making it tougher for English teams to compete with French sides specifically but also teams in wider Europe (The salary cap of each rugby country revealed, 2022). Since the inception of the salary cap in English rugby union, there has always been a difference in the English cap compared particularly with the French therefore suggesting that English teams have less money to spend on high profile and quality athletes. For the New Zealand and Australian Super Rugby, the newly revised salary cap has been adjusted to a total of AUS\$5.5 million, a conversion of just over £3million GBP and is therefore less than the salary cap implemented by the RFU. However, the LNR (Ligue Nationale de Rugby) responsible for the governance of the French Top 14 have set their cap at €11.3 million per season, equating to roughly £10 million pounds sterling. The disparity between spending arrangements in rugby union is clear and should be considered when providing comparisons throughout this thesis.

4.4.1 Championship & Salary cap

The second tier of the rugby union league structure and below in England does not implement a salary cap and therefore teams are entitled to spend as much money as they want or can afford to get the highest calibre of players. However, this is not common practise. Firstly, most teams in the Championship are unlikely to have the finances to be able to do this. Championship rugby union does not operate in the same way as the Premiership and does not have the same level of funding. In addition, the Championship does not receive large broadcasting fees, or large sponsorship deals like the Premiership and therefore relies on lower spending costs to survive. Furthermore, complications can arise if teams are to be promoted from the Championship where there are no salary rules to the Premiership where regulations apply. Whilst it is unlikely that promoted teams would have the financial underpinning, unless having previously been in the Premiership, clubs must conform with the salary cap and meet the minimum standards criteria to make them eligible for promotion. Championship teams must therefore be mindful if they are close to promotion, as any overspending may mean they have to sell players or decrease salaries to compete in the highest tier of English rugby union.

4.5 Conclusion

A point to note for future discussion within this thesis are league names and titles. To avoid any confusion moving forward, when referring to the 'Premiership' this will acknowledge the top flight league in English rugby union. Similarly, when referring to the 'Championship', this is denoting the second-tier league and when referring to 'National league One' the third tier.

The game of rugby union has seen many changes since its professionalisation twenty-five years ago. The inclusion of bonus points in particular, provides a unique analysis of competitive balance not seen across other sports. In addition, rugby union implement a playoff system that has drastically varied and therefore the impact of this system needs to be included in competitive balance analysis. Finally, to promote competitiveness specifically, rugby union implement a typically North American salary cap as well as a typically European promotion and relegation structure. These elements are crucial in

the analysis when calculating how competitive elite men's English rugby union is and how these different approaches work in unison.

4.6 Summary of Literature

Given the volume of literature that has been analysed at this point in the thesis, this section provides a summary of chapters 2, 3 and 4 as well as identifying gaps that have appeared throughout. This will then progress the thesis into its methodology chapters identifying the thesis's philosophical underpinning, data collection methods and approaches to research. The study will then move on to discuss the data analysed and interpreted to identify the competitive balance of elite men's rugby union in England.

From the literature outlined above, there are a plethora of unanswered questions regarding measuring competitive balance and applying this to the sport of rugby union which has seen limited publications; therefore, creating a gap in academia. Rugby union provides a unique case study. Previous methods and approaches to competitive balance therefore may not be appropriate for this thesis. In addition, rugby union identifies many other challenges not seen in other sports such as the cross over between European and North American approaches, the use of bonus points and the ever-changing governance of the game. As one of the last major sports to turn professional in 1995, rugby union are chasing development potential to compete with other sports. This further justifies the need to study this sport and inform future rugby union policy to develop the game.

What this section has concluded is the 'best fit' approach to measuring competitive balance to ensure a justified approach in calculating competitive balance of the English men's rugby union leagues. Firstly, it is clear for the sport of rugby union the ACB line of analysis is best suited as the theory of UOH has been disproved on multiple occasions throughout these previous 3 chapters. Therefore, to encompass the appropriate measures this thesis will utilise win percentages, dominance analysis and HICB values to ensure all factors have been considered and appropriately applied to rugby union.

Finally, it is important to question why the element of competition in sport is required. With many contrasting publications in both the systematic review and narrative literature review, it is important to consolidate the need to analyse competitive balance. Many publications identify a need to strive for perfect competition, yet suggestions are

made that this is not realistic and instead an optimal level should be identified. This thesis will not only progress to identify a required level of competitive balance for rugby union in England, but in addition provide a qualitative insight to how these statistics apply in real-life application of competition in the sport. It is important to discover if these values produced by analysing competitive balance really matter to those in the game.

Chapter Five

Methodology

5.1 Introduction to Methodology

This chapter presents the methodology adopted for this study. Bell, Bryman and Harley (2019) state that to understand research and to conduct it effectively, it is important to engage with a body of knowledge that is commonly referred to as the philosophy of social science. Whether consciously aware of them or not, at every stage in research a person will make a number of assumptions (Burrell and Morgan, 1979). These include assumptions about human knowledge (epistemological assumptions), and about the realities encountered in an individual's research (ontological assumptions) (Saunders and Lewis, 2012). The understanding and acknowledgement of these assumptions allow for a credible and consistent philosophical approach to research which ultimately underpin methodological choices, data collections and analysis techniques. For this reason, philosophical considerations are provided at the forefront of this chapter.

5.2 Philosophy and Research

When undertaking a research project, it is considered essential to clearly outline the epistemological or philosophical basis for claiming to know what 'we' know; commonly referred to as a research paradigm (O'Gorman & MacIntosh, 2014). Kivunha and Kuyini (2017) explain this research paradigm as a conceptual lens through which the researcher examines the methodological aspects of their research project to determine the research methods that will be used and how the data will be analysed. Lincoln and Guba (1985) identify a paradigm to comprise of four elements: epistemology, ontology, methodology and axiology. Throughout much of the academic literature surrounding this phenomenon there is specific emphasis on the importance of researchers recognising and understanding their paradigm to clearly define their beliefs (Hussey and Hussey, 1997; Creswell, 2008; O'Gorman & MacIntosh, 2014). In locating research in a particular paradigm, the understanding is that research will be guided by assumptions, beliefs, norms and values of the chosen paradigm. For this reason, this chapter will discuss the four elements identified by Lincoln and Guba (1985) in order to demonstrate a full understanding of the paradigm this research sits within.

Although scientists and philosophers have debated epistemological questions since the time of Plato & Aristotle (428 - 384 BC), the term epistemology remains somewhat esoteric (Johnson & Duberley, 2000). Saunders, Lewis & Thornhill (2016) identify

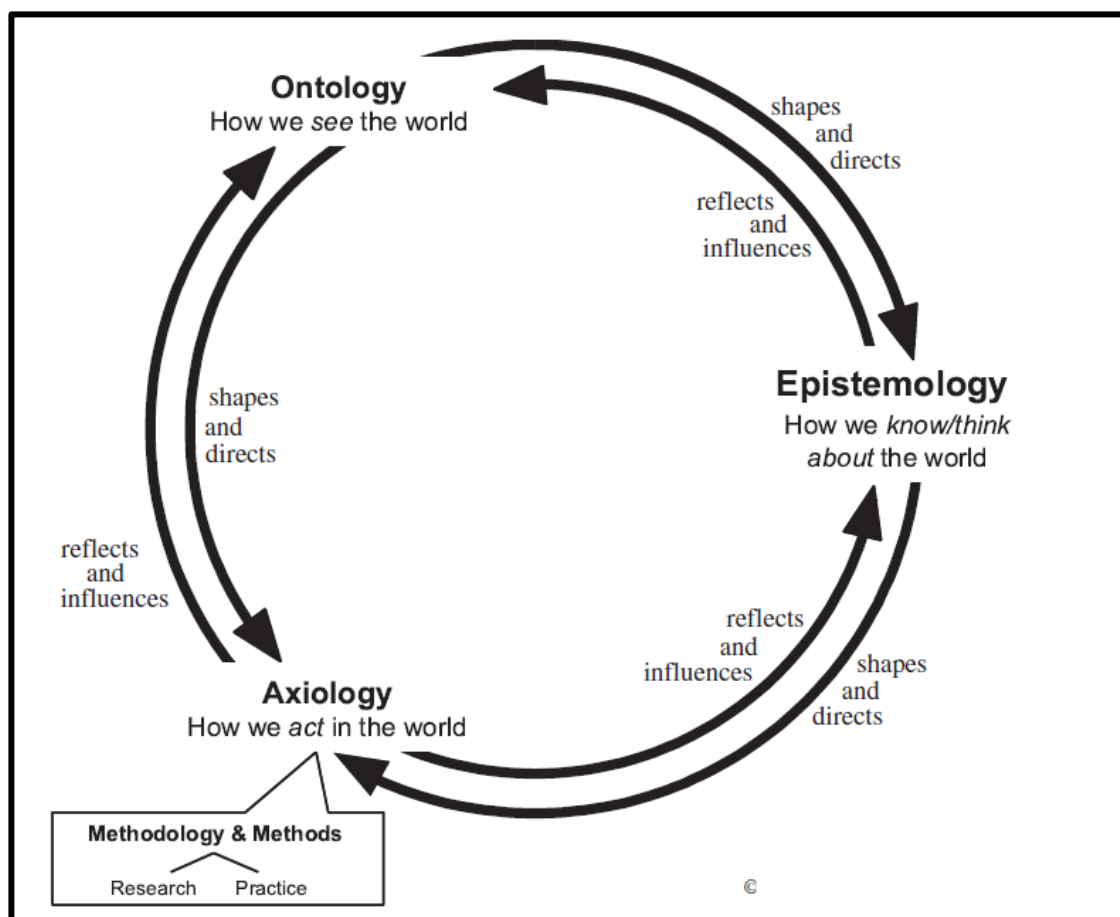
epistemology as the assumptions about knowledge, what constitutes acceptable, valid, and legitimate knowledge, and how we can communicate knowledge to others. Similarly, Gall, Gall and Borg (2003, p13) define epistemology as "the branch of philosophy that studies the nature of knowledge and the process by which knowledge is acquired and validated". Consideration of epistemological issues provides a means to ensure the knowledge produced is appropriate (Bell, Bryman, & Harley, 2019). The importance of epistemology can be understood by considering two positions: positivism and interpretivism. Positivism is an epistemological position that advocates the application of the methods of natural sciences to the study of social reality. This epistemological position believes that only phenomena (knowledge) confirmed by senses can genuinely be warranted and justified as knowledge. Interpretivism is a contrasting epistemology to that of positivism (Bell, Bryman, & Harley, 2019). On the opposite end of the spectrum, the term interpretivism emerges from writers who have been critical of the application of the scientific model (positivism) to the study of the social world. Bell, Bryman and Harley (2019) suggest this position is based on the view that a strategy is required that respects the differences between people and the objects of the natural sciences and therefore requires the social scientist to grasp the subjective meaning of social action.

Ontology, thereafter, is often referred to as the study of 'being'. It is concerned with the assumptions that are made in order to believe that something makes sense or is 'real'. It is the philosophical study of the nature of existence or reality examining the underlying belief system of the researcher. Likewise, ontology is the very nature or essence of the social phenomenon being investigated (Kivunha and Kuyini, 2017). Similar to that of epistemology, ontology can again be further understood by considering two positions: objectivism and constructivism. Objectivism is an ontological position that asserts that social phenomena and their meanings have an existence that is independent of social actors (Bell, Bryman, & Harley, 2019). This implies that the social phenomena and the categories that used in everyday life have an existence that is independent from actors. An alternative ontological position is that of a constructivist. A constructionism approach is often related to a postmodernist viewpoint (discussed in greater detail further into this chapter) and challenges suggestions that reality is external to the mind. Instead, a constructionist approach implies that social phenomena and categories are

not only produced through social interaction but are also in constant state of revision (Bell, Bryman, & Harley, 2019).

Crotty (1998) highlights the complementary nature of the term's epistemology and ontology, and notes that an ontological stance implies a particular epistemological stance and vice versa. Indeed, Johnson and Duberley (2000) believe ontological and epistemological assumptions are often closely aligned to one another. Ruona and Lynham (2004) show this in their philosophical framework (figure 2). Here, including the concept of axiology, the philosophical study of value, it is suggested that these critical components interact in a dynamic, multi-virtuous and systemic way to form a congruent and coherent approach to research whilst embedding philosophical understanding.

Figure 2: Ruona and Lynham (2004) Philosophical Framework

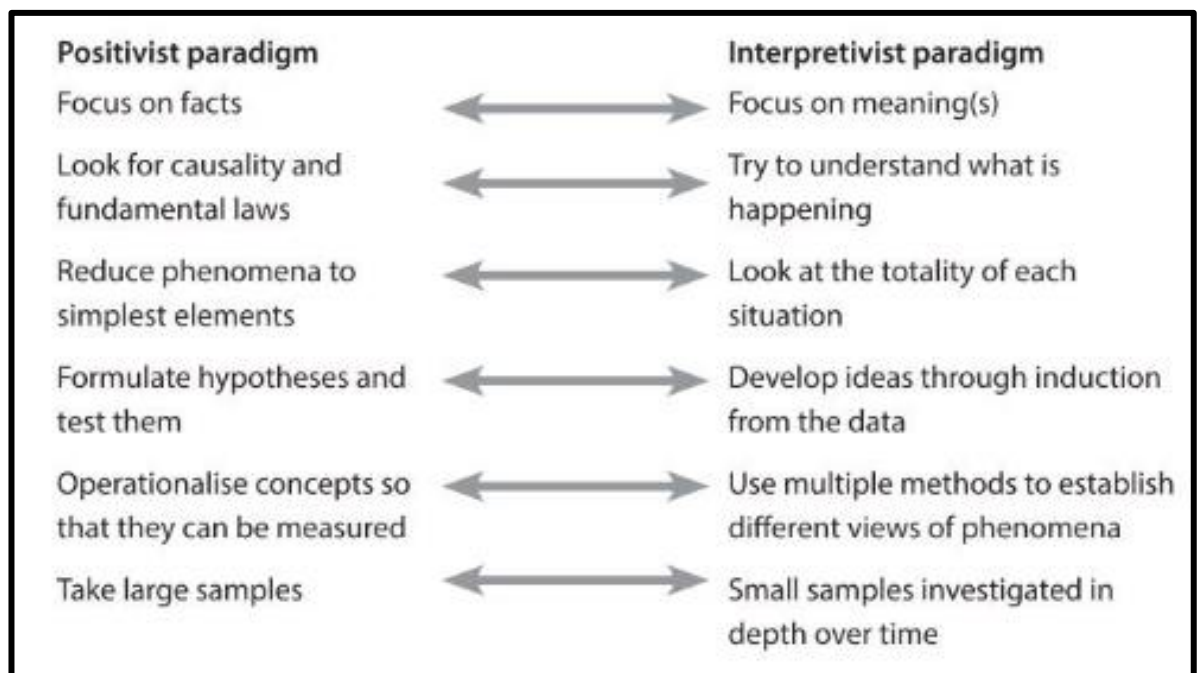


5.3 Research Paradigms

With epistemological and ontological assumptions in mind it is worth considering in more detail, the ideologies of research and how they apply to different research

paradigms. Many paradigms have been proposed by researchers over the years (Kivunha and Kuyini 2017). A glimpse at previous literature typically identifies two paradigms that sit on opposite sides of a continuum: positivist and interpretivist. Figure 3 shows extreme comparisons and goes some way to show the difference in assumptions of the two concepts. It is important to note the difference in philosophies that operate between these two extremes as well as consider those research paradigms that may operate elsewhere on this continuum.

Figure 3: Comparison of Positivist and Interpretivist paradigms



Source: (O'Gorman & MacIntosh, 2014).

Johnson and Duberley (2000) highlight the positivist paradigm as a significant starting point as they suggest "many aspects of positivism remain so embedded in Western cultures that they are virtually an aspect of our common sense" (Johnson and Duberley, 2000, p11). In fact, Gales (2010) identifies positivism as the dominant organisational research paradigm; therefore identifying an obvious starting point for this research thesis moving forward.

5.3.1 Positivist

The research paradigm position of positivism acknowledges the existence of a single, objective, known reality. Nineteenth-century French philosopher Auguste Comte (1853)

was the first person to encapsulate this view suggesting there can be no real knowledge but that which is based on observed facts. This statement contains two assumptions. First, an ontological assumption, that reality is external and objective and second, an epistemological assumption, that knowledge is only of significance if based on observations of this external reality (Easterby-Smith, Thorpe & Jackson, 2012). Positivistic research approaches start with a problem to generate a theory or a hypothesis to test, and then develop a researcher question from this. Positivistic research will specifically look for a cause and effect, for example, how does **A** affect **B**, whilst remaining neutral and detached from the research and data to avoid influencing findings. Additionally, a positivist philosophical stance relates to that of the natural sciences to produce law-like generalisations as an outcome of the work. It promises unambiguous and accurate knowledge and originates in the works of philosophers and scientists known as the Vienna Circle (Saunders et al., 2016). Today there is an incomprehensible array of positivisms (Crotty, 1998). As a 'pure' positivist, you would adopt an extreme approach to all points made above.

It is glaringly apparent that there is often an underlying commitment owing to the positivistic nature of the studies within sports business management research (Gratton and Jones, 2004). The positivist approach to research has its undoubted strengths, most notably in terms of its precision, control, and objectivity. Sports management researchers traditionally support the argument that there is hardly ever any doubt about the results obtained from positivist research and that through such precise control and measurement 'scientific' conclusions can be drawn (Jones & Gratton, 2015).

With this in mind, many authors acknowledge an approach to research that supports the idea that it is not possible to gain a truly objective understanding through measurement and observation as advocated by a positivist approach (Fischer, 1998; Jones & Gratton, 2015). Instead, a less extreme, post-positivist stance suggests there are limitations in attempting to complete objectivity which need to be recognised. The post-positivism stance within research has evolved from the idea that positivism cannot fulfil the requirements for social sciences (Panhwar, Ansari & Shah, 2017).

It can be argued that a post-positive approach balances both positivist and interpretivist approaches (Panhwar et al., 2017). It focuses on researching issues in the context of

involving experiences of the majority and announcing the results of what the majority says is acceptable (Fischer, 1998). Along with quantitative analysis, the post-positivist approach includes the perspectives of historical, comparative, philosophical and phenomenological analysis. Although the post-positivist research scientifically strives to explore the phenomena, it believes, unlike positivist research, that the absolute truth is nowhere to be found (Panhwar et al., 2017).

Post-positivism does not aim to disapprove the scientific quantitative elements of positivism in the research, rather it emphasises a proper understanding of the directions and perspectives of any research study from multi-dimensions and multi-methods (Guba, 1990; Fischer, 1998). The post-positivistic paradigm promotes the triangulation of qualitative and quantitative methods that explores the diversity of facts researchable through various kinds of investigations but respecting and valuing all findings as the essential components for the development of knowledge (Clark, 1998; Fischer, 1998).

Eisner (1991) notes that even though the philosophy of science has moved somewhat away from positivism to a wider understanding of science and knowledge, there still is little agreement about defining science. As well as this, the positivist approach may be well suited for sport research when considering disciplines more aligned with the natural sciences such as biomechanics. However, to most, sport is considered a social phenomenon. For this reason, it is essential to have awareness that those who have an interest in sports are acted upon by external forces and are not inanimate objects whose behaviour can be understood in terms of causal relationships (Jones & Gratton, 2015).

5.3.2 Interpretivist

Established by the extreme critique of positivism is the development of the interpretivist approach to research and, unlike the post positivist critique, is formed from a subjectivist perspective. Interpretivism emphasises that humans are different from physical phenomena because they create meaning (Saunders et al., 2016). Interpretivism involves researchers to interpret elements of the study, and therefore integrates human interest. Consequently, interpretive researchers assume that access to reality is only through social constructions such as language, consciousness, shared meanings, and instruments (Myers, 2008).

Interpretivists are critical of the positivist attempts to discover definite, universal 'laws' that apply to everybody (Saunders et al., 2016). Instead, this approach takes into consideration the differences between individuals as they experience different social realities (Saunders et al., 2016). The interpretivism paradigm considers meaning, understandings, and interpretations of social contexts; the opposite approach to that of a positivist stance noted above. The interpretivist philosophy places emphasis on the importance of qualitative analysis over that of quantitative analysis. An interpretative approach therefore may be able to describe and explain relationships from the viewpoint of those being investigated rather than stating effects and relationships. Likewise, there is a significant association with the philosophical position of idealism used to group diverse approaches such as social constructivism, phenomenology, and hermeneutics, all of which reject the objectivist view seen within other research paradigms (Collins, 2010).

It is important to note that positivism or interpretivism are not the only paradigms a researcher may position themselves within. Alternative approaches (to name just a few) include critical realism, post-positivism, postmodernism, and pragmatism and whilst some may see similarities in some of these approaches, each alternative paradigm offers a different blend of ontological and epistemological assumptions. All these alternative approaches fall somewhere between positivism and interpretivism on the continuum identified in figure 3. These approaches are not identified as an influencing factor of the author's research as the author will use quantifiable data to find a cause and effect in English rugby union and therefore little or no emphasis is interpreted. Approaches such as a post modernistic, interpretivist paradigms often undertake exploratory research meaning a general area of an industry is explored without relating to a specific question; if a question was to be developed, this would come after the data analysis of the exploratory work (Hallebone and Priest 2009); highlighting that this approach is less relevant to the study in question as the author has an area of focus.

5.4 Research Approach

The selection of a research approach is based on the nature of the research problem and is informed by the philosophical assumptions of the researcher. Hallebone and

Priest (2009) identify that, whilst it is common to classify research as qualitative or quantitative, there is a much more fundamental and important distinction to be made. This section will identify the difference between a deductive approach to research and an inductive approach to research. This will then lead on to explore what are considered to be the main three approaches to research; quantitative, qualitative and mixed methods (Smith, 2010; Jones & Gratton, 2015; Skinner et al, 2015; Saunders et al., 2016).

5.4.1 Deductive versus Inductive

The relevance of hypotheses to a study is a distinctive theme between deductive and inductive approaches. Saunders, et al., (2016) suggest a research project will either be designed to test a theory or to develop a theory.

A deductive approach is concerned with developing a hypothesis based on existing theory, then designing a research strategy to test the hypothesis through the collection of data. This approach is often associated with scientific investigation as it looks to answer a more specific inquiry. Likewise, deductive research is more generally associated with positivist and quantitative research (Jones & Gratton, 2015). Hussey and Hussey (1997) identify deductive research as a study in which a conceptual and theoretical structure is developed to create a hypothesis. This hypothesis is then tested by empirical observation and finally the hypothesis is either confirmed or rejected.

Despite the dominance of the deductive approach, it has been challenged more recently in several fields (Woiceshyn & Daellenbach, 2017). Woiceshyn and Daellenbach, (2017) suggest that deductive reasoning does not adequately capture how people think, neither does it capture how people respond to their environments resulting in the 'scientific method' being left unexplained.

Inductive research therefore provides an alternative to that of deductive. This approach does not involve formation of a hypothesis, as instead, it starts with general observations, which in turn develops the study's research question, aims and objectives. An inductive approach is intended to allow meanings to emerge from data as you collect them to identify patterns and relationships to build a theory (Saunders et al., 2016) and therefore typically follows an interpretivist philosophy towards its research. This research approach would enable the researcher to get a feel of the external

environment and context and thus allow a better understanding of the nature of the problem.

Whilst it is possible that both approaches may reach the same conclusion and theory, this thesis moves away from the traditionally dominant deductive approach. A deductive approach will be maintained through the data collection of quantitative research however, a hypothesis will not be formed. Instead, once the data is collected, general observations and calculations will be made.

5.4.2 Quantitative verses Qualitative Research Methods

Quantitative research methods were originally developed in the natural sciences to study natural phenomena. Examples of quantitative methods, now well accepted in the social sciences, include survey methods, laboratory experiments, formal methods, and numerical methods (Aliyu, Singhry, Awuya, & Abubakar, 2015). Skinner et al., (2015) furthers this and suggests quantitative research is a type of research in which the researcher decides what to study, asks specific, narrow questions, collects quantifiable data, analyses these numbers using statistics and attempts to conduct the inquiry in an unbiased, objective manner. As a rule of thumb, quantitative research is often associated with deductive approaches: testing existing theories by using them to make predictions that can then be compared as impartially as possible (Skinner et al., 2015). For this reason, and the use of numerical measurement, quantitative research methods are closely aligned to the positivistic approach to research. However, Skinner et al., (2015) argue that it is often very difficult to conduct controlled experiments in the sport management setting. The increasing number of variables now included within the sport management field may mean it is difficult to examine relationships numerically and statistically. Instead, other options may be plausible.

An alternative to the traditional form of quantitative research is that of qualitative research (Skinner et al., 2015). Qualitative research methods were developed in the social sciences to enable researchers to study social and cultural phenomena. This approach highlights the importance of the participant view and the context in which the participants expressed those views. Qualitative data sources include observation and participant observation (fieldwork), interviews and questionnaires, documents and texts, and the researcher's impressions and reactions (Myers and Avison, 2002), and are

often encompassed within action research, case study research and ethnography. This approach often incorporates meanings that are not quantifiable such as thoughts feelings and experiences in order to gain an understanding of beliefs, experiences, attitudes and behaviours. Although once viewed as philosophically incongruent with experimental research, qualitative research is now recognised for its ability to add a new dimension to interventional studies that cannot be obtained through measurement of variables alone (Gibson, Timlin, Curran & Wattis, 2004).

Many authors (Cavaye, 1996; Darke et al., 1998; Hussey and Hussey, 1997; Lee, 1991; Miles and Huberman, 1994; Myers and Avison, 2002) have commented on the choice between qualitative and quantitative methods in research over the years. However, more recently, it has been noted that there is no one best research approach; particularly within sport management (Skinner, Edwards & Corbett, 2015).

Both approaches have different strengths and different weaknesses. From a qualitative perspective, its strengths allow the researcher to translate peoples individual experiences into usable data as well as focusing on the purpose of a decision instead of the details. However, there will always be a subjective quality to the data that is gathered in this approach. Some researchers may believe that certain points are more critical to their findings than others. Likewise, it does not offer statistical representation as it seeks to find commonalities rather than statistics and percentages. On the other hand, quantitative data also has its disadvantages. Quantitative research can sometimes lead to results that are very different from those exposed in real-life due to the lack of human element. The false focus on numbers can sometimes limit the vision of the data as it aims its focus on statistical relations. It is however a much quicker data collection methods that allows for repeatable and trustworthy results enhancing the validity of the data. It is for these reasons that a mixed method approach to research has been developed.

5.4.3 Mixed Methods

Many academics have a differentiating definition of 'mixed methods research' (Gray, 2014; Yin, 2006; Cresswell, 2003). It is apparent that researchers see mixed methods approaches as a mixture of quantitative and qualitative methods. This approach allows researchers to generalise from a sample population and gain a richer, contextual

understanding of the phenomenon. Gray (2014) promotes the rationale for mixed methods research and suggests it increases the validity of constructs by capitalising on inherent method strengths. In addition, mixed methods approaches increases the breadth and depth of inquiry results and interpretations by analysing them from different perspectives of different methods and paradigms. Finally, a combined approach can often increase the scope of inquiry by selecting the methods most appropriate for multiple inquiry components.

Tahakkori and Teddie (2010) suggest recent evidence of the growth of mixed methods research, notably in the field of social sciences and business management. Supporters of the mixed methods approach promotes doing 'what seems to work' to investigate, predict, explore, describe and understand the phenomenon. That quantitative and qualitative research approaches are not only compatible but also complementary and underpins the need for continued research studies that deploy mixed methods (Johnson & Onwuegbuzie, 2004; Tashakkori & Teddlie, 2010). It is also argued that by using a range of different methods within the same study, the researcher will increase the validity and generalisability of results and the potential theoretical contribution (Easterby-Smith, Thorpe & Jackson, 2012). The sceptics however, point to the practical limitations such as the competence of researchers in conducting different methods. Additionally, there have been arguments about the relative merits of paradigm choices drawn from quantitative versus qualitative methods, positivism versus interpretivism, and whether it was naïve (or worse) to mix or attempt to use techniques drawn from paradigm extremes (Mitchell, 2018).

One form of mixed method design that can be successfully utilised by the sport management researcher is triangulation mixed methods. In a triangulation study, the researcher gathers both quantitative and qualitative data, analyses both datasets separately, compares the results from the analysis of both datasets, and makes an interpretation as to whether the results support or contradict each other. The direct comparison of the two data sets by the researcher provides a more reliable perspective on the problem being studied: a 'triangulation' of data sources (Skinner et al., 2015).

When considering a mixed methods approach, regardless of whether that is quantitative or qualitative, a researcher must identify how the research will be collected, analysed,

and interpreted. It is possible, using triangulation that these two data types could be combined, however both approaches also have credit individually.

5.4.3.1 Secondary Data

In a time where vast amounts of data are being collected and archived by researchers all over the world, the practicality of utilising existing data for research is becoming more prevalent (Johnston, 2014). Jones and Gratton (2015) state secondary research refers to research where no such original data is collected; instead, the research project uses existing sources of data that can be reanalysed to answer a different research question.

Veal (2006) further suggests that it may be wise to use existing information rather than embarking on expensive and time-consuming new data collection exercises. There are also many other suggestions by academics (Church, 2001 & Perez-Sindin, 2017) who emphasise a wide range of benefits when utilising secondary data. Doolan and Froelicher (2009) suggest that this approach to data collection ensures a low-risk nature of the study. Davis-Kean, Jager, & Maslowsky, (2015) identify the data sets collected using secondary data analysis can enhance science and test theories by increasing the rigor and generalisability of research to the general population, making secondary data analysis an important method to consider. Finally, Veal (2006) identifies a concept of 'serendipity' allowing the researcher to re-analyse secondary data multiple times allowing a constant search for new findings that may not be feasible with other data collection methods.

With this in mind however, limitations of secondary data analysis must be considered. To complete secondary data analysis, researchers must have the ability and resources to identify, locate, and access appropriate or desired databases (Aponte, 2010). Supporting this, the researcher must then have the skills to evaluate the quality of the data and appropriately address the research question. Additional considerations need to be made as to when the data was originally published, as this may be now out of date (Aponte, 2010).

5.4.3.2 Primary Data

Interviews are commonly seen as a main primary data collection method (Hallebone & Priest, 2009; Wahyuni, 2012; Jones & Gratton, 2015; Saunders et al., 2016). Saunders et al., (2016) identify that a research interview is a purposeful conversation between two

or more people, requiring the interviewer to establish rapport and ask concise and unambiguous questions. Specifically, a semi-structured interview is a type of interview which lies in between a structured interview and an in-depth interview (Saunders et al., 2016). Therefore, it offers the merit of using a list of predetermined themes and questions as in a structured interview, while keeping enough flexibility to enable the interviewee to talk freely about any topic raised during the interview (Wahyuni, 2012).

5.5 Research Strategies and Choices of the Thesis

Having considered all of the above information regarding different ontologies, research designs and approaches, the research strategies of this thesis are presented. The use of secondary data collection and analysis is essential for this study. It allows a systematic method with procedural and evaluative steps in an environment centred on numerical figures and statistics. The secondary data collection utilised league tables for English rugby union over the past twenty-five years since its professionalism. As this is already in the public domain, there is no need for the researcher to collect primary data for this. This method aligns to the positivist approach to research that the large majority of publications in competitive balance literature sits within due to its scientific nature and therefore will allow this thesis to be credible in this research field. However, sport is not a black and white concept and looking for statistics cannot be enough. It is important to determine what these statistics mean in the real-world and how they are applied to the unique and ever-changing nature of sport. For this reason, secondary data collection was supported by primary data after the original analysis took place. Secondary data was used to underpin primary research ensuring there is a direct link from one to another. Industry professionals were interviewed, and league table results were discussed at this point in order to triangulate findings.

The use of triangulation within this research thesis and involving primary data in a largely secondary study not only allows for a more in-depth analysis, but also allows the researcher to have a higher level of control in terms of specific information collected. To ensure a post-positive, objective stance, the interview questions were formed based on the analysis of the secondary data. Unlike a structured interview, it is not important that these questions are asked to participants in the same order or that quantifiable data is

collected. However, it is important the researcher has a list of questions that need to be covered and that most of these questions are answered (Saunders et al., 2016). This type of interview allows for the quantitative data to be further explored by open discussion, which will be captured by audio-recording for the researcher to transcribe. This dialogue can then be themed and coded to maximise the output of the primary data.

Easterby-Smith, Thorpe and Jackson (2012) highlight the importance to consider research from both positivist and constructionist epistemologies, as well as the importance to combine both qualitative and quantitative methods in the same study. This research thesis ensures that both approaches complement one another by using the quantitative secondary data to identify key themes. It is these key themes based on the findings that were discussed in interviews. By using a range of different methods within the same study, it has increased the validity and generalisability of results and the potential theoretical contribution (Easterby-Smith, Thorpe & Jackson, 2012). This combined, mixed method approach means the research cannot align to a pure positivist paradigm. The researcher acknowledges that there is more to competitive balance than statistics and numbers, facts and figures. Instead, page 84 identified how post-positivism does not eliminate the scientific elements of positivism and instead emphasises multi-dimensions and multi-methods allowing for different perspectives. In addition, previous post-positivistic studies promote a triangulation approach; ultimately justifying a post-positivist paradigm for this thesis.

The sceptics however, point to the practical limitations such as the competence of researchers in conducting different methods. Additionally, Mitchell, (2018) identifies the risk of mixing paradigm extremes. It is therefore crucial that full understanding of research approaches were held before data was collected. This thesis provides a post-positivist approach throughout, ensuring that even the systematic review, aims and objectives and research problem (see page 7) were conducted objectively, with as much precision and control to increase the validity of the findings and results.

5.6 Methods

After considering many of the research approaches available, this thesis will adopt a mixed methods approach and therefore the following section will outline the research process.

5.6.1 The Process of Collecting Quantitative Data

Firstly, secondary data was collected for the top three divisions of the elite English men's rugby union leagues. Final league tables for the Premiership, Championship and National League One were collected for the past twenty-five seasons starting when English rugby union turned professional in 1995. These were collected from England Rugby's fixtures and results page (England Rugby, 2021) where possible, and any missing data was collected from archives within the sport. The first league season after professionalisation was the 1996-1997 season and therefore this is the first data set of the thesis. Values associated with games played, games won, games lost, bonus points, final points scored, and many others were essential for inclusion to ensure as much data as possible was available for analysis. This data is free to access and easy to locate providing the author with the maximum amount of information with relative ease. It is vital that the data collected is rigorous and valid to increase the contribution of the overall research. Once gathered, data was stored and collected on an excel file on a password protected laptop.

Analysis of this data collection uses existing measures identified in section 2.4.5.4.1 using Excel and SPSS (a statistical software suite). Section 2.4.5.4.1 highlights the vast number of measures available for this study however, confirms an ACB line of enquiry. For this reason, measures such as revenue sharing are not relevant as English rugby union does not operate as a profit maximiser. In addition, the relative standard deviation, whilst used frequently in past literature, was not utilised due to its common application to short term competitive balance rather than a long twenty five year period.

Instead, HICB values were firstly calculated. The HICB index represents a value of 100 in a perfectly balanced league. Averages of HICB scores were calculated to compare the Premiership, Championship and National One leagues to identify a 'most competitive' league. This was therefore identified by a leagues value, closest to 100. A rise in the index signifies an increase in inequality and therefore the league who's HICB value was

the highest represents the least balanced division. This analysis was followed by a closer look at leagues on an individual basis. HICB values were calculated for each season and trend analysis was undertaken. This allowed the research to see which years achieved a 'more' balanced status to enable the researcher to descriptively search for justification of this. This approach was carried out for all three leagues analysed. To further the HICB analysis, values were calculated by removing bonus points from the calculation to identify the effects of bonus points on competitive balance across seasons. This standardised method enables reproducibility and an objective stance further supporting the alignment of the author's philosophies underpinning the research.

Identified in figure 1 within the systematic review, the Herfindahl-Hirschman Index is a common measure of market concentration of an industry which authors have adapted over the years to analyse competitive balance in sport; HICB is one of these adapted measures. Having highlighted why HICB will be used within this thesis, it is also important to state why this method is appropriate over other adapted approaches. Firstly, HHI in its purest form would not have worked as an effective measure due to the varying number of teams within a rugby union league structure. HHI is sensitive to changes in the number of teams across a league and therefore HICB adapts this index and aims to resolve this problem. Another variation of HHI is NHICB. The author is aware of this more recent approach to measuring competitive balance due to their ongoing interest within the industry. However, publications utilising NHICB as an appropriate measurement of competitive balance have been published since the conclusion of the literature review which was used to inform the methodological choices of this thesis. Whilst this measure utilises a normalised version of HICB to facilitate a like for like comparison for leagues consisting of different number of teams, and could have been beneficial to the study, it is important that the rigor of the systematic review is not undermined. In addition, the interpretations for the NHICB index is the same as HICB (Plumley et al., 2022) and therefore only a marginal difference in values may have been presented.

To develop an insight into the effect of bonus points, further descriptive analysis looked into all twenty five seasons for each of the three elite leagues. End of year points scored in a normal season (including bonus points) were analysed and calculations were made to remove the additional points collected by teams through the bonus point system. This

allowed an overview of each season, with and without bonus points to again identify trends and patterns.

Next, Win Percentages were used to determine dominance within leagues. The winning percentage is a ratio between wins and total attempts and is calculated by: **Number of Wins/Total Games Played x 100**. Here, there is specific focus on the 'top' finishing team and their win percentage score, and the 'bottom' finishing team and their win percentage score to provide an insight into these two key finishing positions within a given league. Trends were analysed along with average calculations taken to inform future competition in each specific league.

Williams (2012) highlights the importance of considering distribution of Premiership. As Williams (2012) only considers the top division of English rugby union, this thesis measures distribution of titles in each of the three elite leagues. Here descriptive factors were used to calculate number of wins, as well as identifying single winners of each competition. The measure utilised by Williams (2012) considers a sequence of 1's to measure league dominance and therefore to align to this existing literature, section 6.4.2 considers this measure in its analysis.

Finally, descriptive statistics are crucial for this thesis due to the uniqueness of the sport. Consideration was given to the playoffs, the salary cap and European and international competition and their individual effects on the competitive balance. Trends were identified and patterns were further explored. Anomalies were then highlighted to gain a full and representative overview of competitive balance in English rugby union. Since existing competitive balance papers on rugby union (Williams, 2012; Hogan, Massey & Massey 2013; Hogan & Massey, 2018) have not looked at these leagues over such a long time period, it was not possible to replicate previous studies and therefore this specific data collection and analysis will fill this gap in research.

Once completed, findings from the secondary data collection and analysis informed a primary data collection gathering qualitative research from industry experts to triangulate the findings. Information was collected through semi-structured interviews allowing interviewees to talk openly about the provided key themes of bonus points, the salary cap and the playoffs. Through selective sampling, potential candidates were invited to participate. Background information was provided before an official

participant information sheet was sent via email. This was accompanied by a consent form (both approved by Sheffield Hallam Universities Ethics team) which candidates needed to complete before the interview took place. Interviewees are from within the sport and have knowledge about key topic areas such as bonus points, playoffs, the salary cap and how these may impact the game. Job titles of these candidates are provided below:

- A domestic journalist who specialises in rugby union
- A CEO of a Premiership rugby union club
- A current player and Head of Communications of a championship rugby union club

Interviews took place via Microsoft Teams to firstly minimise any risks that may still be associated with the COVID-19 pandemic but also for ease of logistical planning as these three interviewees are based in different locations of the United Kingdom. Semi-structured interviews allowed the researcher to present a theme but also probe further questioning to seek clarification if required. The interview began with a definition of competitive balance to ensure alignment to the research topic area. The below questions identify key areas of interest for the researcher based on the findings of the quantitative data analysis:

- Do you think rugby union is competitively balanced?
- Do you think *your* league is competitively balanced? (If appropriate)
- Many factors influence the competitiveness of rugby union, could you share your thoughts on the below:
 - Salary Cap
 - Bonus points
 - Playoffs
 - Is there anything in *your* league (if appropriate) that increases competition?
- With all things considered, what does the future competition of rugby union look like?

Questions remained broad and therefore open to interpretation of the interviewees. Additionally, questions were aligned to the interviewees area of expertise, for example,

if currently working in the Premiership, questions were framed to ask not only how they may think bonus points affect rugby union as a sport, but also the Premiership specifically. Interviews were recorded in order to be transcribed (see Appendix 1, 2 & 3) ensuring appropriate analysis. Codes, themes, patterns, and causal relations will inform further discussion within the results chapter of this thesis. From a post-positivist paradigm, it was essential the researcher eliminated all possible bias, therefore reiterating the importance of the quantitative statistics informing the qualitative data.

Whilst it is important quantitative data collection and subsequent analysis informs the qualitative data collection and analysis, it is also important that the qualitative data analysis contributes to the objective: To inform future policy decisions regarding league structure and composition and regulatory practices (page 7). The inclusion of interviews in this thesis provides invaluable insight and ensures a fundamental contribution of the PhD by exploring competitive balance using an approach, never utilised by academics.

5.6.2 The Process of Collecting Qualitative Data

Often in a highly quantitative study, focus is maintained on statistics however, with sport being the social phenomena that it is, not everything translates so easily into numbers. It is therefore important that this thesis considers the real-life application of those statistics extracted from the results (Skinner et al., 2015). To support the findings generated through secondary data analysis above, this thesis has also involved interviews with high profile participants in the field of rugby union.

Face-to-face interviews are one of the most effective procedures used by the sport management researcher (Edwards & Skinner, 2009). Furthermore, Edwards and Skinner (2009) identify that within sport management, a combination of the funnel principle (Judd et al., 1991) and the topical sequence method (Stewart & Cash, 1994) should be used to overcome some of the disadvantages usually found from semi-structured interviews.

Both the funnel approach and the topical sequence method were taken when constructing the interview script allowing the author to present the themes found in the quantitative data. These approaches allow for a natural discussion of the topic presented to the interviewees whilst also allowing the interviewer the freedom to probe

answers and adapt to any response the participant may give. Before interviews were undertaken, the semi-structured interview script was presented to the supervisory team to check for consistency between the interviewees. By utilising this interview script, it ensured consistency across all interviews to aid the reduction of bias in the qualitative data collection.

A total of three candidates were recruited to provide comments and further critical analysis on the three themes identified as key competitive balance factors: the playoffs, the salary cap and bonus points; alongside other topic areas that arose from conversation. These three candidates were recruited using selective sampling in a timely manner following the conclusion of the quantitative data analysis. By selecting candidates known to the researcher, it ensured that the process had a variety of participants within the field of rugby union. However, it was important that the researcher remained neutral when discussing topics and maintained objectivity throughout the process to reduce bias. Saunders, Lewis and Thornhill (2016) identify the minimum number of semi-structured interviews required when conducting a purely qualitative study as five; a quantity that is also supported by Creswell (2013). For this reason, and due to the large scope of quantitative data, a number of three interviews was deemed appropriate by the researcher and the supervisory team. Furthermore, the specialisation in expertise and knowledge possessed by the selected candidates made participants uniquely qualified to provide in depth insights on the key themes and topic areas; providing meaningful and appropriate outcomes related to the PhD. To avoid data saturation, yet ensure rigor and validity, a number of three participants was deemed suitable for the PhD.

Three participants from within the rugby union industry have contributed to this study. All three participants are heavily involved in a rugby union environment either through journalism, management or playing and are therefore knowledgeable about the topic areas discussed with them. Below details each participant and their corresponding title. However, this remains brief to ensure the anonymity of the participant. Here they are also identified as participant 1, 2 or 3 so that the author can recall quotes from their interview throughout this analysis without revealing their identity. All interviews with participants have been transcribed and are included in appendix 1-3.

Participant 1 – A domestic journalist who specialises in rugby union

Participant 2 – A CEO of a Premiership rugby union club

Participant 3 – A current player and Head of Communications of a Championship rugby union club

The interview began with a definition of competitive balance to ensure a fundamental understanding of the concept before moving forward with the interview. From this, the participants were asked to discuss this in the concept within rugby and if they think the leagues are balanced to a position where no one team has an unfair advantage. The definition is provided below:

Competitive balance refers to balance between the sporting capabilities of teams. It includes a concept known as the uncertainty of outcome suggesting that the more unpredictable score lines are, the more attractive the league is. Specifically, it is the situation in which no one club/team competing within a league has an unfair advantage.

5.7 Ethical Considerations, Reliability, Validity & Limitations

Throughout the planning stages of the research, decisions were made to optimise the quality of the data collected and the credibility of the findings (Locke, Silverman, & Spirduso, 1998). Two key concepts needing specific consideration included reliability and validity. "Reliability and validity are central to judgements about the quality of research in the natural sciences and quantitative research in the social sciences" (Saunders et al., 2016, p202). Whilst validity refers to the correctness or precision of the research, reliability refers to the replicability of the research findings; both scrutinising a piece of research and how 'true' it may be (Jones & Gratton, 2015).

5.7.1 Reliability

Reliability refers to the extent to which the same answers can be obtained using the same instruments if the research were to be repeated. An important consideration here however, is that reliability does not ensure accuracy (Babbie, 2013) as there is no assurance over the observer's subjectivity within the research. Furthermore, Johnson

and Duberly (2000) suggest reliability is a key issue for those of a positivist persuasion. Essentially, reliability is concerned with the consistency of results obtained in research. Johnson and Duberly (2000) go on to suggest four threats that may impact the reliability of a study; subject error, subject bias, observer error and observer bias. Therefore, from a post-positivist approach to research, it is crucial to reduce these threats in order for the research study to discover 'truth'.

Reliability is achieved within this thesis firstly through the use of a systematic literature review to inform the methodological choices of the PhD. Should any person wish to replicate this study, and gain consistent results, the same papers would be returned through the literature review process. Secondly, both the quantitative and qualitative analysis have utilised research instruments clearly documented in section 5.6. When considering quantitative analysis, reliability will be assured as competitive balance measures can be repeated at any point with the same data. Win percentage values, total number of league wins, and HICB scores to name a few are not subject to the researchers opinion and therefore will be consistent when repeated in the future. To repeat the qualitative analysis others should use the same interview script utilised on all three candidates for consistent results.

5.7.2 Validity

Whilst there are many forms of validity (Cohen, Manion, Morrison & Morrison, 2007), the overarching concept refers to the extent to which an empirical measure adequately reflects the real meaning of the concept under consideration (Babbie, 2013). It is concerned with the extent to which an independent variable causes a particular outcome. However, similar to reliability, validity has multiple threats that may cause the validity of a research project to be scrutinised. Johnson and Duberly (2000) identify the selection of participants, history of a participants environment, the testing process and regression as areas that could impact the validity of research.

To ensure validity, triangulation of the data is a significant factor to promote this. It is crucial that the quantitative study informs that of the qualitative to reduce researcher bias. In addition, appropriate participants have been recruited for the qualitative data ensuring confidence in the output and trustworthy discussions not influenced by outside variables. This in turn also increases the reliability of the study.

Reliability and validity are often used interchangeably. However, it is important to note that a study may be reliable but not valid, or valid but not reliable. It is important both concepts are considered early on in the research process in order to maximise every opportunity of increasing the two concepts. Additionally, the two concepts need to be used together to have a positive impact on the research undertaken.

5.7.3 Ethics

Ethics are critical aspects for the success of any research project (Saunders et al., 2016). Whatever research design, sampling techniques, and choice of methods a study adopts, there needs to be consideration for any ethical issues involved (Gratton & Jones, 2010). Additionally, following ethical principles are crucial for maintaining research integrity.

Considerations occurred during the planning stage of this study's research design and are outlined within this next section. Secondary data collection must be in the public domain or must include consent from the owner of the data before any analysis is undertaken. Likewise, informed consent of a participant when undertaking interviews is a key element of research ethics. The participant must have access to all information that could affect their decision to participate including information around the study, possible risks, confidentiality remits and how, if they chose to, they could leave the study. In addition to this, the research was approved by Sheffield Hallam University and its appropriate ethics committee before any quantitative or qualitative data was collected.

Finally, it seems appropriate to conclude this section with consideration of axiology. As referred to at the beginning of this chapter (section 5.2), axiology considers how 'we' act in the world and is the philosophical study of value, often seen as the collective term for ethics and aesthetics (O'Gorman & MacIntosh, 2014). It considers the philosophical approach to making decisions of value or the right decisions. The process of axiology involves the researcher to define, evaluate and understand concepts of right and wrong behaviour in relation to the research (Kivunha and Kuyini, 2017). As part of the researcher's journey, and with consideration to ethical impacts, it is important to consider personal values. More importantly, how research is conducted and what is valued in any research findings.

5.8 Conclusion

This chapter has discussed the methodology adopted for this study as well as analysing the philosophical and theoretical issues when conducting research. It is paramount for the progression of this thesis an appropriate methodology has been recognised and applied to ensure reliability and validity of the research moving forward. A rigorous methodology provides a path to ensure the project is both manageable and effective. Finally, consistent methods are crucial for acquiring knowledge in order to contribute to the gaps in the field.

Quantitative research studies analysing competitive balance are not uncommon however, identified in both the systematic review and the earlier stages of the methodology, it is important to choose the right measures for the right sport; hence the justifications for HICB values, win percentages and descriptive statistics. The gap in this research area is that no study has applied competitive balance statistics to the real world and appropriately analysed a qualitative approach providing a deeper and more realistic representation of competitive balance in leagues. A mixed method approach to a historically statistical study, justified by a rationale of a post-positivist stance, ensures a significant contribution to the existing field of research surrounding competitive balance. Finally, no study has explored rugby union since its professionalisation utilising the measures identified throughout this section, which therefore fills a gap in existing literature.

Chapter Six

Results and Discussion

6.1 Introduction

The following chapter presents the results and discussion of the overall thesis. Chapter six will analyse the past twenty-five years of league results, since rugby union's professionalisation, for the top three divisions within the elite men's rugby union structure (The Premiership, the Championship and the National League One); ultimately ensuring the aim of this thesis has been met.

Firstly, the quantitative data analysis approaches will be considered. Having exported league tables from the end of each season across twenty-five years, into excel, appropriate analysis can begin. Chapter six will contribute to objective three by beginning to measure competitive balance within England's men's rugby union using HICB values identified in section 6.2. Objective three will continue to be explored by looking specifically at win percentages and descriptive statistics to identify signs of dominance within individual elite leagues. Finally, the salary cap, and European and international competition are analysed in depth to consider how these unique factors affect the overall competitive balance of the rugby union leagues. Coupled with the presentation of results, a discussion will accompany each section to delve deeper into the meaning of the findings and how it applies to the sporting context. As this data is analysed, key points from each section will be identified to feed into interview questions for qualitative examination in chapter seven.

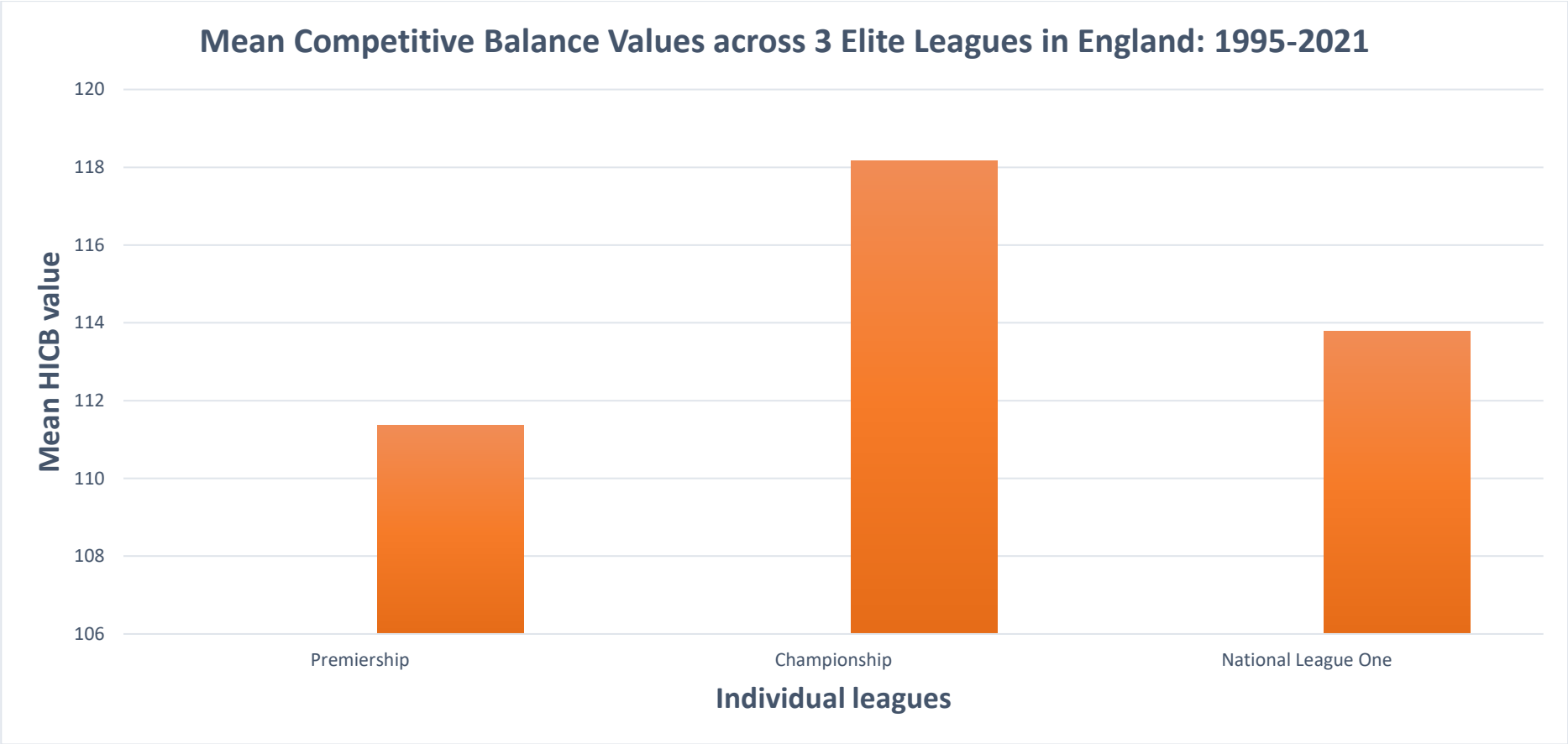
ACB provides the analysis of trends in competitive balance over time or as a result of changes in the business practices of professional sports leagues (Fort and Maxcy, 2003). Whilst there is twenty-five years of data to be considered within this study since professionalisation of rugby union in 1995, there have also been a number of changes in the business practices across all levels of the game including the introduction of bonus points, changes made to the number of teams in each league, the inclusion of playoffs and changes to salary cap values. It is important that these changes are encompassed within the findings of this thesis, firstly on an individual basis to see the effects they have made to the game but also as a collective to see how they combine to impact competitive balance.

6.2 The Herfindahl Index of Competitive Balance (HICB)

Identified in section 2.3.4.1, the Herfindahl index is a commonly accepted method of measurement of market concentration to ascertain whether competitiveness exists within an industry. It is a measure of the size of firms in relation to the industry which can be applied to rugby union to look at the size of a team within a league structure.

The HICB index reflects the degree of competitive balance between teams. In a perfectly balanced league, the Herfindahl index of competitive balance would take the value of 100. A rise in the index signifies an increase in inequality and therefore a decline in competitive balance; and vice-versa. When analysing multiple leagues, a value closest to 100 would represent a more competitive league.

Figure 4: Mean Competitive Balance Values across three elite leagues in England 1995-2021



Across the three leagues analysed (Premiership, Championship and National League One), average HICB scores have been calculated across the twenty-five years since the professionalisation of rugby union; shown in Figure 4. From this, the Championship is deemed to be the least competitive with a mean score of 118.18 being the furthest of the three scores from the idealised 100 value, followed by National One with a mean score of 113.79. The data has identified the Premiership as the most competitive on average across the twenty-five years analysed, with a mean value of 111.35. A one-way ANOVA (Analysis of Variance) has been performed to ensure this data is statistically relevant.

The ANOVA confirms some statistical differences between certain leagues. Tukey's HSD Test (shown below in table 9) for multiple comparisons identifies that the mean value of the Championship is significantly different to that of the Premiership and National League One ($p < 0.05$). The Championship is therefore less balanced, statistically, than the Premiership and National One. However, there was no statistically significant difference between the Premiership and National One in respect of HICB scores.

Table 9: Tukey HSD test to show Multiple Comparisons (HICB with Bonus Points)

League	League	Mean Difference	Std. Error	Significance
Premiership	Championship	-6.42328*	1.22745	.000
	National 1	-2.43481	1.24017	.129
Championship	Premiership	6.42328*	1.22745	.000
	National 1	3.98847*	1.24017	.005
National 1	Premiership	2.43481	1.24017	.129
	Championship	3.98847*	1.24017	.005

* p < 0.05

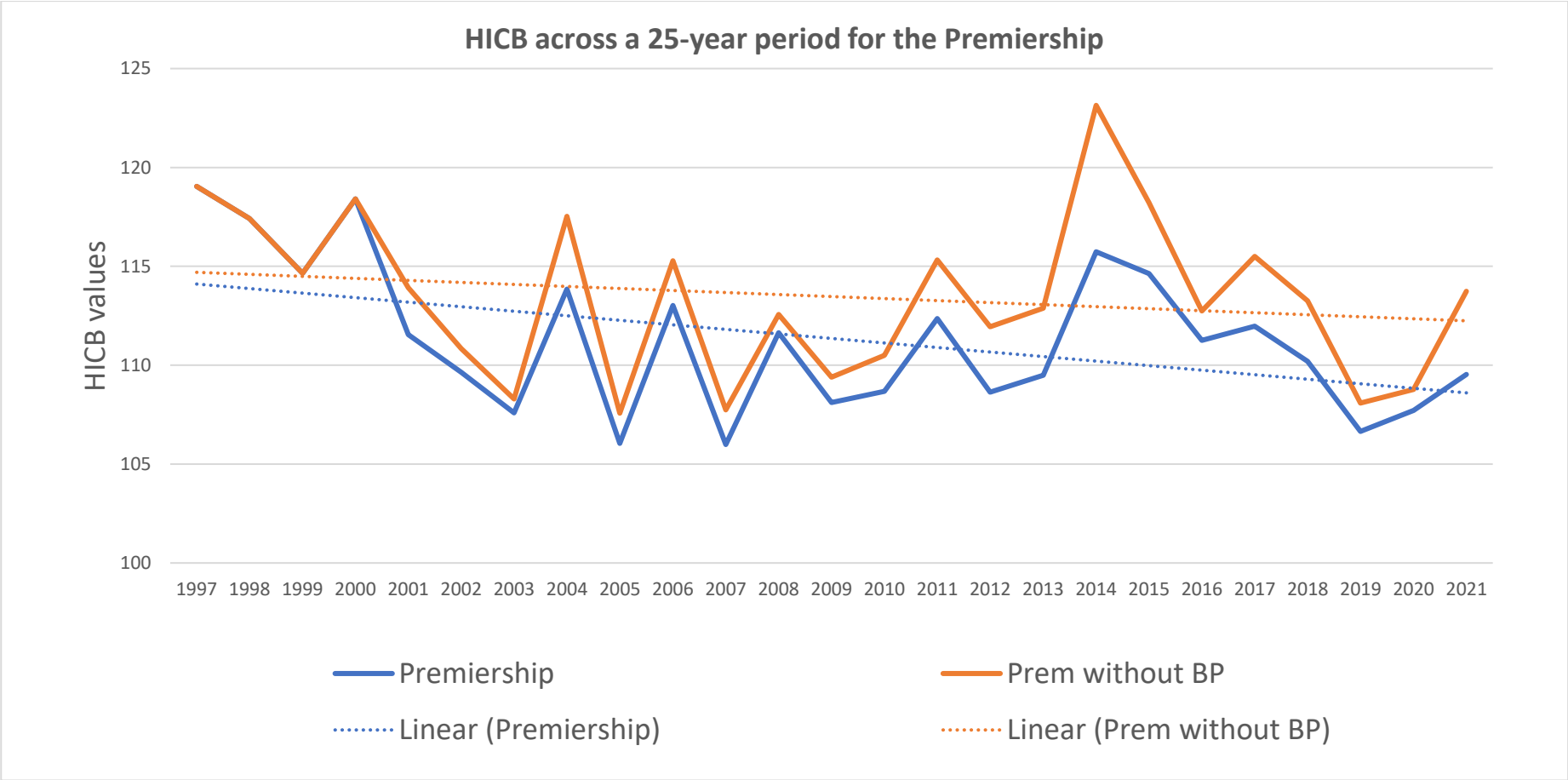
Bonus points are considered a key governance regulation of competitive balance as a mechanism to promote competition (see section 4.2.3) within the structure of rugby union. To analyse the impact of this regulation tool, it is important that bonus points are considered within analysis opportunities throughout chapter six. Tukey's HSD Test was therefore run for a second time, however this time with bonus points removed to look at the effect bonus points make on the league. All leagues over the past twenty-five years were calculated to produce a 'points scored' value of a league that did not include bonus points. For example, if a team were noted to have scored twelve bonus points within a given season, these twelve points were removed from their final points score on the overall league table. The outcome of this saw the Tukey's HSD results remain the same with only significant differences between the Premiership and Championship and the Championship to National League One. This ultimately suggests that the removal of bonus points from this particular data has had no difference in the results when investigating HICB values and therefore questions the impact of them on the game.

The remainder of this chapter presents a closer look into HICB values within each league across a twenty-five year period from the 1996-1997 season to the most recent data set from the 2020-2021 season. Across all three leagues, HICB values have been calculated twice. Once to include bonus points within the HICB score and once to exclude bonus points from the HICB score to identify if there is a trend when bonus points are removed from the data. Information from the Tukey's test above, as well as an initial descriptive

examination, appears to show that bonus points have had little effect on the league standings. This therefore justifies a closer look into the effect of bonus points specifically and will ultimately be a continuing theme throughout this thesis.

With this in mind, it is important to note that the HICB values for the first four seasons across all three leagues are the same with bonus points, than they are without bonus points. This is due to the 1996-1997 season through to 2000-2001 not including bonus points as they had not yet been introduced to the game. To add to this, bonus points were further delayed until the start of the 2004-2005 season for the National One.

Figure 5: HICB Across a 25-year Period for the Premiership



6.2.1 Premiership

Figure 5 shows the HICB values for the Premiership across a twenty-five year period. The figure above portrays a visualisation from 1997 where there are no bonus points included in the league structure until 2000, through to 2021 where the league results may be deemed to be skewed due to the unavoidable disruption brought about by the COVID-19 pandemic (see section 4.3). However, overall, the competitive balance of the Premiership since its professionalisation in the 1996-1997 season has seen improvement; both with, and without bonus points. Figure 5 shows both trend lines declining, identifying an increase in competitive balance as the HICB value gets closer to 100. It should also be noted that the trend line including bonus points (a normal Premiership league) is declining at a more rapid rate than that of the hypothesised league that has deducted bonus points from the scoring system. This ultimately highlights that bonus points have had a positive impact on increasing the competitiveness of the Premiership over the last twenty-five years contradicting the findings above in section 6.2 and evidencing the need for them in the Premiership specifically.

To support this further a correlation test has been conducted to evaluate the association between the HICB scores and the season years. The correlation coefficient is a measure that determines the degree to which the movement of two variables is associated. The possible range of values for the correlation coefficient is -1.0 to 1.0. A correlation of -1.0 indicates a perfect negative correlation, and a correlation of 1.0 indicates a perfect positive correlation. If the correlation coefficient is greater than zero, it is a positive relationship. Conversely, if the value is less than zero, it is a negative relationship. A value of zero indicates that there is no relationship between the two variables.

For the normal season including bonus points, a correlation value of -0.45 identifies a moderate negative relationship between professional seasons and HICB scores. This explains that as the years increase from 1997 to 2021, the HICB values decline, getting closer to the idealised value of 100. Whilst this correlation is only moderate, it is stronger than the correlation value identified for the Premiership seasons where bonus point have been excluded. At -0.18, this identifies a negative correlation, however only very weak; again supporting the benefit of bonus points in this league.

Try Bonus Points were not introduced into the Premiership until the 2000—2001 season (Premiership Rugby, 2019). This change in governance decreased the HICB values from 118.41 the previous season to 111.55 for the first season after bonus points were implemented into the league. Whilst calculations show that the HICB values have been lower, even without the inclusion of bonus points across other seasons, there is no doubt that bonus points contributed to a more competitive league that season; made clear by the large decline in HICB value. The only time within this data set that the HICB scores rose to the point of being higher than they were before bonus points were implemented was during the 2013-2014 and 2014-2015 seasons (115.74 and 114.63 respectively). Interestingly, in the 2014-2015 season, Saracens won the Premiership title by finishing only fourth in the regular league season yet winning the playoff competition to determine the league champion. This is only one of two occasions that a fourth placed team has won the Premiership and contrasts the HICB score suggesting that this particular season was less competitive than others. However, at the other side of the league table, bottom placed team London Welsh picked up only one point, as a try bonus point scoring four or more tries. London Welsh did not win any games in the 2014-2015 season which may be a justification of the higher HICB value as London Welsh struggled to compete. For the 2013-2014 season, the HICB value is due to the dominance shown by Saracens that year who finished top of the regular season having won nineteen out of twenty two games. This element of dominance is discussed further in the following section (6.4). In all other seasons the HICB score for the regular season has been close to or below the 111.55 value suggesting that the league is more competitive with the inclusion of bonus points.

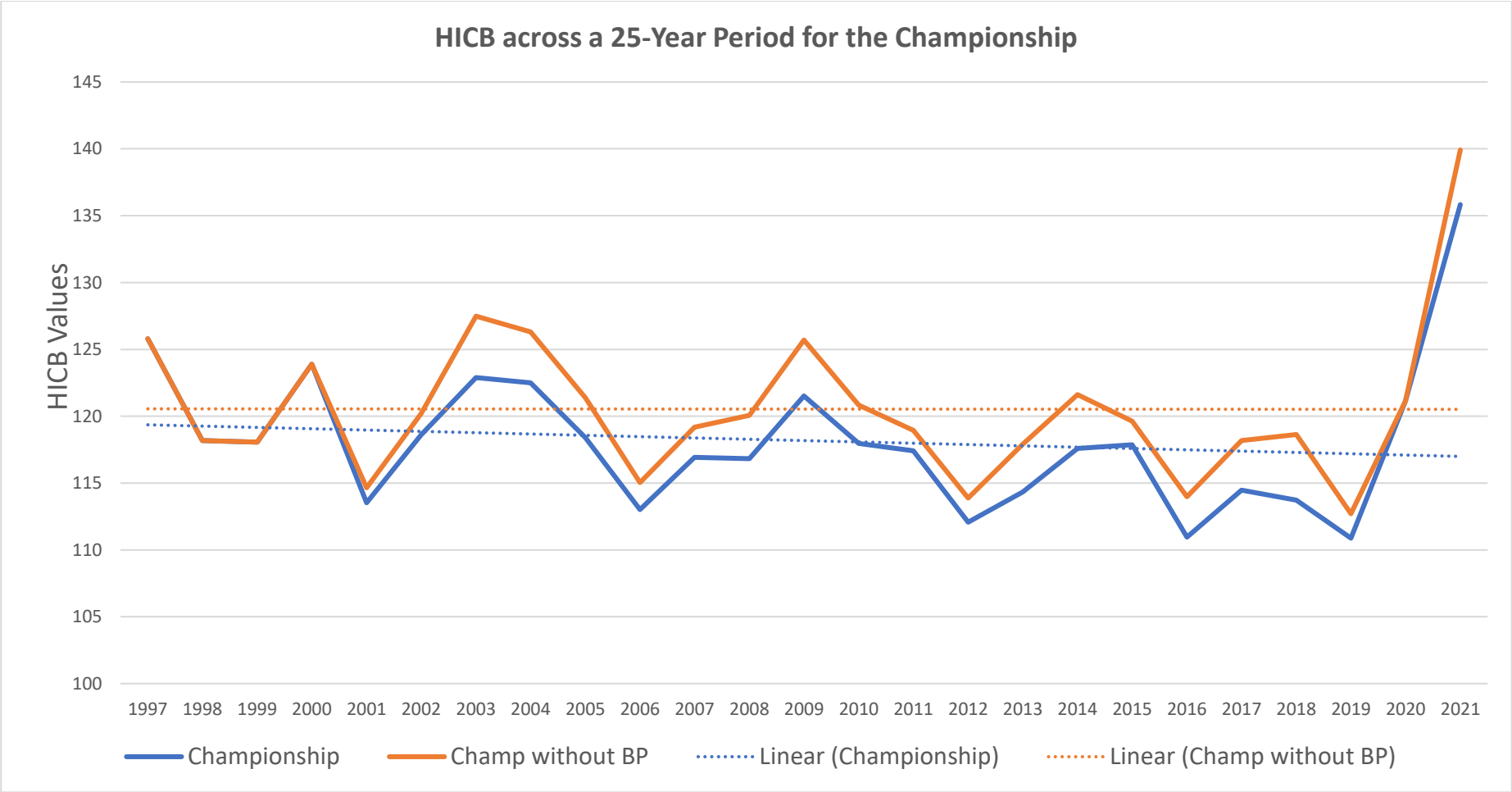
6.2.2 Championship

The Championship HICB values portray similar findings to that of the Premiership where the leagues HICB scores decrease over time to a value closer to 100. However, whilst the trend line shows a decrease in figures, the HICB values are consistently higher each year than that of the Premiership, shown in Figure 6 below.

The highest HICB value for both with and without the inclusion of bonus points arises in the 2020-2021 season. The overall league HICB score concludes at 135.83 and with the removal of bonus points from the data set, this score is higher at 139.92. This is due to London Scottish not participating within the league for this season and therefore scoring

zero in all columns including games played, overall points and bonus points; skewing the results. London Scottish were the only club from twelve Championship teams in the 2020-2021 season not to have invested in Covid testing to avoid financial consequences for themselves. The club chose not to accept a ten-year government loan through the Sports Winter Survival Package due to the fact the RFU had already implemented a shortened season. Nevertheless, it was confirmed that London Scottish would still be allowed to compete in the second-tier level for the 2021-2022 season.

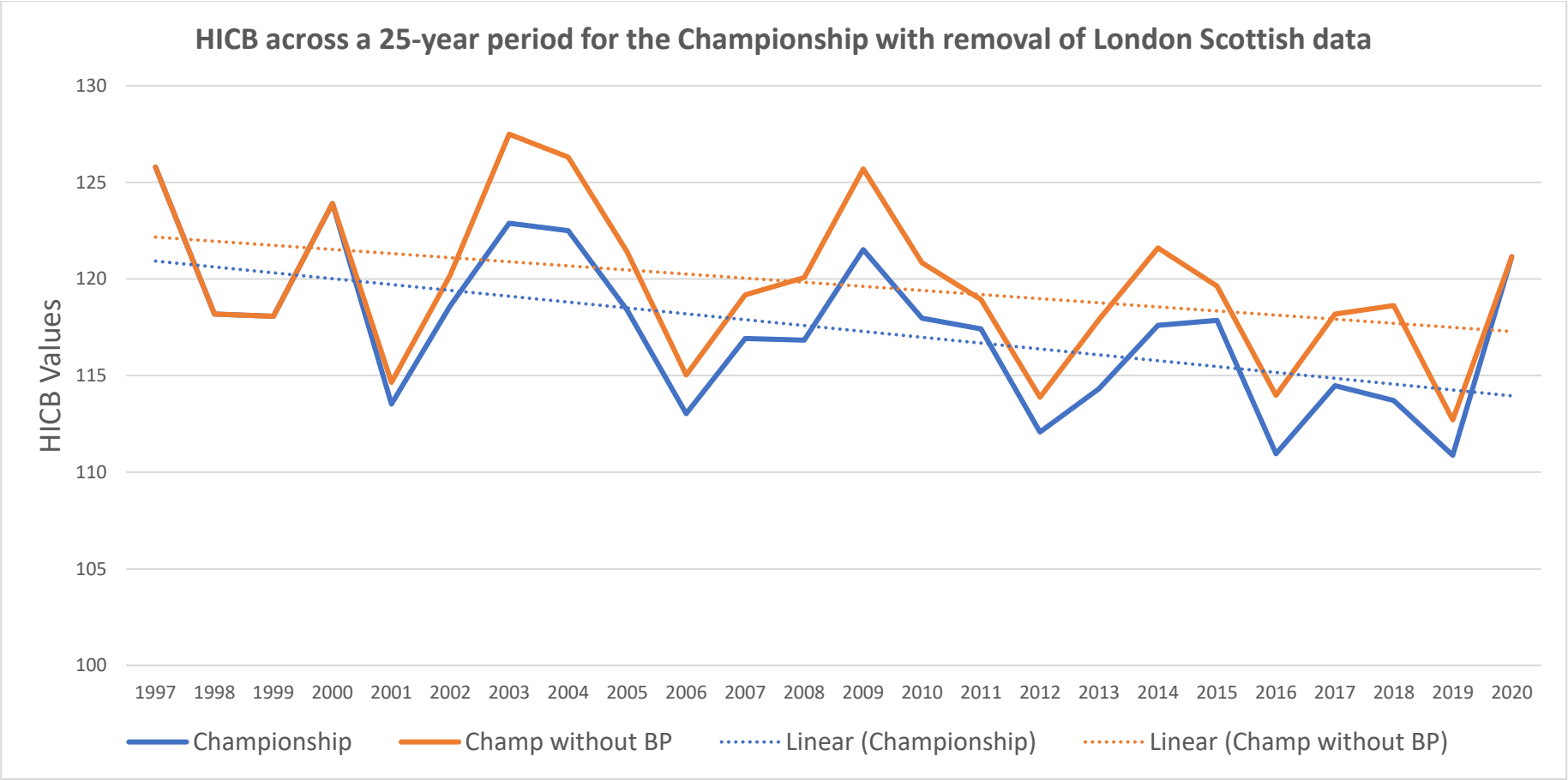
Figure 6: HICB Across a 25-year Period for the Championship



By removing London Scottish from the data, a more accurate representation of the HICB values can be given for the 2021-2022 season; seen in figure 7. Whilst the HICB values remain higher than previous seasons, potentially due to the reduced number of games and opportunity for competition, they do present insightful information. The HICB score noted as 135.83, representing a usual league standing, decreases by 8.33% to 124.51. Calculating the values that have excluded bonus points, these change by the same percentage from 139.92 to 128.26. This change is reflected in figure 7 where the average linear line of increase in competitive balance becomes more apparent without London Scottish skewing the results.

Figure 7 identifies that without the 2020-2021 season reflecting a higher HICB value due to the circumstances already discussed, the competitive balance for the Championship is improving over the twenty five year period at a steeper rate than figure 6. However, when comparing this back to the Premiership, the end point of the linear lines (regardless of whether the data includes bonus points or not) represent a higher HICB value within the Championship. This therefore suggests that there is less competition within this league across all twenty-five years since professionalisation than that of the Premiership.

Figure 7: HICB Across a 25-year Period for the Championship with removal of London Scottish data

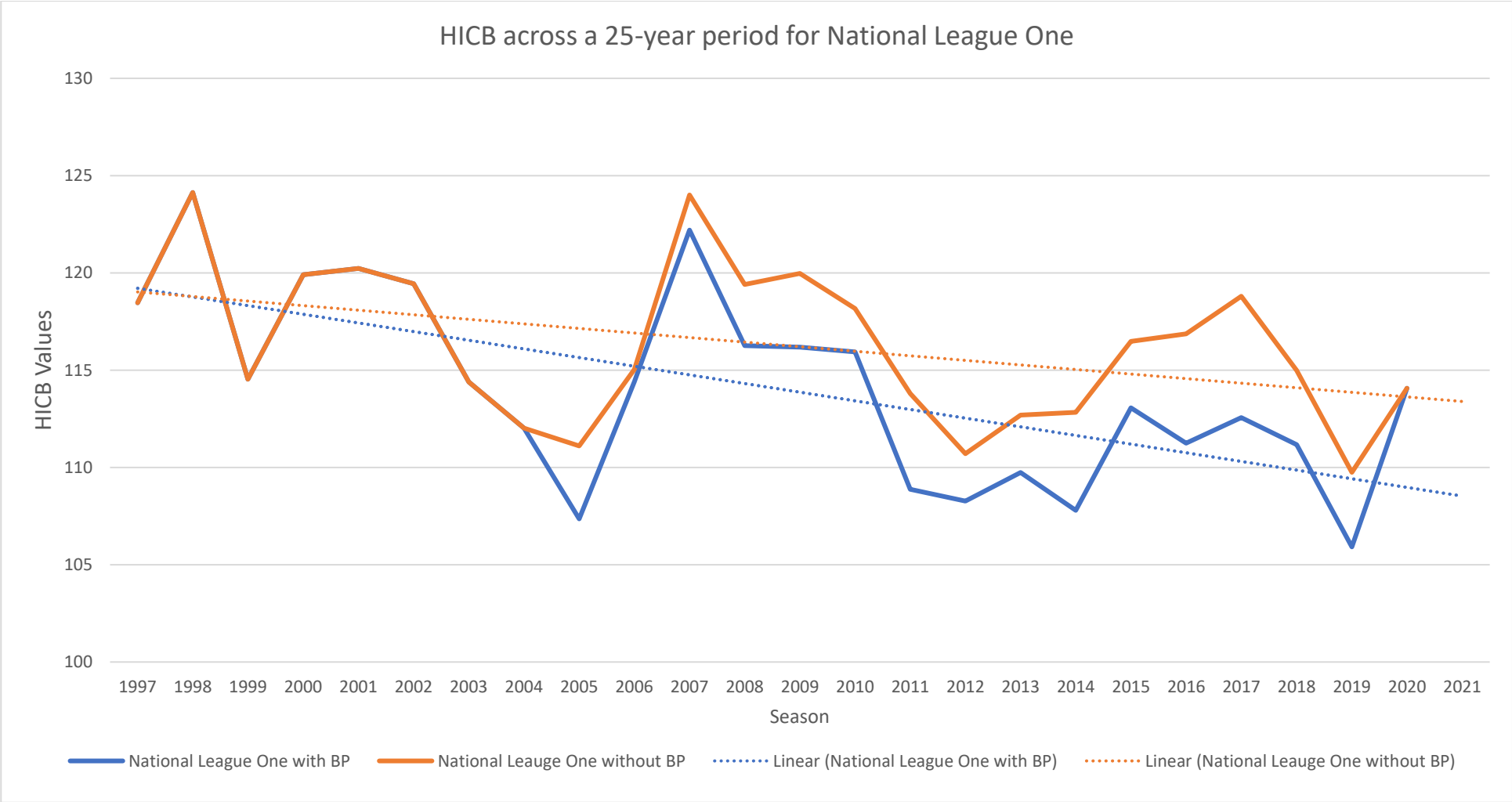


Both correlation values for within the Championship (with and without bonus points) identify a weak negative association. However, the results analysed where bonus points have been removed from the data is so weak, it is extremely close to a correlation score of zero. A value of -0.002 identifies that there is almost zero correlation between the seasons of the Championship and the element of competition captured within the HICB score. Due to the points raised above, the correlation scores were conducted again, this time with the 2020-2021 season removed from the data. With this change, the correlation values reflected similar scores to those found in the Premiership. A moderate negative correlation of -0.54 was found to represent the blue trendline on figure 7 reflecting a regular season and a weaker negative correlation of -0.37 reflects the values of the season where bonus points have been removed; again, suggesting as the years have progressed, the HICB scores have decreased to values closer to 100 and the Championship has become more competitive over time.

6.2.3 National League One

Trends in HICB scores for the National League One follow a similar pattern to that of the Premiership and Championship with the overall linear trendline decreasing over the twenty-five year period and suggesting that competitive balance in this league is increasing since its inception; seen in figure 8. In comparison to both the Premiership and the Championship, the linear lines get closer to the perfectly balanced value of 100. However, the National League One shows a more dramatic change of the decreasing trendline suggesting that National League One has become more competitive than the other leagues over time. In addition, the lowest point of the trendlines mirror that of the Premiership suggesting these two leagues are more balanced than the Championship and also reaffirming Tukey HSD test on page 107.

Figure 8: HICB Across a 25-year Period for National League One



The correlation values for this set of data identify stronger scores than that of the two other leagues, but again identifying a negative relationship. The regular season for National League One reflects the highest correlation found from any of the three leagues analysed with a stronger, moderate negative correlation of -0.64. The calculations for the National League One, displayed by the orange trendline on figure 8, identifies a moderate negative relationship would still have occurred if bonus points were not utilised in this league.

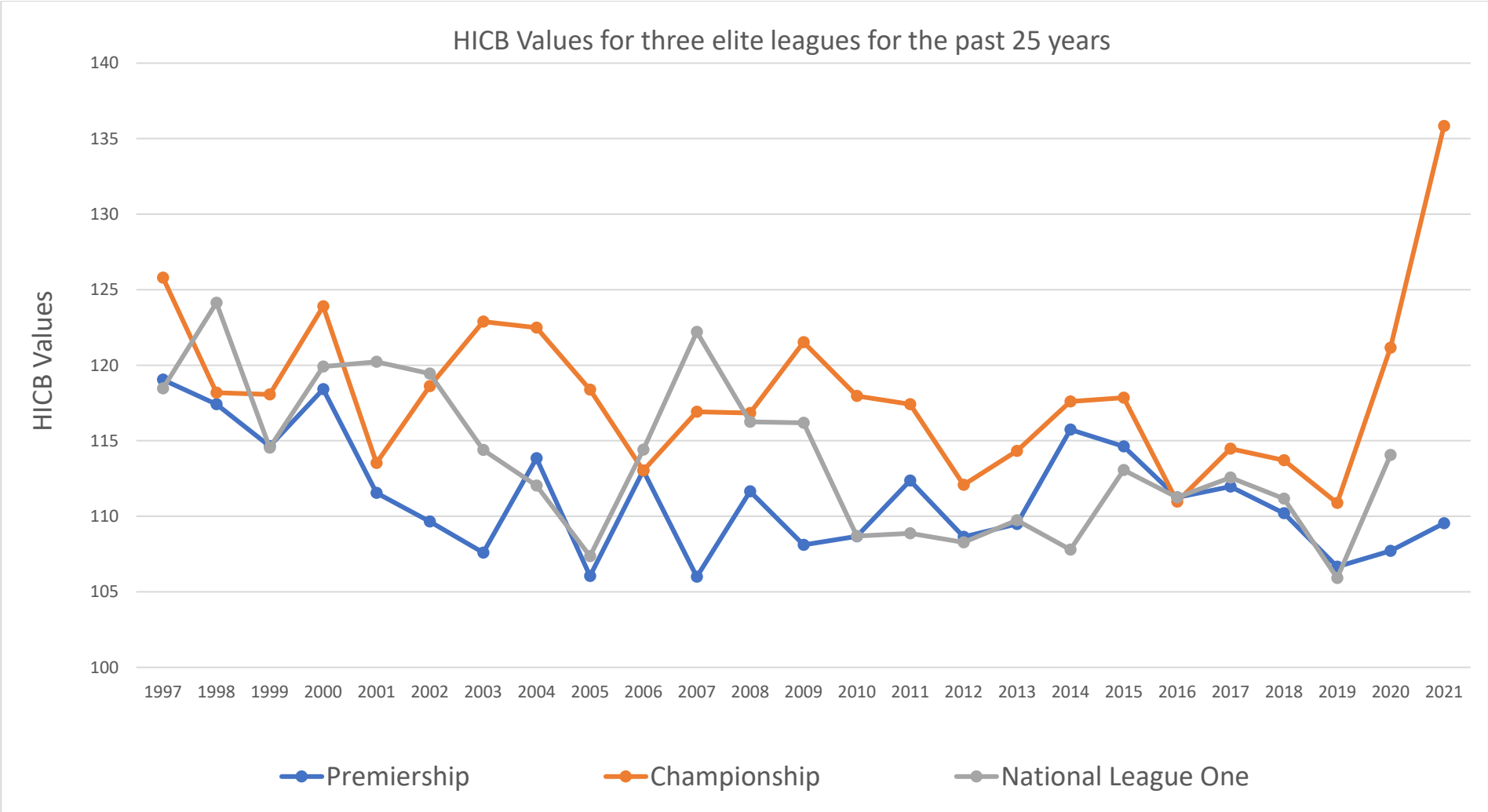
6.2.4 HICB Between Leagues

Figure 9 plots twenty-five regular seasons for all of the three leagues analysed. The graph supports the discussions made above that when utilising HICB scores, the Championship league is less balanced, identified by the orange line, reflecting consistently higher values to that of the other leagues. Figure 9 also reaffirms that the Premiership is the most balanced league, when using HICB analysis, reflected by the blue line and with consistently lower values, closer to 100.

There is one point within this graph worth a closer look. For the 2015-2016 season, the three HICB values are at their closest and cross over with only a small value of 0.3 between all values. Whilst a 110-111 HICB score does not represent a significantly high or low value, it is interesting that for all three of the leagues within this season, the competitive balance values are represented extremely closely. This is the only year that HICB scores have been so close across the leagues. Whilst it is impossible to state why this is the case, it is worthwhile to note that it was during this season, England were the hosts of the Rugby World Cup (2015) between the 18th September and 31st October. Did this worldwide event and phenomenon leave a legacy within English rugby union that year that meant competition was at its most unique point shown in figure 9? As more consumers of the game engross themselves in the spectacle of the rugby union world cup for a home nation, is it possible that on pitch performance changed across leagues? Whilst this is a psychological consideration that will not be explored in this thesis, section 2.4.5.4 identified that rugby union removes players from domestic fixtures to compete in international fixtures, a topic area covered more in section 6.6, later in this thesis. Looking specifically at the Premiership, HICB values in this season are comparatively higher than other seasons. Whilst no cause and effect can be proven, this could be because at the same time as the World Cup was being played, teams with international

players would have lost their highest performing players potentially forcing a more evenly distributed playing talent, more commonly linked to North American sport models (Rottenberg, 1956).

Figure 9: HICB Values for Three Elite Leagues for the past twenty five years



6.2.5 Summary of HICB

In all three leagues presented, linear trendlines are generated on graphs (figures 5,6 & 8) to portray an overall visualisation of competitive balance over the twenty-five year period. An interesting point of consideration when looking at these trendlines across all three leagues is the difference between the trendline including bonus points (the normal league trendline) and the trendline that has excluded bonus points. The data presented above identifies that leagues are more competitive with the inclusion of bonus points as a policy regulation. However, as this competitive balance measure was originally designed for football (a sport that does not include bonus points) it would not be justified at this point to take the HICB scores sole confirmation of this result. Whilst HICB was identified as an important measure to conduct due to its alignment with the ACB strand of competitive balance (table 5, section 2.3.4.2), it is now crucial the remainder of this thesis utilises other measures capable of considering the unique dimension of rugby union to present a comprehensive overview of the competitive balance in English rugby union.

The most noticeable point to take from this discussion is the overall increase in competitive balance across all leagues. All three leagues represented, show a negative trend line as well as a negative correlation. This therefore suggests that since 1995 when rugby union entered a period of professionalisation, competition in the leagues has increased overtime identifying the game is now fairer than it ever has been. This is shown by the HICB values getting closer to the idealised 100 number which would reflect a perfectly balanced league.

It is however important to discuss the idealised 100 value placed on the HICB scores. Whilst it is noted in this analysis that the rugby union values are getting closer to this idealised score, it should also be noted that the closest value to 100 is seen in the 2018-2019 National League One season with a value of 105.92. Chapter two, section 3.4, questioned the ability to produce an optimal value within competitive balance literature and suggested that a 'best' or a 'most competitive' value would be more realistic to achieve and interpret. From all three leagues, across twenty-five seasons, this value in the 2018-2019 season is the 'best' and the most competitive any league analysed has seen. Therefore, this can be identified as the optimum level of competitive balance rugby union teams should be striving towards.

To support this, it is also important to consider what a perfectly balanced league would look like in the sport of rugby union. A league where no one team had an unfair advantage, in its most simplistic format, would suggest that all teams draw all of their games. With this outcome in mind, a deliberation is presented between fairness, equal opportunities, and competition. If in fact, all games were going to draw, then the sport consumer would know the outcome before watching the game. This in turn would potentially drive down interest and fan engagement in the sport and allows an opportunity to therefore consider the uncertainty of outcome. For this reason, a HICB value of 100 is an unrealistic ideology in rugby union and arguably sport as a whole. Instead, it is more realistic to strive for increased equal opportunities such as the example in the National One League in the 2018-2019 season. This season saw four of the sixteen teams win more than 66% of games played, a further eleven teams won more than 36% of games from the thirty played in total and even the team who finished at the bottom of the league table that season (Loughborough) created opportunities which saw them win 8 games (26%) picking up fifty seven league points. In this season, no team that played top of the table, Amptill, were guaranteed to lose. Likewise, no team playing bottom of the table Loughborough, were guaranteed to win. Hence, the 2018-2019 National League One season HICB value of 105.92 can be identified as the optimum HICB value for any league, due to the fact it is both achievable and realistic.

6.3 Bonus Points

Bonus points are a significant part of the current format of English rugby union and are a measure implemented by the leagues governing body (RFU) in an attempt to increase competition within the game. With that in mind, the bonus point system has seen very few changes since its implementation in the 2000-2001 season for the Premiership and Championship and in the 2004-2005 season for National League One. It is therefore important that this thesis looks at the effect bonus points have on the game. Bonus points were considered in the previous section (section 6.2) which identified that the inclusion of bonus points made the individual leagues more competitive over time. However, it was highlighted in the summary of section 6.2.5 that HICB is typically used in sports to measure competitive balance where there is no inclusion of bonus points.

For this reason, bonus points need to be a primary consideration and are required to be scrutinised further in this chapter.

As briefly explained in chapter four, teams playing within the English rugby union league structure have multiple opportunities to gain additional league points. Firstly, any team that scores more than four tries in a game can obtain a bonus point. This not only means that winning teams can earn up to five points, but also, unlike in other sports, a losing team could still gain a league point by scoring four tries and collecting the bonus point; which could be significant to the losing team at the end of a season. Moreover, a losing team will also earn a second league bonus point by finishing the game within seven points of the winning opposition. In support of their original conception, the bonus point system, and the additional two points on offer, often provides an incentive for teams to attack and support losing teams who often 'deserve something'. The inclusion of bonus points however, presents an interesting discussion point within the English rugby union league structure.

The first significant point to note is the relationship between bonus points and final league position. From the seventy five leagues observed within this study, league position was analysed with and without bonus points. Nineteen leagues have been excluded from this data due to the respective leagues not implementing bonus points therefore seasons 1997-2000 will not be discussed. In addition, the 2019-2020 Championship and National League One data will also be excluded. This is due to the impact of COVID-19 (discussed in section 4.3) where the leagues were unable to finish and instead concluded using the best playing record formula. Finally, the 2020-2021 National League One season has also not been concluded as this season did not run, again due to the COVID-19 pandemic.

From the remaining fifty six league seasons, interesting descriptive outcomes can be reported; particularly within the Premiership. The Premiership holds the most complete set of data from seasons 2000-2001 through to the most recent season analysed 2020-2021. Across the available seasons, final league points have been checked when including bonus points and calculated to exclude bonus points. Using the most recent season as an example, league points in a season are calculated, in a regular league as:

4 points for a Win (W)

2 points for a draw (D)

0 points for a Loss (L)

1 point for a try bonus point (TB)

1 point for a losing bonus point (LB)

In the case of Bristol Bears who finished top of the Premiership league table for the 2020-2021 season (table 10), Bristol won seventeen games, drew one game, and lost four games. During this season, they have picked up additional points by gaining thirteen Try Bonus Points and two Losing Bonus Points meaning they finished the season with a total of eighty five points. The final column of table 10, identifies a new value calculated by what points a team would have finished on if the additional bonus points were not included. In Bristol's case, winning seventeen games and drawing one meant a value of seventy points was theoretically created ($= 17 \times 4 + 1 \times 2$). This was calculated for all teams within the leagues across all seasons.

Table 10: Final League Standings for the 2020-2021 Season

		Played	Win	Draw	Lose	Try Bonus Point	Losing Bonus point		Regular league Points	Points without Bonus Points
1	Bristol Bears	22	17	1	4	13	2		85	70
2	Exeter Chiefs	22	17	0	5	12	2		82	68
3	Sale Sharks	22	16	0	6	5	5		74	64
4	Harlequins	22	13	1	8	11	4		71*	54
5	Northampton Saints	22	11	0	11	6	5		57*	44
6	Leicester Tigers	22	11	0	11	5	3		54*	44
7	Bath	22	10	0	12	8	4		52*	40
8	Wasps	22	9	0	13	7	7		50	36
9	London Irish	22	6	2	14	9	5		48*	28
10	Newcastle Falcons	22	9	0	13	3	2		45*	36
11	Gloucester	22	7	0	15	6	7		45*	28
12	Worcester Warriors	22	4	0	18	3	8		27*	16

In the 2020-2021 league above, it can be identified that all teams, except for two, would remain in the exact league position if bonus points were not a tool used in the end of year standings. Bristol Bears would still finish in first (before playoffs), Exeter Chiefs would still finish second, Sale Sharks would still finish third and so on. In the same analogy, Worcester Warriors in the 2020-2021 season would have also still finished in last position on the table regardless of bonus points. Whilst there are teams who would have tied position, the only two teams who would have seen a change in their end of league standings are London Irish and Newcastle Falcons. These teams would swap

position in the league standings meaning London Irish would have finished below Newcastle in tenth position; albeit on the same points as Gloucester. Whilst this is relevant due to final league position and the potential secondary impact this has on revenue received, and sponsorships among other things, it is less significant in entering European competitions as both teams still enter the Rugby Europe International Championships by finishing in ninth or tenth position. Therefore, specifically within a league season, bonus points have had very little consequences making little difference in the final league table.

This is the case for five other seasons in the Premiership since 2000-2001. In the season ending 2019 differences came between sixth, seventh and eighth place where all three teams would have still secured their place in the Heineken Champions Cup. Ten years previous in the 2008-2009 season, Bath would have finished in third ahead of London Irish who would have finished in fourth, however both teams still qualified for the Heineken cup that year. A similar trend continues in seasons ending in 2008, 2004 and 2002 where all 'theoretical' movements in the league would not have led to a crucial change in outcome. In 2009-2010, Northampton Saints who were placed in second, would have finished above league leaders Leicester Tigers to place them in first. Whilst this sounds like a greater opportunity than others, both teams entered the playoffs to become Premiership Title Champions that season and Leicester Tigers were still awarded the accolade.

The remaining fourteen seasons in the Premiership, since 2000-2001, saw no difference in any of the league standings when removing bonus points from the total calculations. Therefore, from the twenty one leagues analysed, 66% of leagues would have remained exactly the same with every team finishing in the same specific league position if bonus points were not included.

If bonus points were introduced as a means of increasing opportunity and competition, and the removal of bonus points has little to no effect on finishing position in the Premiership, it is unclear how they contribute to increasing competition for a given season. Across the twenty one seasons in this data set, 93.3% of teams are unaffected and would finish in the same position regardless of bonus points. The remaining 6.7%

would not finish in a position that would change the outcome of which playoffs they enter or which European competition they are awarded to.

Within the Championship, twenty leagues have been analysed due to the Coronavirus impacting the 2019-2020 season and bonus points were not recorded. Of these twenty leagues, seven seasons had zero impact by excluding bonus points from the final total points. In these seven seasons all teams would have finished in the exact same positions as they did that year. In the other thirteen leagues analysed, like the Premiership, there are occasions where teams may have moved up or down by one position if bonus points did not play a part in the game. However, also like the Premiership, very few of these would have considerable implications to the individual clubs. In the 2002-2003 and 2003-2004 seasons, on both occasions the fifth placed team would have finished in fourth place should there be no bonus points in the league. However, this is not significant for these seasons as the league structure ran an 'automatic promotion' and therefore only the top finishing team gained promotion to the Premiership. Therefore, a team finishing in either fourth or fifth position, makes very little difference to the Championship teams and their end of season outcomes. Similarly, in the 2007-2008 season, sixteenth place finishers Launceston would have finished four points higher than Pertemps Bees to take them off the bottom of the table that season. However, once again, this would have made no major difference to the effect of the league as relegation procedures at the time saw the bottom two teams demoted to the league below. Hence, both teams were relegated to National League One.

In fact, only on one occasion from the remaining thirteen seasons would having no bonus points in the league have impacted a club within the league standing. This was in the 2012-2013 season when Yorkshire Carnegie finished fourth with sixty seven points and Bristol Bears finished in fifth with sixty five points. This season saw the Championship adopt a four league playoff to gain the Championship title and gain promotion to the Premiership. In a league that included no bonus points, Bristol would have finished four points higher than Yorkshire Carnegie making them eligible for the playoffs that season. Instead, Bristol Bears did not make the playoffs and therefore had no further opportunity to gain the Championship title.

This suggests that from all twenty leagues analysed for the Championship, only on one occasion bonus points made a noticeable difference to teams in the league, potentially impacting on the league outcome. However, even in this year, in the 2012-2013 season which could have seen Bristol Bears in the playoffs to gain a change for promotion, it was Newcastle Falcons who finished top of the league standings that season who went on to win the Championship title due to their dominance over other league rivals. To further this, the 2012-2013 season was Newcastle Falcons first year in the Championship after being relegated from the Premiership the previous season. They gained a Championship title, promoting them straight back up to the first tier of rugby union. This suggests that no matter who were in the playoffs that year, it would have been Newcastle Falcons who gained the favourable outcome.

Supporting the findings found from analysing the Premiership, the Championship data also suggests that bonus points have had a very small impact on league positions. 89.8% of the teams in the league throughout the past twenty five years (removing the exception of the 2019-2020 season) would have seen no change in their league position and would have remained in the exact same finishing position with or without bonus points within the league. In addition to this, only on one occasion did removing the bonus points make a difference big enough to impact the more significant places in the league standings. This means 99.4% of the seasons analysed remain relatively unaffected by the inclusion of bonus points in the league. This is potentially higher than that of the Premiership due to only one team being promoted into the higher division each year and therefore less disruption to team movement. The Championship has no other competitions (like the European competitions) that teams below first place need to compete for; more so for leagues where there is an automatic promotion and no playoffs. This again questions the rationale for bonus points in the league structure if they do not affect league standing at the end of each season. Identified in section 2.4.5.4, there are multiple factors utilised in sport aiming to increase competition, yet very few sports support the implementation of bonus point potentially due to its inability to meaningfully impact a given season.

National League One sees more changes than that seen in the Premiership and Championship, suggesting that bonus points play more of a part in in the third-tier division. However, similar to the discussion from the Championship, National League

One has no key positions that will make a detrimental impact to a change in league position in the middle of this league. To gain promotion from National League One into the Championship, a team must finish first as there are no playoffs implemented in this league structure. This was slightly different prior to the 2008-2009 season as before this point, the top two teams were promoted and therefore for these seasons the second placed team will also be considered as an important league position during analysis. At the opposite end of the table, it is important to also consider the relegation places. For the majority of the leagues analysed, three teams are relegated each season and therefore any movement in places around this is closely monitored. In some seasons this changes to only two teams being relegated and sometimes increases to four based on league restructuring attempts and therefore these are also considered and monitored for the appropriate year.

Seasons 2020-2021 and 2019-2020 have not been included when considering this data due to the impact of Coronavirus on these leagues (see section 4.3). In addition, National League One implemented bonus points into their league structure later than that of the Premiership and Championship and therefore no league is considered before the 2004-2005 season. This leaves fifteen leagues between 2004 and 2019 to be considered from the National League One data set. From these leagues, only in the 2005-2006 season did bonus points not have any effect on the overall league standings with all teams finishing in the exact same place. This count of one, compared to the seven leagues not affected in the Championship and fourteen leagues not affected in the Premiership, is considerably lower highlighting the higher movement bonus points create in the third-tier rugby union division.

In seasons ending in 2013 and 2015, both fourteenth place finishers would have finished higher in the league if bonus points were not a consideration in National League One. In 2012-2013, Macclesfield finished fourteenth in the table and could have finished eleventh if bonus points were not utilised. Similarly, in the 2014-2015 season, Old Albanians finished in fourteenth league position and could have finished in twelfth. By finishing in fourteenth position, both teams were relegated in their respective seasons. Whilst the removal of bonus points will have aided their chances at survival in the league, both teams fielded ineligible players in these seasons meaning they were

deducted five points for doing so; making a more detrimental impact than that of bonus points.

Only two other seasons from National League One saw a detrimental difference in final league positions. In the 2013-2014 season, first place finisher Doncaster Knights would have missed their opportunity for promotion as they scored less points than second place Rosslyn Park. It was only because Doncaster collected four more Try Bonus Points that year that gave them the league title and ultimately promotion. In addition, in the 2006-2007 season the top two teams were promoted and third place finishers Henley Hawks would have finished second in the league if there were no bonus points, meaning they would have been promoted that season rather than Launceston. The 2013-2014 season saw the most notable shift in league position due to bonus points. Doncaster Knights finished first with 122 league points, however, when removing bonus points from the league structure, second place finishers Rosslyn Park would have beaten Doncaster by two points to gain promotion. Whilst the National League One identifies increased movement than that of any other league, there are only a few of occasions where seasons without bonus points made an impact to the finishing positions that matter in regards to promotion and relegation.

Bonus points so far in this results and discussion chapter have provided a fascinating insight. A measure of HICB (section 6.2) has identified that competitive balance has increased over time and leagues are closer to 'perfect competition' with the inclusion of bonus points within the league than without. However, when looking at individual seasons, the data suggest bonus points have very little effect on the position a team will finish with the inclusion of bonus points. This therefore identifies:

- (1) Bonus points do not work within HICB and the data is incorrect
- (2) Or, that bonus points are not the reason for the long-term increase in competitive balance over the past twenty-five years.

The latter suggestion seems justified for the Premiership based on previous data in the field of English rugby union, that has identified the impact of salary caps. Identified in section 2.4.5.4, Hogan and Massey (2018) report a decline in competitive balance within rugby union in England but which subsequently improved in the Premiership league following the introduction of salary caps. However, as the salary cap is not utilised in the

Championship or National League One, this output is unclear. A wider point to note however, is that the bonus point system has not been changed since it was embedded in the leagues almost twenty years ago. For this reason, bonus points may not serve their originated purpose due to how drastically the league and the game has changed during this time.

What can be concluded at this point is that bonus points do not have a detrimental impact to where a team finishes in a given league and therefore, they lack contribution to increase competitive balance in a given season. It is crucial that bonus points are reconsidered by league organisers. Whilst it may not be a case of getting rid of the bonus point system, the system, fundamentally requires reconsidering. This descriptive analysis proves evidence the bonus point system is not working in its present format.

6.3.1 Evidence from the field

Section 5.6.2 identified the use of interviews with professionals within the game of rugby union to triangulate the results of the quantitative study. As previously identified, questions were posed based on themes that occurred during the data collection and analysis and therefore allows the contribution of qualitative findings around the concept of bonus points. This section will discuss findings from all three interviews around the topic of bonus points within the game of rugby union.

So far in this thesis, bonus points have been identified as a weak attempt to increase competition by sport organisers. It has been concluded from the quantitative data analysis that due to them having very minimal impact on league finishing position, the RFU needed to consider the importance of their contribution, if any or they should be removed from the league. Participant two stated that they found the results of this thesis so far “interesting” after they were told about the lack of contribution, as their initial thoughts were that bonus points “make the games more competitive”. Interestingly participant two, speaks about bonus points within a game setting and not, as considered in this thesis, at the end of the seasons (Lee and Fort, 2008). Participant three supports this in game analysis and specifically talks about bonus points as an extra incentive to do well against closest league rivals: “to gain a bonus point is almost like an added motivator towards *the* games [...] we take a bonus point from *them* and it’s about kind of asserting yourselves over these teams”. This finding suggests that whilst bonus

points do not make a difference to end of year standings, they are identified as an important psychological factor on match day. This is particularly appropriate in the Championship where participant three reiterates the need for bonus points using language such as “hunting the bonus point”, “making a statement”, makes the game “impressive”. This language evidences the internal motivation bonus points add to the game and emphasises how important they are, specifically to the players in a match day scenario.

Participant two supports this suggestion of bonus points being a motivational factor as they identify a losing scenario where a team had an opportunity to gain one additional point by achieving a losing bonus point: “the perception of all the clubs, everybody in the clubs, the fans, everybody is like ohh we didn’t get a losing bonus point”. This quote identifies that those within the rugby union industry would be disappointed by not collecting the extra point on offer through the inclusion of bonus points.

“For us last year, [name of kicking player from team] or [name of second kicking player from team] they would be looking and monitoring, and the messaging would be going onto the pitch that you’ve got to go for another try [...] don’t just kick if you get a penalty, don’t just kick for the points let’s go and get this other try because that point will matter at some point”

As well as a motivational output, participant two cites bonus points as a game management tactic. The quote above identifies that by chasing an extra bonus point, within a game, tactics may change dependant how close a team is to achieving the additional point; and therefore, suggesting the significance of bonus points within Premiership games specifically. Although, providing that no club is chasing them in the game, no team would have an advantage over another.

An alternative consideration for bonus points is the spectacle they add to the game. Participant one suggests bonus points are “good from the spectator point of view and that it can keep things a little more interesting later into a game”. Participant two supports the value of bonus points from an entertainment point of view suggesting that without a drive towards bonus points by teams in games, there are negative emotions and feedback by stakeholders. This is an important link back UOH (see section 2.3.2),

aligning bonus points to this element of competitive balance specifically and further highlighting future research opportunities in this field.

Finally, participant two furthers the conversations of bonus points by identifying their impact in a playoff scenario. Referring to their experience in the Premiership, playoffs are seen to determine the league winner with a four-team competition. Participant two discusses the ability to gain a single bonus point from one playoff game in order to rest specific players at a later point. By achieving the bonus point, and gaining an extra point at this stage, the point is then not needed in a future game allowing a team to rotate players (Rottenberg, 1956) that “have played perhaps a bit too many minutes and you want to give them a bit of a rest [...] to get fit, ready to go into these knockout games”. This creates an interesting link between two factors effecting competitive balance within the same sport league (bonus points and playoffs) that have not yet been specifically compared from one to another but will be further explored in section 6.4.3.

6.4 Dominance

This section analyses the dominance of teams over time to identify the impact on competitive balance. Table 5 within the systematic review identified the need to consider dominance when analysing ACB. In addition, section 2.4.5.4.1 emphasised the importance of using descriptive statistics to identify trends and patterns of groups of clubs: “long-term competitive balance depends on the extent to which a league is dominated by a small number of teams” (Hogan & Massey, 2018, p12). As highlighted in section 3.4.1 much consideration has been previously centred around the long-term competitiveness of a league, however most of this research is specifically applicable to American team sports. The relative standard deviation is often referred to as the most common measure of competitive balance (Hogan & Massey, 2018), however again, whilst this has been accepted as a suitable measure for a specific league, it should not be used to compare levels of balance between leagues with different variables, such as number of teams within the league, or number of matches played and will therefore not be used in its purest form within this study. To effectively measure dominance in English men’s elite rugby union, this section will first consider win percentages, before moving onto the descriptive statistics looking specifically into league titles and playoff analysis.

6.4.1 Winning Percentages

The winning percentage is a commonly used statistic within sport to determine the fraction of games a team or individual has won. By using a statistic such as the winning percentage, comparisons can be made between teams within the English rugby union league structures when the amount of 'wins' that have been accumulated by a team are divided by the total number of games played. In some cases, when calculating the winning percentage, drawn matches can be included within the statistic. However, for English rugby union, drawn games are rare in comparison to other sports due to the point scoring nature of the game. For example, across the twenty-five years of data, the number of games drawn in the Premiership is 3.2%. This figure is lower for the two leagues below the Premiership with the Championship having 2.3% of games drawn and the National League 2.6%. For comparison, the same formula has calculated that the footballs Premier League has an average of 23% of its games drawn per season. For this reason, data in the following paragraphs will focus on games won by individual teams with only minimal discussion regarding games that have been drawn by teams.

The winning percentage equation is identified below:

$$\frac{\text{Wins achieved by team } N}{\text{Maximum possible wins for team } N}$$

When considering winning percentages for the English rugby union league, only the overall table has been considered and therefore the playoff games have been removed from the data set. This enables the data to provide a fair representation of what has occurred during that season to determine final league position without the playoff data to identify which team was promoted and which relegated. The below table (11) identifies the winning percentage scores for teams that finished at the top of the league before the playoffs, and the values for those who finished bottom of the league before relegation playoffs (if included within the league). The top and bottom figures have been presented to provide the extreme examples from the data.

Table 11: Win Percentage Values for 'Top and Bottom Teams' for each league

	Premiership		Championship		National 1	
	Top of league	Bottom of league	Top of league	Bottom of league	Top of league	Bottom of league
20-21	77.3	18.2	90.0	0.0*	N/A	N/A
19-20	68.2	59.1*	N/A	N/A	N/A	N/A
18-19	77.3	27.3	90.9	27.3	76.7	26.7
17-18	77.3	13.6	95.5	9.1	90.0	10.0
16-17	77.3	13.6	95.0	20.0	100.0	13.3
15-16	77.3	18.2	90.9	18.2	76.7	20.0
14-15	72.7	0.0	95.5	13.6	90.0	10.0
13-14	86.4	9.1	82.6	21.7	83.3	10.0
12-13	77.3	22.7	95.5	13.6	83.3	13.3
11-12	77.3	27.3	77.3	18.2	86.7	23.3
10-11	72.7	18.2	95.5	18.2	90.0	33.3*
09-10	68.2	13.6	86.4	0.0*	96.6	0.0
08-09	68.2	9.1	93.3	6.7	84.6	15.4
07-08	68.2	9.1	100.0	26.7	88.5	7.7
06-07	68.2	27.3	80.0	10.0	88.5	3.8
05-06	72.7	22.7	96.2	23.1	88.5	19.2
04-05	68.2	27.3	84.6	7.7	88.5	23.1
03-04	81.8	0.0	100.0	3.8	76.9	7.7
02-03	77.3	31.8	92.3	0.0	84.6	11.5
01-02	81.8	27.3	92.3	15.4	88.5	15.4
00-01	81.8	9.1	92.3	23.1	84.6	0.0
99-00	81.8	4.5	92.3	3.8	84.6	7.7
98-99	84.6	11.5	84.6	15.4	84.6	15.4
97-98	86.4	9.1	90.9	9.1	92.3	15.4
96-97	81.8	13.6	86.4	9.1	83.3	13.3

6.4.1.1 Premiership

Within the Premiership, it is common for teams to finish top of the table (before playoffs have occurred) by winning seventeen individual games. League seasons finishing in 2021, 2019, 2018, 2017, 2016, 2013, 2012 were all topped by teams who played twenty two games and won seventeen of these to give them a win percentage of 77.3%, seen in table 11. Whilst a winning percentage of 77.3% may seem high, the league seasons between the Premiership's inception and the 2001-2002 season all finished with a win percentage of 81.8% or higher. Such high winning percentages suggests there is little

room for error within the Premiership, especially when the league was first conceived. The slightly lower values from this point forward suggest that the Premiership has had more competition as the 'top' teams are not winning as many games as was previously required. The lowest value across the twenty five years is 68.2% seen in years 2019-2020, 2006-2007 & 2004-2005. 68.2% represents a team who finished at the top of the table by winning fifteen games from twenty two and therefore only lost or drew seven of their other matches that season; still identifying a high level of dominance within the league winning over 50% of games played.

This can be compared to results found at the opposite end of the league table. In the 2003-2004 and the 2014-2015 season, Rotherham and London Welsh were both relegated respectively with a winning percentage score of 0%; confirming that either side did not win a single game throughout the whole season. In fact, not only did neither team win a game, but neither team drew a game meaning that all twenty two games played were lost. On both occasions both teams were promoted to the Premiership the season previous by winning the Championship. In 2002-2003, Rotherham won twenty four out of twenty six games (Win Percentage of 92.3%) gaining an automatic promotion by finishing top of the league standings. In 2013-2014, London Welsh won nineteen from their twenty two games finishing in second position in the league behind Bristol Bears. Whilst both teams won nineteen and lost four games, London Welsh beat Bristol Bears 48-28 on aggregate to gain promotion that season.

In this example, two teams who have over achieved in the Championship by showing huge signs of dominance, have failed to achieve any success in the higher league. This identifies the disparity between the Premiership and Championship and suggests the two leagues do not fairly feed from one to another. For a team to perform so well in the Championship but not win a game when promoted to the Premiership highlights a significant leap in performance standards between the leagues.

In the Premiership, if a team were to lose all but one of their games and win the other, a win percentage value would be 4.5%, as apart from one season (1998-1999), all seasons contain twelve teams meaning twenty two games are played each year. A value of 4.5% can be seen on one occasion in the Premiership in 1999-2000. The next lowest value is 9.1% seen in years ending 2014, 2009, 2008, 2001 & 1998 where teams at the

bottom of the table won two from their twenty two games played. More recently, in the past five years, the lowest win percentage value for teams at the bottom of the Premiership table is 13.6% identifying whilst at the bottom of the league table, the respective club won three games they played that year. This may identify the Premiership could be becoming more distributed as those at the bottom of the table are able to pick up game wins.

The average winning percentage value for a team that finds themselves bottom of the Premiership is 17.7%. However, in the 2019-2020 Saracens finished at the bottom of the league with a score of 59.1% whilst others above them held a value of 29.5%. This was due to the significant fines and governance regulation imposed on Saracens that season. Saracens provide a unique case study due to recent sanctions brought against them by the RFU and therefore are a club that will be considered in more detail throughout this thesis (notably section 6.5.1). It is important to note at this point, although Saracens were bottom of the table, this was not due to their on-pitch performance in the 2019-2020 season and therefore the winning percentage of 59.1% for a club at the bottom of the Premiership is not a true reflection of the statistic.

6.4.1.2 Championship

The Championship portrays a different picture to that of the Premiership. Whilst the average win percentage value to finish top of the Premiership was 76.5%, the Championship's value is 14.3 percentage points higher at an average of 90.8% identifying the extreme dominance a team must have to win this league, or alternatively, how weak other teams in the Championship are. This point is easily proven during the 2003-2004 season where Worcester played twenty six games and won all twenty six, gaining them automatic promotion into the Premiership. Whilst this is the only season that a 100% win percentage value has been recorded, it is certainly not uncommon that the teams who finish at the top of the table, before the playoffs (during the seasons they have been utilised in the Championship), win a large proportion of their matches. In 2005-2006, Harlequins won twenty-five from twenty six games and were subsequently promoted with a win percentage score of 96.2%. After maintaining such dominance within the league, Harlequins saw their on-pitch performance continue into the following season finishing seventh in the Premiership; the highest any promoted team has finished within the top flight league following a promotion since the Championships

formation. To further this, since securing their position in the Premiership in 2006, Harlequins have maintained their status as a Premiership club and have not, to date, been relegated again. From the inception of the professional era for rugby union, the 2005-2006 season is the only season Harlequins have not been in the top flight league.

During the 2005-2006 season there were fourteen Championship teams within the league. However, similar values in win percentage have been seen within the Championship across other years with only twelve teams in the league. Seasons ending 2018, 2015, 2013, 2011, were also topped by teams who only lost one game during that season seeing Bristol Bears, Newcastle Falcons and Worcester Warriors achieve a win percentage value of 95.5%. These three teams present a different case study to that of Harlequins.

Supporting the suggestion that these three teams are dominant within the Championship, across the twenty five years of data, they have been promoted ten times between them. However, to achieve this, they have also been relegated from the Premiership the same number of times. This therefore suggests that whilst a team may succeed in the second-tier division, it is not guaranteed that they will thrive in the top-tier. This is a discussion point that is not unique to these clubs nor to these leagues and will be a recurring discussion point throughout this thesis. Across the English rugby union league structure, teams who gain promotion will not always succeed in the league they are promoted to and will often be relegated again in the next few years. This creates a category of teams that 'Yo-Yo' between leagues as they cannot sustain their position in the higher league due to the inability to compete and win games. However, they dominate the lower tier division and are therefore promoted almost immediately. These Yo-Yo teams create an externality of rugby union league structures and questions the competition in the lower leagues (especially the Championship). It is only these teams who gain the chance and opportunity of promotion and therefore distort competitive balance.

At the opposite end of the table, the win percentage scores reflect a similar picture to that of the Premiership with low values throughout. As seen in table 11, there are two occasions where the Championship reflect values of zero; firstly in the 2009-2010 and lastly in the most recent season 2020-2021. The 2009-2010 portrays a similar analysis as

detailed within the Premiership. Birmingham & Solihull did not win a game from the twenty two played that season. They did however draw one of their games which is important to note as it is not reflected in the values of a win percentage score. Whilst most teams in Birmingham & Solihull's position would have been relegated, not winning a single game all season, for the 2009-2010 season, the Championship restructured forming a different means of relegation; saving them from a relegation to the league below in that particular year. For four seasons between 2009 and 2012, the Championship season playoffs saw the top eight teams compete for promotion, whilst the leagues bottom four teams were placed in a relegation playoff. Birmingham & Solihull who finished twelfth in their league played Coventry (winning percentage of 22.7%) who finished eleventh, Rotherham Titans (winning percentage of 31.8%) who finished in tenth position, and Birmingham Moseley (winning percentage of 45.5%) who came ninth in the league, in a playoff to determine which team would be relegated. Despite not winning a game, and having a win percentage of zero, Birmingham and Solihull won games against Moseley and Coventry to finish third in the relegation playoffs and instead, Coventry were relegated from the Championship in the 2009-2010 season. In the other three seasons where these relegation playoff rules were implemented, the team at the bottom of the league at the end of the season, was the team who were also relegated identifying no real impact of the relegation playoffs in the Championship.

The second zero win percentage value found in the Championship can be seen in the most recent season; 2020-2021. Due to the COVID-19 pandemic, this season featured a truncated timeframe of only sixteen weeks. In change from previous seasons, eleven teams each played the other teams only once, either home or away, to produce a ten-round season. As discussed previously in section 6.2.2, London Scottish chose not to play in this season due to financial reasons. This subsequently identifies that London Scottish did not win a game, because they did not play a game; hence the win percentage value of zero.

Other significant low scores to identify include values of 3.8% (2003-2004 & 1999-2000), 6.7% (2008-2009), and 7.7% (2004-2005). In fact, the average win percentage value for those at the bottom of the Championship table is 13.1%, 4.6% lower than the average lowest value for teams at the bottom of the Premiership table. It is clear that the

Championship has a lot to consider about the disparity within the league itself. Those competing at the top of the table are dominant, on rare occasions, too dominant for the rest of the league. However, those at the bottom of the table, in some cases, cannot win any games. This is a concern if this trend occurs more often over time due to the UOH theory. Section 2.3.2 highlights this theory and identifies that sport consumers enjoy not knowing the outcome of a game before the day. Therefore, if the Championship is to continue in the way it is currently run, fans of clubs at the bottom of the league, who potentially only win one or two games from twenty two (or more) games are going to lose enjoyment for the sport. This in turn may have further consequences if those fans chose not to support their team, or simply stop going to games as often, as gate revenue will decrease, secondary spending at games will fall, merchandise sales will reduce resulting in a declining spiral for the club.

6.4.1.3 National League One

When considering win percentages, the National League One values sit between that of the values seen for the Premiership and the Championship. Shown in table 12, the average win percentage for those teams to have finished at the top of National League One for the past twenty five years is 86.6%. This compares to values of 76.5% for the Premiership and 90.8% in the Championship suggesting that to finish at the top of the National League One table, a team requires more wins as a percentage from the games played than the Premiership, but less wins than is required in the Championship. Similarly, at the bottom end of all leagues analysed, the average win percentage score at the bottom of the National One table is 13.7%, higher than that of the Championship (13.1%) meaning a team is required to win more games in this league than the Championship to prevent finishing bottom of the table. However, a score of 13.7% is less than that required in the Premiership (17.7%) where an even greater number of wins from the games played are needed.

The values within National League One may also show a different picture to that of the higher leagues due to league structure. In both the Premiership and Championship, for the majority of seasons over the past twenty five years, there have been twelve teams in the Premiership and twelve teams in the Championship. This is different to National League One, as there are currently sixteen teams within this league and fourteen previous to the 2006-2007 season. Whilst the percentage figure will not be affected, it

should be considered that the National League One teams each play an extra eight games per season than the other leagues and therefore in regard to physical performance, have to endure an extended period to achieve dominance within the league. A 100% win record still suggests all games played were won, regardless of how many games were played in the league allowing comparisons to be made.

Table 12: Average Win Percentage Values for the Top and Bottom Teams across three elite leagues

	Premiership	Championship	National League One
Average win percentage value for teams at the top of league	76.5%	90.8%	86.6%
Average win percentage value for teams at the bottom of the league	17.7%	13.1%	13.7%

Similar to the Championship, one season from the twenty five analysed within National League One saw a win percentage score of 100%; a state of performance which Neale (1964) suggests is not ideal. In the 2016-2017 season, Hartpury University won all their thirty games to gain automatic promotion in to the second tier of rugby union. In the same year, Hartpury University broke the league record for the most league points in a season (148), most points scored (1,455) and tied for most bonus points gained within a season (28) with Ealing Trailfinders; all of which emphasising the dominance Hartpury had in the 2016-2017 season. Hartpury have continued their on-pitch performances to maintain their place in the Championship league since their promotion.

Table 11 identifies two zero win percentage values recorded in National League One; one in the 2000-2001 season and the other in the 2009-2010 season. These values are when bottom of the table teams have not won a game in the given season (unlike the outcome of the Championship zero percent values). In addition, in both seasons, neither team managed to earn a draw in their games either. More interestingly, on both occasions, both West Hartlepool (2000-2001) and Manchester (2009-2010) were relegated from the National One division following a previous relegation from the second tier in the season prior; meaning a double relegation on both occasions. Whilst there is limited data on these case studies as both are from over ten years ago, similar circumstances happen on a more frequent occurrence in lower semi-professional

leagues. South Leicester RFC, up until recently were a consistent National League Two North club however, were relegated at the end of the 2018-2019 season following a run of bad results. They were relegated to the Midlands Premier division however further withdrew from this level citing a total of thirty players had left the club and a key sponsor had withdrawn (Dimmer, 2019). Mr Marsden, the club Chairman suggested there “is 'a disease' in English rugby, with clubs unable to pay players what they want if sponsors pull out, or if they end up relegated” (Dimmer, 2019). This may or may not be the case for West Hartlepool or Manchester, however it is likely that they have lost high performing players for some reason leaving them unable to compete in their leagues (Rottenberg, 1956); consequently, being relegated in two consecutive seasons.

6.4.2 Distribution of League Titles

An alternative way to consider league dominance is to consider league titles as used by Williams (2012) who measured this in the Premiership. A league suggested to have good levels of competition can be expected to see a larger variety of teams win their respective league title; whether that be the title of Premiership Champions or the title of being promoted from the Championship and National League One. This will identify if every team within a league has an equal opportunity or if there is just one or a small group of teams who have an unfair advantage. A more descriptive analysis method for this allows for a case study approach to teams who may be winning more titles than others, or alternatively, not winning any titles.

6.4.2.1 Premiership

Across the twenty five years analysed, there have been eight winners of the Premiership: Harlequins, Exeter, Saracens, Northampton Saints, Leicester Tigers, London Wasps, Sale Sharks and Newcastle Falcons. Compared to the Championship who have seen thirteen winners, and the National League One who have seen nineteen different winners, this number of eight in the Premiership identifies less variety of teams winning the top-tier league. From these eight teams, two have only won on one occasion. In 2006 Sale Sharks won their only Premiership league title beating Leicester Tigers by six league points to finish at the top of the table. Although previously identified as a Yo-Yo team in section 6.4.1.2, Newcastle Falcons have won a Premiership title, albeit this was in the 1997-1998

season after previously being promoted from the Courage league National Division Two (now known as the Championship).

Williams (2012) utilises a sequence of 1's to demonstrate distribution of Premiership Championships titles. "A sequence of '1' s' denotes a different league winner each year; and any entry other than '1', say '3', would indicate that a team won the league three years in a row" (Williams, 2012, p94). To continue and to develop Williams (2012) findings between the 2000-2001 and 2009-2010 seasons, this measure is presented below for the twenty five seasons of the Premiership below:

1 - 1 - 4 - 3 - 1 - 1 - 1 - 2 - 1 - 1 - 1 - 1 - 2 - 1 - 2 - 1 - 1

The numbers higher than one note a period of dominance by a specific team; this has happened on five occasions within the Premiership. Not long after the sport turned professional, Leicester Tigers saw four consecutive league wins from the 1998-1999 season through to the 2001-2002 season before London Wasps entered a similar period of dominance spanning three years. These same lengths of dominance have not been seen since, identifying that the league has been more fairly distributed in terms of league titles. However, both of these teams remain key clubs within the Premiership with Leicester Tigers collecting four further titles in 2007, 2009, 2010 and 2013 and London Wasps achieving two more, one before this period in 1997 and one after in 2008. This further identifies that between London Wasps first title in 1997 and Leicester Tigers last in 2013, only three other teams won titles in this fifteen year period; Newcastle Falcons in 1998 (as previously identified), Saracens in 2011 and Harlequins in 2012. This therefore suggests that the first fifteen years after the professionalisation of rugby union, saw the Premiership dominated by a small number of teams, further highlighting the lack of competition in this league during this period.

Here it is important to study London Wasps in further detail. London Wasps, the first ever winners of the then 'Courage League National One', are arguably one of the most consistent members of the highest rugby union division having never been relegated to the second tier and have achieved five league title wins to date. Now known as 'Wasps' following their announcement that the London prefix of the name had been dropped in 2014 (Gilbert, 2015), they moved to Coventry to relocate in a less saturated location. This links back to the North American theory of a franchised based approach to sporting

leagues identified in section 2.4.1. By relocating out of London where there were multiple rugby teams, Wasps have retained loyal fans but also exploited an area whose closest rival is Leicester Tigers, some twenty six miles and a forty five minute drive apart.

The latter half of the above sequence (page 145) would appear to suggest a more balanced league with teams winning one or two titles before another team excels. However, since 2014, only four teams have seen success in regard to a Premiership title. With the removal of Northampton winning the 2013-2014 league, only three teams have won the past seven title opportunities. Of which, Saracens have claimed four of these, Exeter have won two and Harlequins have secured one win, in the most recently analysed season.

Whilst eight different title winners may appear to suggest a competitive arena on the surface, four of these teams have dominated the first years analysed and four teams the latter. This descriptive analysis suggests that distribution of league titles in the Premiership, does not denote a competitive environment. Instead, it identifies that for seasons 1997-2013, London Wasps and Leicester Tigers had an unfair advantage, and more recently Saracens and Exeter currently have an advantage over their rival teams.

These findings contrast the HICB measures from section 6.2.1 suggesting that the Premiership is the most competitive league from the three analysed. Whilst it may be the case that the Premiership is more competitive than the Championship and National League One, it is clear that there is league dominated by a few teams in the Premiership. Therefore, the league must become more competitive to ensure other competing teams have a fair opportunity at winning a Premiership trophy.

6.4.2.2 Championship

For the purpose of analysing the Championship, it is important to identify which teams this study is concluding as 'league title champions'. In this case, due to the impact of playoffs implemented during some seasons analysed (discussed in more detail in section 6.4.3), it is not necessarily the team who finishes top of the league table, but instead the team who 'wins' the playoff competition and is therefore crowned champions and rewarded by being promoted (providing they were eligible). Whilst in some seasons, this is the same club, in 1996-1997 & 1997-1998 the structure also saw two teams promoted

and therefore the team who finished first in the playoffs here have been included in this data evidencing dominance.

In comparison to the Premiership the Championship title winners are more varied with thirteen different winners over the past twenty five years. From these, Bristol Bears have earned themselves the most titles and have won the Championship on four occasions. Whilst two of these four have come in the past five years (2015-2016 & 2017-2018) Bristol began their rugby era in the Premier division when the league turned professional in 1995. They were relegated in 1997-1998, before being promoted back into the Premier division the year after. Their final championship title was in 2004-2005 where again, they were relegated from the higher division only two years previous. Closely behind Bristol, Worcester Warriors, Leeds and Rotherham have all won three Championship titles, albeit Rotherham won the last of theirs almost twenty years ago in seasons ending 2000, 2002 & 2003. This identifies that whilst the Championship appears more varied when comparing it to only eight teams in the Premiership, more than 50% of titles are from four teams only; a situation Neale (1964) suggests is not ideal.

Newcastle Falcons, London Irish and London Welsh have all won two Championship titles. These three case studies provide an interesting topic area for further discussion. Newcastle Falcons won their Championship titles in the 2012-2013 and the 2019-2020 season. Both seasons previous to these separate titles, Newcastle Falcons were the team relegated from the Premiership. Similarly, London Irish won their Championship title in the 2016-2017 season, and also in the 2018-2019 season. Again, like Newcastle, London Irish were relegated from the Premiership the two seasons prior. Whilst London Welsh are slightly different as they started their professional rugby journey in the third division of the league structure, they maintained their status in the middle of the second-tier league for thirteen seasons before gaining promotion to the Premiership. It was here however, that they were relegated the following season, before being promoted and relegated again in consecutive seasons.

These case studies continue the categorisation of Yo-Yo teams (page 139). Currently, the teams dominating league titles within the Championship are consistent members of the Premiership who are relegated and go back within a couple of seasons. Alternatively, they are teams who are dominating the Championship but are unable to compete at the

higher level and therefore come down again the following season. This Yo-Yo effect seems to be particularly apparent between the Premiership and Championship identifying the need for governance intervention to increase competition at the bottom of the Premiership and at the top of the Championship league structures. In 2020, it was reported by the British Broadcasting Corporation (BBC, 2020) that the RFU was considering plans to ring-fence the English Premiership as an initiative that attracts more investment and support to the game. Whilst this initiative was to support disruption caused by the COVID-19 pandemic, it is unclear what transition between the Premiership and Championship will look like in the future.

Those teams with only one Championship title to their name include Richmond, Bedford, Harlequins, Northampton, Exeter and Saracens. In season ending 1997, Richmond were promoted from the Championship where they stayed for two seasons before entering administration. In 1997-1998 Bedford were promoted into the highest division of rugby union where they maintained their status the following year before being relegated in 1999-2000. In the 2005-2006 season, as previously noted in section 6.4.1, Harlequins were relegated from the Premiership the season before and were immediately promoted back after one year in the lower division. This is the same story for Northampton in the 2007-2008 season who had previously been in the Premiership since its inception.

The exception to these categories is Exeter Chiefs, now known solely as Exeter. In the 2009-2010 season Exeter were promoted from the Championship to the Premiership having previously been promoted to the Championship in rugby unions first professional season; therefore spending thirteen seasons in the second-tier division. Since their promotion in 2010, Exeter finished eighth in their first season in the Premiership and they have remained in the top flight division to date; even winning Premiership titles in 2017 and 2020. Further discussion surrounding Exeter's sustained approach to rugby union is discussed in section 6.6.1.1.

6.4.2.3 National League One

National League One has seen the most title winners over the past twenty five years since the professionalisation of rugby union; supporting the findings of section 6.2.3 that the third tier division is a competitive league. Nineteen different teams have won the National One Title with only five of these teams winning the title on two occasions.

These five teams include Richmond, Ealing Trailfinders, Doncaster, Esher and Otley. Whilst in the Championship it may have been categorised that these teams were Yo-Yo teams, the number of times Richmond, Ealing, Doncaster, Esher and Otley have been promoted and relegated is not nearly as many as the number of some teams listed of those in the Championship. Of the teams listed above, Ealing were promoted in 2013, relegated in 2014, before being promoted again in 2015 where they now remain in the Championship and are competing at the top end of this table. Richmond gained their first promotion in 2016 where they maintained their status for two years before being relegated and promoted again in two consecutive years. Otley first gained promotion in 2000 where they stayed in the Championship for seven years. Relegated in 2007, Otley returned to the Championship the following season. Esher gained their first promotion in 2017 and were only relegated the following season following a restructure in the Championship which saw four other teams (31% of the league) relegated; they gained promotion back up into the Championship the following year. Finally, Doncaster were first promoted in 2005 and have been a consistent team in the Championship to this date apart from in the 2012-2013 season which saw them relegated yet promoted again the following season.

All other National League One title holders have only won on one occasion. Some of these teams maintain their status as a Championship team for several seasons and some have climbed even higher and earned themselves a position in the Premiership. In addition, some have been promoted from National League One on only one occasion and have since never returned to the second-tier division either by maintaining their status in the second division, or by being relegated and not returning again. Table 13 is provided below displaying these clubs who have won just one National League One title.

Table 13: Single Winners of the National League One Trophy

1996-1997	Exeter
1997-1998	Worcester
1998-1999	Henley
2000-2001	Bracknell
2001-2002	Orrell
2002-2003	Penzance & Newlyn
2003-2004	Sedgley Park
2005-2006	Mosely
2008-2009	Birmingham and Solihull
2010-2011	London Scottish
2011-2012	Jersey Reds
2016-2017	Hartpury
2017-2018	Coventry
2018-2019	Amphill
2020-2021	The National League One did not play due to COVID-19 therefore there were no league title winners this season.

From the three leagues analysed above (Premiership, Championship and National League One), it is clear league dominance is more distributed in National League One. This may be due to the fact there are more teams within this league and therefore more opportunity however, it is implicitly evident that no one team or no few teams dominate this league. It is suggested that the further down the league structure, this would be a continuing theme with an increased number of teams in the leagues providing more

opportunity to win; therefore meaning leagues are more competitive. This descriptive analysis of league title distributions is suggesting that the National League One is more competitive than the Premiership as there is a higher distribution of league titles contrasting the findings of section 6.2.

For the Championship, whilst there have been thirteen different winners, six of these teams gained their first Championship title due to being relegated from the Premiership in the previous season. This therefore highlights the advantage that these teams hold in the second tier division. Three other winners of the thirteen, did not gain their first league title following relegation and instead, their title win came after a period of success as a consequence of their performance in the Championship. Exeter, Bedford and Richmond had never previously spent any time in the Premiership before their first league title and therefore sustained natural development into the top tier of English rugby union.

The Premiership shows signs of dominance by three team in particular; London Wasps, Leicester Tigers and Saracens, all with five or more title wins over the past twenty five years. Most of these wins have come from a short-term dominance by the team with titles being won over consecutive years potentially whilst they may have a strong coach, group of players or a winning play formula. However, it should be a cause for concern that 72% of league titles have gone to only three teams. Theory outlined in section 3.2 identifies that interest in sport is created by increased levels of competitive balance, and therefore there needs to be closer competition within the Premiership division of rugby union. If this trend continues, formation of oligopolies will start to emerge and in which case the top-tier of English rugby union will be in a state of limited competition by a small number of teams.

6.4.3 Playoffs

The final consideration analysing dominance across the rugby union league structures are the playoffs. Playoffs are embedded into rugby union as a governance tool to encourage higher levels of competition and ensure no one team can run away with the league title. This factor to increase competition is not uncommon in sport and is seen in leagues all over the world such as European football, MLB & Olympic game team sport tournaments.

Hogan and Massey's (2018) paper highlights an improvement of competitive balance within rugby union due to the inclusion of playoffs. Whilst Hogan and Massey (2018) discuss this regarding the short-run competitive balance, it is worth considering the impact of playoffs on the leagues considered within this thesis. Playoffs are an additional competition, played after the regular season has concluded, involving the top competitors to determine the league Champion or in some cases the club who will gain promotion. Whilst a dominant team may still maintain their dominance through playoff games, it provides further opportunity to teams who have also played well in the season but for one reason or another have fallen short of finishing top of the regular season. In English rugby union, playoffs are utilised differently in individual leagues.

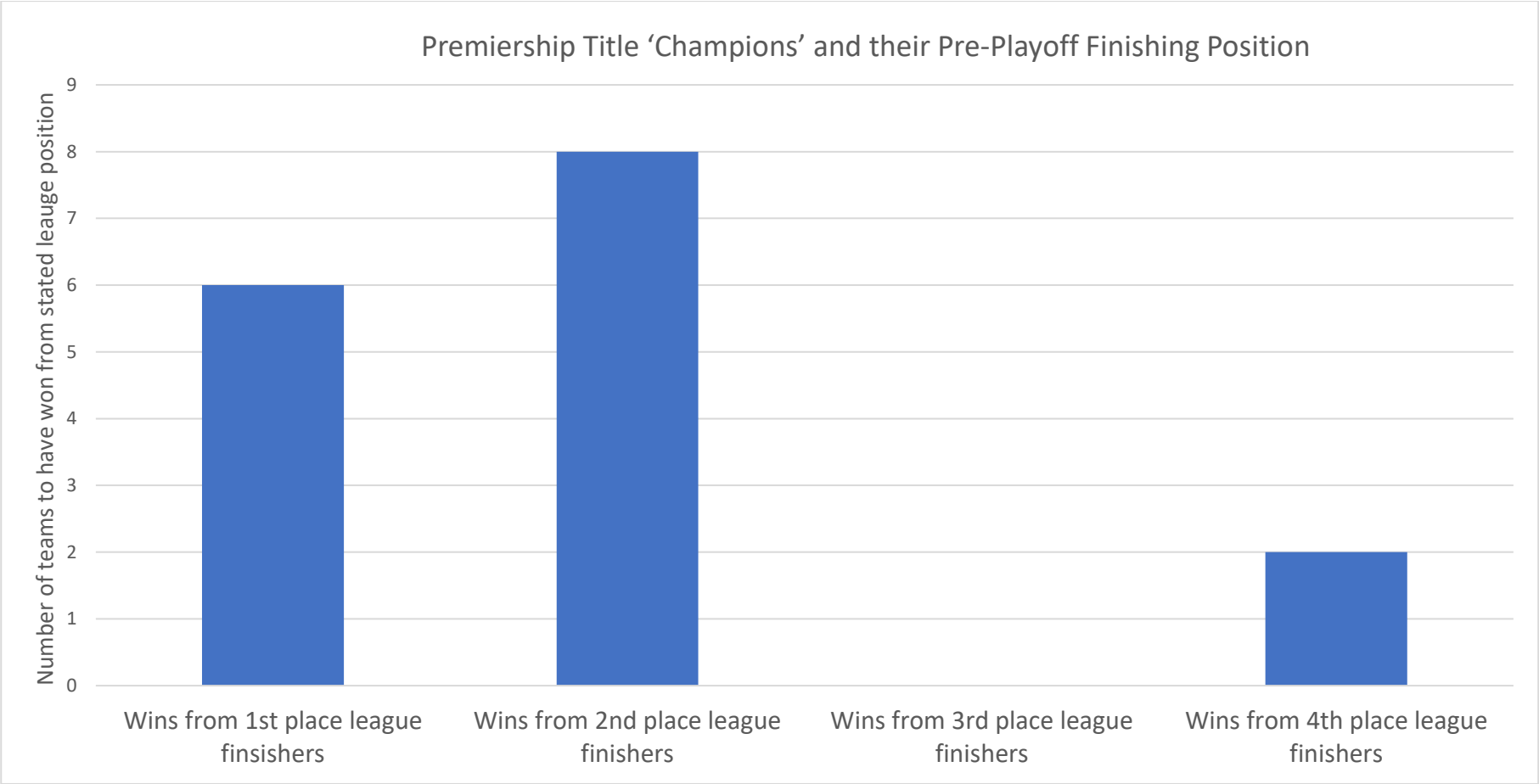
6.4.3.1 Premiership

From the twenty five years of data, play offs have not always been implemented as they are today; if at all. Playoffs in the Premiership did not exist until the 2001-2002 season where they were controversially embedded halfway through a potential fourth successive winning year for Leicester Tigers in an attempt to balance competition (Section 2.4). In addition, they were also introduced only one season after embedded bonus points into the league and therefore two governance measures were implemented in quick succession. It was decided that the winner of an eight-team playoff were to be titled champions rather than the traditional regular season winner. However, this approach was quickly re-considered, and the playoffs changed for the 2002-2003 season. A new format was introduced for the 2002-2005 seasons. Instead, the Premiership title winner was determined by a smaller three team playoff rather than the eight originally suggested. The team who finished in first position in the league were automatically through to a final with their competition being decided between second and third placed finishers. The winner of this final were the team crowned the league champions for that given year.

The playoff structure was reformatted again for the 2005-2006 season comprising of two semi-finals; the first between first and fourth place finishing positions and the second between second and third place finishing positions. The two winners of these fixtures would then play a final time to determine the league champions for that season. This format has been continued since its implementation and is how the winners of the Premiership are determined to date.

Since the implementation of the playoff system as it is currently recognised, the Premiership has seen six occasions where the team who finished first in the league, also won the playoffs to become champions: Sale Sharks 2005-2006, Leicester Tigers 2008-2009 & 2009-2010, Harlequins 2011-2012, Saracens 2015-2016 and finally Exeter most recently in the 2019-2020 season. This shows that whilst there should be a 25% chance of winning the title, 37% of the time, it has come from a team who finished highest in the regular league table.

Figure 10: Premiership Title ‘Champions’ and their Pre-Playoff Finishing Position



The most rewarding league position to finish in the Premiership is second place. From the sixteen seasons analysed, 50% of league champions have been claimed by teams who finished second in the league as seen in figure 10. It could be argued that when finishing second, there is a lack of pressure to win and therefore, it is this lack of pressure that creates more opportunity to succeed in the final.

It is also interesting to note that whilst a team could finish fourth in the league table and be beaten by three other teams that year, they could still go on to win the Gallagher Premiership title, as has been the case on two occasions. Both Harlequins and Saracens have won the Premiership title from fourth position in the league standings before any playoff games were played. During the 2014-2015 season, Saracens beat Northampton Saints, Bath and Leicester Tigers, who finished above them in the table, during playoffs to earn the title Championship. In the final league analysed in this data set (2020-2021) Harlequins finished fourth behind Bristol Bears, Exeter Chiefs and Sale Sharks before beating them in the playoffs. However, this has only occurred twice from sixteen occasions.

What seems more interesting to note is that no team to have finished in third position has ever gone on to be crowned champions. When looking at this specific data further, the average point difference has been calculated between first and second place, second and third place, and third and fourth place (figure 11).

Figure 11: Premiership Average Points Difference between league positions 1-4



The information presented in figure 11 above shows an average difference of 3.81 league points between first and second position across the 16 years analysed. When looking into the points difference between second and third position, the average point difference has increased by 19.7% to 4.56. Finally, average point difference increases again, between third and fourth place league positions with a points difference of 5.25.

This consistent increase of average points shows that whilst the gap between first and second place is a large point factor, this gap gets wider the further you get down the league table; ultimately suggests a bigger disparity between first position and third and fourth and supports the playoff findings results making it harder for these teams to win the division title regardless of the opportunities the playoffs presents. For this reason, a playoff tournament of only the top two teams should be considered by league organisers. Currently, those finishing in third or fourth position have only a 12.5% chance of winning the title by participating in playoffs games. This small chance is not enough to justify their inclusion in the playoff tournament and demand for players to play extra games.

6.4.3.2 Championship and National League One

Championship and National League One playoff formats are different to that of the Premiership. The third tier of rugby union, currently known as National League One, does not and never has, applied a playoff to determine a promotion place into the Championship; unlike the two tiers higher than them. Instead, the promoted team is decided based on the league finishing position and automatically applied. Whilst it is unknown the reason for this, evidence from HICB scores (section 6.2) and distribution of league titles (section 6.4.2) identify that the National League One already has good levels of competition without the need for playoffs. Analysis for National League One therefore cannot be undertaken when considering playoffs. Whilst there have been no playoffs to determine promotion within the league, the number of teams promoted within a given season has changed over the years. The below table (14) identifies this. Changes have been made for different reasons; sometimes to increase teams in the leagues above and sometimes to promote competition between leagues.

Table 14: Changes in the National League One Automatic Promotion Places

1996-1997	Top 2 teams are promoted
1997-1998	Top 4 teams are promoted
1998-1999 -> 2007-2008	Top 2 teams are promoted
2008-2009 to present day	Top team is promoted

The Championship has implemented significantly more changes to its promotion opportunities over the past twenty five years compared to the Premiership and National League One. The below table (15) details the extent of these changes and sees how the second tier of English rugby union has changed from implementing a two-team playoff, to an eight-team playoff, to scrapping the playoff system completely.

Table 15: Changes in the Championship Promotion Places since Professionalisation of the Sport

1996-1997	Teams finishing 1&2 are automatically promoted. Playoffs occur between teams 3&4 from National League One and teams 9&10 from the above league (currently known as the Championship) for two remaining 'promotion or survival' status.
1997-1998	Teams finishing 1&2 are automatically promoted. The third place team play the 'due to be relegated' team from the above league to see who gains the last available promotion or survival slot.
1998-1999 -> 2008-2009	Automatic promotion awarded to the top finishing team based on league position.
2009-2010 -> 2011-2012	8 teams enter a 2x group playoff system (2 groups of 4) with the promotion place awarded to the 1 team winning the final after 9 extra games.
2012-2013 -> 2016-2017	Top 4 teams enter playoffs consisting of 2 semi-finals. The winner of these go to a final where winning team is promoted.
2017-2018 -> 2018-2019	No Playoffs -Top finishing league team is promoted
2019-2020	League Cancelled due to COVID-19. A best playing record formula was applied to determine league position. Top team was promoted
2020-2021	Impacted due to COVID-19, the top two teams played a two-legged paly off with the winner promoted to the Premiership.

It is apparent that the RFU are yet to determine a promotion structure that adequately works for the Championship after many years of trailing different options; and therefore may reflect why the Championship is identified as the least competitive of the three

leagues so far in this thesis. In 2018, the Rugby Football Union decided to scrap the Championship playoffs and the winners of England's second tier competition were to be promoted automatically providing the given team satisfies the 'minimum standard criteria' to play in the top flight (BBC, 2017). Even after deciding to remove playoffs, this option was quickly reverted back to, when the league fell into crisis during the COVID-19 period (2020-2021).

Pre-1999, when promotion places had to compete with relegation teams from the league above, the data in this thesis identifies this as an unnecessary decision due to the higher ranked teams always gaining the optimum output; ultimately suggesting the playoff games were irrelevant for this period. Equally, regardless of playoffs, all teams who get close to the Championship title are not always eligible to be promoted as all teams must meet a minimum standards criteria (page 65). In 2012, London Welsh won the Championship title with a 66-41 aggregate victory over Cornish Pirates (Belfast Telegraph, 2012). However, a decision made by the Professional Game Board and approved by the RFU stated that the Richmond based team had not achieved the minimum standards criteria and were therefore not eligible to gain promotion. Instead, Premiership side Newcastle Falcons were due to be saved from relegation and would have been had London Welsh not appealed the decision and won.

In the same year, promotion contenders Bedford Blues suggested it would be financially impractical for them to be promoted even if they were granted the opportunity. The Chairman of the club at the time, Geoff Irvine, highlighted the significant amount of money that would be needed to play and compete in the Premiership (BBC, 2012) and suggested at the time it would not have been worth the financial risk. Having previously thrown money and gambled at promotion, Bedford almost went out of business and therefore have since decided there is no reward beneficial enough and worth gaining promotion into the higher league division. As well as on-pitch performance disparity highlighted in the discussion above surrounding Yo-Yo teams, the Bedford Blues owner questions the financial consequences of being promoted and relegated or at least the gamble of this.

Whilst the changes of the playoff format within the Championship have been dramatic, it is unclear if any of these changes have made a difference to the league or increased

competitive balance within the league. In the seasons where playoffs have been implemented, (1996-1998 & 2009-2017) only once has a team been promoted (and awarded the Championship title) outside of the top two positions in the regular season. This was in the 2011-2012 season where London Welsh finished fourth in the table but only fifteen points behind top of the league standings Bristol. From the other nine occasions, promoted teams have finished in the top two league positions at the end of a regular season.

With more emphasis than ever before on player welfare (World Rugby, 2022), it would be beneficial for the Championship league to have a two-team final. This way, large number of excess games are not required, and instead the two best performing teams have an opportunity for the Championship title as it is likely to be one of these teams regardless of how many clubs compete. As mentioned previously, this suggestion is also applicable to the Premiership where the best chance of winning the league comes from first and second position. A single final playoff still allows for increased competition, that playoffs are designed to do, without over playing players across other teams who are unlikely to gain from the increased number of games seen within the playoff format (see figure 10, page 154).

To contrast the findings from the data, the element of playoffs does increase the uncertainty of outcome, albeit potentially only slightly. It allows players and fans of clubs who do not finish at the top of the table to believe they still hold an opportunity. This therefore suggests that playoffs have become a spectacle of the game and are used more as a fan engagement tool than a competitive balance policy. Extra playoff games at the end of a season allow clubs additional revenue income with more games and more ticket proceeds; especially if these games are played at mutual bigger venues such as Twickenham. From a policy perspective, it therefore questions what the priority of the league organisers is; whether this is monetary reward, or opportunity to promote a balanced competition. This concept and the element of playoffs should be further explored in UOH research but is discussed with industry participants in the following chapter.

6.4.3.3 Evidence from the field

As previously identified, the quantitative findings of the thesis have been triangulated through discussion with rugby union experts embedded in the game directly. Due to the

anomalies regarding playoffs across the leagues, it was important that this topic area was a subject of conversation with interview participants. Although initially discussing the concept of bonus points within the game, participant two links this to the theory of playoffs.

Here participant two identifies a need to collect more bonus points in the earlier rounds of the playoff tournament, in order to rest key players before the final matches to conclude the season. This may align to the discussion in section 6.4.3.1 (page 155) where teams who finish in fourth position have gone on to win a Premiership title. Should teams have already 'done enough' to secure a spot in the playoffs, it may be determined that there is no longer a requirement or drive to finish in a top finishing position and instead rest players to maximise competition in the playoff format.

Furthermore, once provided with the definition of competitive balance, participant one suggested that the introduction of playoffs were a reason for increased competition. Participant one refers back to when "Leicester Tigers top the table every year and then got to the final just somehow couldn't bring the trophy home". This statement in turn underpins the concept of competitive balance due to other teams in the league that season winning rather than the one who has dominated the league and finished top; ultimately supporting the justification of the playoffs.

Participant one also identifies a short and a long-term effect of playoffs. Here it is identified that a team who does not have a lot of players out on international duty may be able to dominate a small number of games to increase their chances of being in the playoff positions at the end of the season. Whilst the teams may not be able to compete during 'normal' match days, this opportunity allows them a chance at promotion via the playoffs. Participant three furthers this by identifying the contribution of 'cup' tournaments and the ability that creates to rotate players who predominantly compete in the regular league fixtures on a weekly basis. This creates an interesting parallel to that of the Premiership during international fixtures, however rather than rotating players, these players are going off to play an international format of rugby allowing others in the team the opportunity to play in the domestic league. The concept of international fixtures in English rugby union is interesting as it differs from other sports. This point is further discussed in section 6.6.

Furthermore, participant one identifies that playoffs create “more energy at different times during the season, also of course you’ve got the ability for the market here is to build a showpiece event”. This links back to the findings on page 160 suggesting that the competitive balance measures are in fact just adding to the spectacle in the game for players and fans. What is interesting is that this point aligns specifically to UOH (section 2.3.2) and directly contradicts the need for any line of ACB enquiry. Whilst the ACB line of enquiry has produced some interesting findings throughout this thesis, if it is not a consideration for those involved in the game, is there really a need for increasing competition within the sport?

To conclude the discussion of playoffs, participant three, from the Championship league structure, identified COVID-19 as an influential factor in their answer: “if you were to ask me this two years ago, I’d say [...] that there is a good chance that any team can finish anywhere”. However, recognising COVID-19 and the cuts to funding that the pandemic has forced into the game, participant three highlights a divide in Championship teams. They suggest that only the teams who currently compete on a full-time basis, with a large amount of money, have the means to dominate the Championship league and therefore the aspect of introducing playoffs to the Championship would only affect those who could compete in the top half of the league anyway.

6.4.4 Dominance Conclusion

To conclude this section of discussion around dominance, interview participants were also asked to consider this wider concept of dominance within rugby union. Participant two, involved within the Premiership, does not believe the first division is dominated by a small number of clubs due to the league having three different winners in three years (participant two here refereed to the 2021-2022 season which has not been included in the secondary data collection). Participant two furthers this by introducing a theory of competitive cycles. Here they suggest that when a team is at the top of a league, others around are looking at what they are doing and how to beat them. However, once at the top, that team has no-one to compete with and therefore stop innovating resulting in other teams overtaking them for a period of time; and this cycle continues. If this is the case within rugby union, this ‘cycle’ of teams should suggest that no one team is able to

dominate before other teams are competing with them both on and off the pitch. However, section 6.4.2 identified only a small number of teams able to win league titles therefore suggesting that maybe it is only these few teams able to compete within the 'cycle'.

Continuing the theme of dominance, participant one recognised that within the Premiership, "clubs have been there most of the way through", identifying that only some teams have gone up and down. This questions the leagues competitive balance as the same teams are consistently in the Premiership and therefore questioning the concept of promotion and relegation (Noll, 2002). What is however clear from the analysis undertaken in this section is that the National League One has seen the most number of teams claim the title trophy meaning that in this league, there is increased opportunity for those within the league.

6.5 Salary Cap

Salary caps are an important discussion point when looking at rugby union as a sport. In professional sports, a salary cap is an agreement or rule that places a limit on the amount of money that a team can spend on player salaries. In the systematic review (section 2.4.3) it was highlighted that salary caps are commonly used in North American sport leagues, but less so in European sport leagues. Fort and Quirk (1995) identify that within North American sport leagues, salary caps were the only effective measure to maintain financial viability and competitive balance. Lenten (2009) supports the effectiveness of salary caps on competitive balance within Australian Rules football. More recently, Formula 1 have introduced a salary cap into the sport in an attempt to increase competition ensuring no one team has an unfair advantage. English rugby union implemented a salary cap in its early professional era and employs a 'Salary Cap Director' as an independent from clubs who has responsibility for its operation and compliance. Where a club exceeds the salary cap, further sanctions against the club may be implemented to halt their ability to be able to compete within a league.

6.5.1 Breaches

The Salary Cap Director (introduced in section 4.4) has powers to conduct an investigatory audit. If this audit identifies a breach of the salary cap by £20,000 or less,

with the agreement of the Salary Cap Director, that matter is typically dealt with summarily. All other matters, however, are dealt with by a disciplinary panel, comprising three people, appointed by Sports Resolutions where the finding of a breach can lead to significant sanctions including a tiered point deduction, from four points for a breach of up to £75,000 increasing to a forty point deduction if the breach is over £250,000. In addition, fines may be applied.

Morgan (2020) identified more than half of top-tier English clubs are exploiting a Premiership rugby loophole which allows them to potentially circumnavigate the salary cap threshold. Morgan (2020) furthers this and suggests that critics believe the rule is open to manipulation as players can be recalled by clubs at no extra cost for minor competition matches so long as they are providing cover for an injured player. In addition, players can feature in the Premiership Rugby Cup or Shield without their salaries counting towards the cap.

There are many teams suggested to be taking advantage of the chance to manipulate their salary cap wage bill (Morgan, 2020). Both Bath and Gloucester have previously utilised loan agreements to bypass the rule. However, the most recent example, and arguably the most high-profile example, is the case study of Saracens who were served the largest sanction in the history of rugby union's professional era as their spending was scrutinised.

6.5.2 Saracens – A Case Study

Saracens Football Club are an English professional rugby union club based in North London who, up until the 2020-2021 season, had only ever competed the highest tier competition in English rugby. Arguably the most dominant club in World Rugby of the last decade, Saracens have won the English Premiership on five occasions, most recently in 2019. In addition, Saracens were crowned European champions in 2016, 2017 and 2019. However, their ability to be able to do this raised question in the rugby community.

In March 2019, Premiership Rugby responded to allegations of a salary cap breach by Saracens and announced they were to investigate the allegations. Saracens were

suggested to have breached the salary cap as they failed to disclose player payments across a number of years and ultimately taking them over the £7 million salary cap.

Following investigations, in November that year (2019), Saracens were found guilty of failure to disclose payments to players and while no details from the investigation were made public at this time, the club denied they had attempted to cheat the salary cap. Saracens were fined £5.3 million for past breaches and deducted the maximum of twenty five premiership points.

The club was given an ultimatum by Premiership Rugby to avoid any consequences. This included:

- Cutting £2m from their wage bill by the end of January 2020
- Handing back the Premiership trophies from 2017 and 2019
- Nigel Wray's resignation as chairman
- The appointment of a new independent chairman.

Due to the fact rival clubs had already sorted their playing squad for this time, Saracens could not find new teams for some of their highest earners. Although Nigel Wray did resign, new interim chief executive Ed Griffiths told Premiership Rugby they could not get under the salary cap but also would not give back the trophies. The refusal to comply encouraged Premiership rugby to make two changes to the salary cap regulations mid-season. These changes meant Premiership Rugby now had greater power to force a club to open its books and could deduct seventy points if that club does not comply. For this reason, on the 18th January 2020, Premiership Rugby released a statement to confirm that Saracens would be relegated at the end of the season and would therefore play in the RFU Championship for the 2020-2021 season by being deducted a further seventy points.

Later that month, Premiership Rugby released the full written decision of the Independent Disciplinary Panel who imposed the sanctions against Saracens. The report finds that past breaches include Saracens being charged with exceeding the 2016-2017 £6 million salary cap by £1,134,968.60 and again in 2018-2019, when the salary ceiling was £6.4 million, this time by £906,505.57. The report (The Sports Dispute Resolution Panel Limited, 2019) identifies that in order to 'bend' the salary cap rules, Nigel Wray,

Saracens Chairman at the time, entered into property co-investments with players and also made player appearance arrangements at corporate events which he subsequently paid for using a third-party company.

The report goes on to justify the further seventy points point deduction. Saracens were also deducted points due to the events that occurred between 2016-2019. Regulation 14.3[c] sets out that, for breaches of the Senior Ceiling of over £650,000, a thirty five point deduction shall be imposed (The Sports Dispute Resolution Panel Limited, 2019). There are no points deduction for breaches of under £350,000. As such, a points sanction of thirty five points was applicable for both the 2016-2017 season and the 2018-2019 season. A total points deduction of seventy points was therefore the “starting point” for the Panel (The Sports Dispute Resolution Panel Limited, 2019, p103). Whilst Saracens attempted to reduce this by arguing over technicalities, the Panel suggested that the club acted recklessly and intentionally:

“Saracens must have known that there was a risk that at least some of the transactions that it and its Connected Parties entered into with Players might be included in Salary by the SCM. In our opinion, it acted recklessly in entering into these transactions without consulting him and seeking to elicit his views”

(The Sports Dispute Resolution Panel Limited, 2019, p86).

In total, Saracens were fined £5.3 million and deducted 105 points from the 2019-2020 season to ensure relegation. For the 2019-2020 season, Saracens concluded the year on minus thirty eight points. They won thirteen of their twenty two games played, lost eight and drew one, meaning that if there had been no governance interference they would have finished joint fourth in the league table with Bath rugby on sixty seven points. Had the additional seventy points not been deducted, Saracens would have finished the season on thirty two points. This would not have seen them relegated as Leicester Tigers only collected twenty nine points during this season meaning it would have been the East Midlands club to lose their place in the highest tier division; ultimately confirming the further seventy points deduction was required from Premiership rugby.

Table 16: Saracens League Finishing Position and Win Percentage for each season in the Premiership

Season	League finishing position	Win percentage Score
2019-2020	12 th (relegated)	59.09
2018-2019	2 nd (crowned as Champions)	72.73
2017-2018	2 nd (crowned as Champions)	72.73
2016-2017	3 rd	72.73
2015-2016	1 st (crowned as Champions)	72.73
2014-2015	4 th (crowned as Champions)	63.64
2013-2014	1 st	86.37
2012-2013	1 st	77.23
2011-2012	3 rd	72.73
2010-2011	2 nd	81.81
2009-2010	3 rd	68.18
2008-2009	9 th	40.9
2007-2008	8 th	50
2006-2007	4 th	54.55
2005-2006	10 th	36.36
2004-2005	5 th	54.54
2003-2004	10 th	36.36
2002-2003	9 th	36.36
2001-2002	10 th	31.81
2000-2001	5 th	54.55
1999-2000	4 th	63.64
1998-1999	3 rd	61.54
1997-1998	2 nd	81.82
1996-1997	6 th	54.55

Table 16 above, shows the league finishing position and win percentage scores for every season Saracens were in the Premiership. As suggested in section 6.5.2 (page 164), Saracens Football Club are arguably the most dominant club in world rugby of the last decade, a statement supported by the information in the table. Before Saracens were relegated to the Championship, their lowest league finishing position in ten years was fourth meaning that in the past decade they have consistently qualified for both Premiership playoffs and the first division of the European Championship.

In the 2019-2020 season when Saracens were relegated, the club retained some of their high-profile players, however their on-pitch performance did decrease. A win percentage score of 59.09% is their lowest in 10 years and over 25% lower than their highest value in the 2013-2014 season. The exact reason for this is not known, however, regardless of the number of wins, Saracens league position was pre-determined for the 2019-2020 season. They may have chosen to develop their younger squad members or rest their players who previously played each week with minimal recovery. Alternatively, the club was going through a period of change. Motivation of staff and players could have been low and could have impacted performances. In addition, some Saracens players departed the club as Saracens made attempts to comply with the salary cap. However, the majority of elite names at Saracens and in particular their marquee players, Owen Farrell and Maro Itoje, remained at the club.

Premiership Rugby have only fined Saracens from the 2016-2017 season, albeit they did receive 'a clear yellow card' warning in 2015 (The Sports Dispute Resolution Panel Limited, 2019). For this reason, it is unclear if the elitism portrayed by Saracens is due to the fact they have always spent higher than any other club in the Premiership. Having said that, Saracens are one of few teams who are ever present (up until 2020) in the Premiership. Wasps, Gloucester, Leicester Tigers, Bath, Sale Sharks and Saracens are the only teams never to have played in a different league besides the Premiership. This identifies their ability to compete at the highest level since the professionalisation of rugby.

Table 17: League Finishing Positions for six teams who have played every season in the Premiership before Saracens Relegation

	18/19	17/18	16/17	15/16	14/15	13/14	12/13	11/12	10/11	09/10	Total	Average finishing position
Saracens	2nd	2nd	3rd	1st	4th	1st	1st	3rd	2nd	3rd	22	2.2
Wasps	8th	3rd	1st	3rd	6th	7th	8th	11th	9th	5th	61	6.1
Gloucester	3rd	7th	9th	8th	9th	9th	5th	9th	3rd	7th	36	3.6
Leicester Tigers	11th	5th	4th	4th	3rd	3rd	2nd	2nd	1st	1st	69	6.9
Bath	6th	6th	5th	9th	2nd	5th	7th	8th	5th	4th	80	8
Sale Sharks	7th	8th	9th	6th	7th	6th	10th	6th	10th	11th	57	5.7

For the ten years before Saracens were deducted points and therefore relegated, an average league finishing position for each team who have never left the Premiership has been calculated. Whilst these teams could be argued to be the most consistent having never been relegated to a lower division, there is still disparity between these six clubs. Table 17 identifies that Saracens have an average finishing position of second for the ten seasons analysed. However, their closest competitor is Gloucester who are over a position away from Saracen's dominance. Following this, the next closest rival is Sale Sharks who are over three league positions behind the dominant team of Saracens.

Whilst it is only evident that Saracens have breached the salary cap system since 2015, based on the data collected, it is clear the club has a performance advantage over other teams potentially due to the salary cap breach. Their on-pitch performance, particularly over the past ten years, is unrivalled by other clubs in the league. It was therefore a necessary requirement for Premiership rugby to penalise Saracens as other clubs within

the league have been at a disadvantage because of their overspend. Such a large fine and points deduction had not been seen before the case of Saracens but will hopefully deter other clubs from flouting the rules. This is not however the largest sanction imposed in rugby. In 2010, Melbourne Storm were penalised for a major breach of the National Rugby League's (Australia) strictly enforced salary cap. The National Rugby League stripped the Melbourne Storm of the 2007 and 2009 Telstra Premierships, the Minor Premierships of 2006, 2007 and 2008 and of its 2010 competition points after confirming a series of salary cap breaches amounting to around \$1.7 million (AUS) over five years (Wilson, 2010). The club was furthermore fined \$500,000 and were forced to return \$1.1 million in prize money (Wilson, 2010). This therefore leaves the question of whether Premiership Rugby did enough to penalise Saracens or if more should have been done. Saracens have not lost any of their league titles collected over the past five years in which other teams could arguably be entitled to.

In the 2019-2020 season which saw Saracens relegated, Exeter Chiefs finally won the Premiership title after beating Saracens in the league positions for the two years prior. In both the 2018-2019 and 2017-2018 seasons, Exeter Chiefs finished first in the table before playoffs winning seventeen from twenty two games compared to Saracens who won sixteen on both occasions and placed second each time. Having been more consistent over the season, it is possible that Exeter would have felt the title, on both occasions, should have been theirs, given the fact Saracens were breaching the salary cap in the surrounding years. Don Armand, an Exeter player, suggests that the salary breach allowed Saracens players to concentrate on their game more with less financial stress as they were being well looked after (Kitson, 2020). Armand stated "You can just focus on your rugby and your fun trips away... It makes it a lot easier to focus on rugby day in, day out" (Kitson, 2020) implying that players were in a better position financially, sociably and psychologically if playing for Saracens.

Given the fact that Saracens were promoted back into the Premiership immediately after being relegated, and only spent a total of 10 games in the Championship due to Coronavirus implications, many will feel the sanctions towards Saracens were not enough. For Saracens to return to the Premiership in the 2021-2022 and compete as usual, it is yet to be decided if the sanctions and consequences placed on Saracens were harsh enough for the actions. Saracens did not have to lose any of their high-profile

athletes as the Championship has no salary cap to comply with and therefore the club could retain all of the players on the same wages as it did before. However, following their promotion in the final season of this thesis's data set, Saracens have been promoted and will have to comply with the Premiership salary cap under close observation from stakeholders of the sport. Whilst the club still has the financial backing of sponsors, RFU funding, broadcasting deals and supporters, it is likely that in the short term, very little will change.

Saracens are not the only club who have been accused of breaching the salary cap. It is important to consider other dominant teams operating in a similar capacity to that of Saracens in order to compete at the highest level. More recently, top-tier teams such as Leicester Tigers and Harlequins have each been in the media due to questions around their finances. As it currently stands, the salary cap regulations are not fit for purpose evidenced by the actions of Saracens. Therefore, a review led by former government minister Lord Myners suggests breaches should be subject to tougher fines, return of prize money as well as potential suspensions (Scott & Jones, 2020). Other recommendations, in what would be a radical overhaul of the salary cap regime, include 'stronger investigatory powers' and making Premiership Rugby, club executives, players and agents more accountable. However, Premiership Rugby has not committed to implementing Lord Myners' recommendations. Whilst there will be a consultation with the clubs, it is unlikely that those clubs who are currently 'bending' the rules for their own benefit will be keen on the idea. It may however be a threat strong enough to provoke change within the current failing system.

In section 6.2, HICB was used as a measure to assess competitiveness across leagues. Here it was highlighted that competitive balance in the Premiership was getting better over time since its inception in 1995. However, the following section (6.3) questioned the impact of bonus points on this. Instead, there should be a consideration of the salary cap. Introduced in 1999, HICB scores have since decreased identifying that the salary cap could be a contributing factor to this. In addition, recent years have seen a strong buy in from teams regarding the rules of the salary cap. To investigate this factor affecting competitive balance, the salary cap will be a key discussion point when interviewing the CEO of a Premiership team (section 6.5.3, below) to understand its true impact on sporting organisations and the overall game.

6.5.3 Evidence from the field

The salary cap was a key theme embedded into the interviews due to its discussion in the chapter above. The immediate identification of the salary cap impacting competitive balance noted by participant two within the first three sentences of the interview provides an insight as to just how important this competition measure is to those within the game.

Discussions with participant three, from within the Championship league structure, were very different to that of the other participants. The Championship does not currently operate salary cap restrictions within the league however, if aiming to gain promotion, teams must meet salary cap regulations to enter the higher league. Participant three identified a split within the Championship teams, since COVID-19 (see section 4.3), of those teams who have remained a fully professional team “who operate on a full-time basis” with “full-time contracted players that are funded on a full-time salary” and those teams who are operating on a part time basis. Participant three goes on to suggest that because of this split, the impact of the salary cap in the Premiership may mean different things to different clubs, going on to suggest within the Championship, budget it is less about what you cannot spend and more orientated around what you can afford to spend. Participant three identifies that for one half of the league, it is crucial to operate as a business with an aim to break even or better still, make profit “which will then enable us to put more money into that salary”. Furthermore, they identify the other half of the split in sides, being able to spend what they like due to the concepts cited in section 2.4.1 as the ‘Sugar Daddy’ effect (Sass, 2014; Dietl, Grossmann & Lang, 2011). This is supported by participant two who also suggests there are some Championship teams with far more money than others. By comparison, participant one identifies that this is not only a consideration for the Championship as they believe the salary cap “stopped the absolute dominance of a number of very rich people just taking over the [Premiership] league”.

As mentioned above, participant two identified the theme of the salary cap after the definition of competitive balance was provided with no probing from the researcher. This therefore reflects the significance it holds within the Premiership. Initially, participant two identified that the cap was “to be reduced to £5 million from the £6.4

million” due to no team generating income during the COVID-19 pandemic. They go on to suggest that when COVID-19 hit and “sport was in a predicament of all of its income, just stopping overnight [...] there were certain measures that were taken in order to make sure that the clubs survived”. However, the example of Saracens in section 6.5.2 is suggested not to be the only way to create ‘loop-holes’ in the salary cap ruling and refers to marquee players (see section 4.4) being a way in which some teams are able to spend more money than others. Despite Premiership Rugby implementing a hard cap (page 62), it appears that the salary cap is currently not working in the way it was designed – to cap the spending of a team. Whilst participant one and participant two both comment on the “fair” sanctions directed to Saracens (see section 6.5.2), more needs to be done to ensure no one club has an unfair advantage (Fort and Quirk, 2010) due to financial manipulations of the cap.

To align this to the findings of the quantitative data collection, it is crucial for the cap to be closely monitored and strictly penalised to ensure the mistakes that have happened in the Premiership, do not occur again. It is yet unknown if the sanctions placed on Saracens have deterred other teams from identifying loopholes to increase player wages. However, it is clear that these loopholes have allowed teams to gain an unfair advantage in which they should be penalised to ensure fair competition.

6.6 European & International Competition

The results and discussion paragraphs so far in this thesis have begun to form categories of teams who display similar trends. Section 6.4.1.2 identified Yo-Yo clubs as teams who bounce from one league to another; predominantly between the bottom of Premiership places to the top of Championship places. This next section will explore European and international competition and identify any further groupings in the data as they emerge. Identified in section 2.4.5.4, international competitions in rugby union operate extremely differently to that of other sport leagues who utilise break weekends. It is therefore insightful to consider the impact of the rugby union model on competitive balance in its current form.

6.6.1 The European Rugby Champions Cup

Previously known as the Heineken Cup for sponsorship purposes, the European Rugby Champions Cup is a top-tier competition for clubs who predominantly compete in the European domestic leagues. In previous years, six or seven English teams have been included in the European Rugby Champions Cup, per year, dependant on if the seventh place team qualified higher than the seventh place French team. In its current format, twenty four teams in the league are made up of the following: eight teams from England based on their position in Premiership Rugby, eight teams from France based on their position in the Top 14, eight teams combined from Ireland, Italy, Scotland and Wales based on performances in the United Rugby Championship (previously Pro14). In addition, the league includes the winner of the Challenge Cup (the European second-tier competition) if not already qualified.

Clubs from England joined the competition in the 1996-1997 season following the countries move to professionalisation. Since this time, the competition has seen ten occasions where an English club has won the title, identified in table 18 below and a further five occasions where an English team has finished runner up.

Table 18: English European Rugby Champions Cup Winners

Bath	1997-1998
Northampton Saints	1999-2000
Leicester Tigers	2000-2001
Leicester Tigers	2001-2002
London Wasps	2003-2004
London Wasps	2006-2007
Saracens	2015-2016
Saracens	2016-2017
Saracens	2018-2019
Exeter Chiefs	2019-2020

Saracens have been the most successful English team in this competition with three Champions cup titles, two of which were in consecutive seasons; 2015-2017. This aligns closely to the period of dominance Saracens also evidenced in the Premiership. From the 2015-2016 European cup campaign, until the 2018-2019 season where Saracens won their third Champions Cup title, Saracens finished in third place or above in the corresponding Premiership seasons. This therefore highlights the ability of Saracens to perform not just on a national stage, but also a multi-national level competing with the best European teams. As previously mentioned in section 6.5.2, Saracens have broken rules in order to compete in England by breaking the respective salary cap. However, the European champions cup is yet to implement a salary cap and therefore Saracens could (at the time) compete without any sanctions brought against them.

A salary cap is an interesting discussion point within the European Rugby Champions Cup and contributes to the discussions created in section 6.5. Whilst there have been debates over recent years as to whether the league should introduce a cap (Maris, 2020), there is currently no limit on the amount spent by clubs when competing in the

league. That said, clubs are unlikely to recruit players solely for the Champions Cup and therefore instead clubs are controlled by their individual domestic league salary caps. This means that Premiership teams must meet the £6.4 million salary cap (for season 2020-2021) whilst the French teams competing in the Champions Cup have over £6 million extra budget with their salary cap around £12.65 million (Maris, 2020). In addition, salary caps are lower than that of the Premiership's £6.4 elsewhere in leagues such as Wales and therefore questions the leagues ability to strive for equal competition.

French side Toulouse is the European Rugby Champions Cup most decorated team with a total of five wins; their first in the 1995-1996 and their most recent in the 2020-2021 season recognising their strength over multiple years. In four of these five occasions, Toulouse's opponent in the final were other French teams identifying that other Nations with lower salary caps had failed to make it to the final stages of the tournament; the exception being in 1995-1996 in their final against Cardiff where salary caps were not implemented in any domestic league. This suggestion is further supported by the fact that only teams in three Nations (France, England, and Ireland) have won the title and in fact, Scotland, Wales (with the exception of 1995-1996 above) and Italy have never made it to the final stages of the competition. It is no surprise that these three Nations, have lower salary caps and therefore less spending ability than the small band of super clubs: France, England, and Ireland. This point fundamentally underpins the salary cap having a direct causal effect on team performance on the pitch.

When domestic leagues find it crucial to embed a salary cap into its league to promote competition, it questions why there has not yet been a salary cap implemented in the Champions Cup. The concept has previously been considered too complex (Maris, 2020) however, the potential of only a few 'super clubs' being capable of winning the tournament must drive change. A salary cap would go a significant way to address the European inequalities and therefore should be implemented to promote competition.

To further this, the higher salary caps across other leagues may also have unintended consequences for the attraction of the Premiership. If players from England leave the domestic leagues to pursue higher wages in other leagues, the playing talent in England will reduce. This would not only affect the Premiership and England squad selection as

potential 'best players' leave the country (Rottenberg, 1956), but also the leagues below such as the Championship and National League One, depending on what stage in a player's career they move. Should 'high' quality players leave England to play elsewhere, it is likely fan interest in the game will decrease as consumers will no longer find their role models playing in large spectacle events. Equally, consumers may wish to support overseas teams to follow their 'favourite' player which in turn would also increase the cost to the consumer. Whilst not a priority consideration for this thesis, salary cap decisions within leagues must be a key governance and policy consideration for rugby union as a sport in order for the game to develop and grow both domestically and internationally.

6.6.1.1 Premiership Teams and the European Rugby Champions Cup

As mentioned in the section above, (table 18, page 175) English teams have competed in the Champions Cup since the 1996-1997 season allowing analysis to be undertaken and aligned to the English rugby union leagues era of professionalisation. Over the past twenty four years (excluding the 1998-1999 season as no England teams competed in this year), thirteen different English rugby union teams have been included in the European league. With only thirteen teams filling up to eight spaces for this tournament, it suggests that the same teams are qualifying for the places each year. This is supported by the high number of appearances certain teams have had in this competition; as shown in Table 19.

Table 19: Total Appearances Teams have had in the European Rugby Champions Cup

Leicester Tigers	22
Wasps	18
Northampton	18
Bath	17
Harlequins	15
Saracens	14
Gloucester	13
Sale	11
Exeter	8
London Irish	6
Bristol	3
Newcastle	3
Leeds	2

Anomalies to this data set are Leeds, Newcastle and Bristol all with three or less appearances in the European Rugby Champions Cup. Leeds have reached the European league on two occasions, once in the 2003-2004 season and once in the 2005-2006 season. Prior to the 2010-2011 season, which was the last times Leeds were in the Premiership, Leeds could have been described as a Yo-Yo team (section 6.4.1.2) having spent 61.5% of their time in the Premiership and 38.5% of their time in the Championship. This therefore highlights Leeds inability to compete for European league places as instead, they were fighting for survival in the Premiership. Bristol and Newcastle have both reached the European Cup competition on three occasions sporadically over the past twenty five years. Newcastle first achieved the status in the 2001-2002, and again in the 2004-2005 season however their third event was not until seventeen years later in the 2018-2019 season. Similarly, Bristol first reached the Champions Cup league in 2002-2003, followed by the 2007-2008 season and finally the most recent season analysed in this thesis, 2020-2021. Previously identified as a Yo-Yo team, Bristol have spent 56% of the twenty five years analysed in the Premiership and

44% of their time in the Championship, supporting the categorisation previously made. For this reason, a similar justification to the lack of entries into the European Rugby Champions Cup is made to that of Leeds. Newcastle Falcons, provide a different case study to that of Leeds and Bristol. Predominantly a Premiership team, who have only been relegated on three occasions (one of these being the first season of professional rugby union), Newcastle Falcons have spent 88% of the past twenty five years in the Premiership. However, from the twenty two seasons they have competed in the Premiership, Newcastle's average league finishing position is 8.72. The current format offers the top eight finishers of the Premiership places in the European Rugby Champions Cup which is the highest number of places ever offered and in previous years has only been six or seven places. For this reason, with an average league finishing position of 8.72, Newcastle do not finish high enough in the domestic league to gain entry to a European stage.

In contrast to the above paragraph, Leicester Tigers have been a consistent club in the European fixtures. Leicester Tigers have been included in the European Rugby Champions Cup twenty two times from the twenty four years analysed in this thesis; the two occasions not in the competition have been in the two most recent years analysed (2019-2020 & 2020-2021). As previously mentioned on page 168, Leicester Tigers are one of few English teams to have never been relegated from the Premiership identifying the dominance they hold in the domestic league and may go some way to explain the number of appearances in the European league. However, whilst they have been included in the competition on twenty two occasions, Leicester Tigers have only ever won the European Rugby Champions Cup on two occasions almost twenty years ago; the first in 2000-2001 and the second the consecutive season in 2001-2002 – the same period of time they dominated the Premiership (page 145).

When removing the three anomalies from this data, (page 178), table 19 identifies only ten teams to have competed in the European Rugby Champions Cup in the past twenty five years. These ten teams form a category of clubs that consistently finish within European finishing places when the final league standings are concluded for the Premiership. For the first two years of the European Rugby Champions Cup competition, European Rugby Champions Cup finishing positions were the top four Premiership league places. Between seasons 1999-2000 and 2019-2020, these were places increased

to include the top six at a minimum and occasionally, the team who finished seventh in the Premiership also qualified. The competition has recently changed for the 2020-2021 season meaning the top eight places in the Premiership league standings will be entered into the European Cup. However, even with the addition of one extra place for the tournament, no new teams gained access to the Champions Cup in the 2020-2021 season; although Bristol did finish first in the Premiership here to qualify. This therefore contradicts the findings found within the competitive balance section (section 6.2, page 108) where it was suggested the Premiership was becoming more competitive. With the same teams finishing above eighth to qualify for the European Rugby Champions Cup, and the same teams finishing below eighth missing out, it questions the competition across the whole league and therefore suggests a need for a closer look into 'categories' of clubs co-existing within the Premiership. Whilst this study does not delve into the competitive balance of the European Rugby Champions Cup specifically, this could be an area of future research to ensure competition is being promoted outside of the domestic leagues.

Finally, Worcester provide an interesting case study when cross analysing the Premiership and the European Rugby Champions Cup. Worcester RFC are the only team to see relative success in the Premiership and never finish in a Premiership position that enabled them to compete in the European league. For the first year of professionalisation, Worcester were not in the top three divisions of the rugby union league structure in England and instead were in the 'Courage Division 4 North'. Winning the fourth division, they entered the third-tier league (now known as National League One) and won this in their first year. Worcester maintained their position in the Championship for six years before first being promoted to the Premiership after topping the Championship table in 2003-2004. Since 2004, Worcester have competed in the Premiership for fifteen of the seventeen seasons, yet they have never qualified for the European Cup. Worcester have never finished higher than eighth in the Premiership in which they achieved once in the 2005-2006 season. However, during the 2005-2006 season, entry into the European Cup was only for the top six teams. In addition, Worcester have an average league finishing position of 10.5 identifying their consistent inability to reach the required league places. To further this, since their first promotion to the Premiership, Worcester have spent 88% of their time in the top flight league.

However, they have only ever finished in the bottom four places of the league. This point raises the issue, that whilst the Premiership competitive balance statistics may be seen to have an increase in fairness, it is crucial to understand a descriptive narrative as Worcester prove not all clubs have an equal and fair opportunity at success.

To develop this point further, this thesis questions if it is possible for clubs in leagues lower than the Premiership to strive for success in the top flight division or if it is unachievable for teams to sustain growth and progress up the league structure. The first professional season in English rugby union (1996-1997) has been analysed and compared with the most recent season 2020-2021. Here, it is identified that ten of the twelve teams in the Premiership in 1996-1997, have finished the 2020-2021 season in the Premiership also. Bristol, Sale Sharks, Harlequins, Northampton Saints, Leicester Tigers, Bath, Wasps, London Irish, Gloucester and Saracens, are all in the final league standings for both the 1996-1997 and 2020-2021 seasons showing a significant lack of movement by clubs. West Hartlepool RFC, who now compete in the seventh tier of the English rugby union system and Orrell RUFC, also in the seventh tier, started the professional era of rugby in the Premiership but as of the 2020-2021 have been replaced by Exeter Chiefs and Newcastle Falcons. As previously mentioned, (section 6.4.2) Newcastle have been a consistent team within the Premiership however Exeter have not, and instead, provide a success, case study of a team who has climbed divisions and been capable of competing at the highest level.

Exeter Rugby Club, known more commonly as Exeter Chiefs, are the only club to win each level of competition within the top four tiers of English rugby union. After competing in the fourth division before the leagues turned professional, Exeter gained promotion into the third division as rugby union entered the era of professionalisation (1996-1997). Exeter won this in their first year, and therefore were promoted to the RFU Championship where they maintained their status for thirteen seasons. During this time, Exeter Chiefs moved facilities to Sandy Park to ensure the club could operate as a commercial venue (Exeter Chiefs, n.d). In fact, Exeter's most recent annual report (Exeter Rugby Club Limited, 2021, p2) suggests that their principle activity as "the playing and promotion of rugby together with providing conferencing and banqueting facilities at Sandy Park Stadium", highlighting the additional importance of factors outside of the on-field game. By doing this, Exeter were able to fund a semi-professional

status and ensure the financial backing to invest in playing and coaching talent. Having finished in second position of the Championship for three consecutive years (2007-2008, 2008-2009 & 2009-2010), changes made by the RFU meant that playoffs were to be introduced into the league and Exeter took advantage of this beating first place finishers Bristol Bears in the 2009-2010 season to gain promotion to the Premiership for the first time in their clubs history. Unlike other clubs, who have been categorised as Yo-Yo teams throughout this thesis, Exeter have maintained their Premiership status to date. From the eleven seasons Exeter have been in the Premiership, their average finishing position is 3.72 and in the most recent five years analysed have not finished lower than second place. Exeter have won the Premiership title on two occasions; once in 2016-2017 and again in 2019-2020 when they also won the European Rugby Champions Cup. Exeter Rugby Club provide the only example of sustained growth and development and therefore suggests how hard it is for a club to survive such large disparity across leagues. Sections 6.2 and 6.4 highlight the huge inequality between the Championship and the Premiership alone, and therefore for Exeter to be able to achieve such high-performance levels in all leagues suggests the club have a strategy that should be advocated by other clubs. Whilst this thesis will go no further into looking at specifically how Exeter have achieved this, further research should be centred around Exeter as a 'best model' approach for success of rugby union team and performance management. This future research can then inform other rugby union clubs, attempting to develop through league structures, in order to increase competition by allowing more movement of teams.

6.6.2 International Fixtures

It should be noted in this thesis, the impact international fixtures have on team performances within the Premiership. Unlike other sports, such as football, whose Premier league games halt for an international fixture, English rugby union continue with the season whilst elite players step away from the Premiership to play for their respective countries. It can be suggested that those players selected to represent their country are the highest performers in rugby union. For this reason, with these players missing from the Premiership during a period of international fixtures, it will no doubt make some difference to the overall competitive balance within the Premiership.

There is no limit on the number of international players a team may have. However, due to the salary cap ruling and marquee players (see section 4.4) it is not likely for one Premiership team to afford to have (and ultimately pay) all international players at a premium rate. To be selected for England, English players must play for an English team, however, that same ruling does not apply to other countries. The Premiership attracts players from all over the world and only if these countries are playing during a given time, will they be absent from their respective Premiership team.

To provide an example of the impact, the most recent tournament for the data set of this thesis is the 2020 Six Nations campaign. Originally starting on February first 2020, the European competition was later postponed due to the COVID-19 pandemic and did not return until the 24th October 2020; therefore affecting both the 2019-2020 and 2020-2021 seasons. During the 2020 Six Nations Tournament, thirty four English players were selected to represent their country. Table 20 below identifies these thirty four players and which team they were absent from during this period. The Six Nations tournament means players are absent from the Premiership for an average of six-eight weeks equating to around 30% of the season.

Table 20: A List of International Players for Respective Premiership Teams for the 2020 Six Nations Campaign

Premiership Team	Players Names	Combined England Appearances across all competitions
Saracens	Owen Farrell Mako Vunipola Jamie George George Kruis Elliot Daly Maro Itoje Ben Earl	296 *1 player made no appearances
Bath	Anthony Watson Jonathan Joseph Sam Underhill Will Stuart Charlie Ewels Tom Dunn	116 *2 players made no appearances
Leicester Tigers	Ben Youngs Jonny May Manu Tuilangi George Ford Ellis Genge	266
Northampton	Courtney Lawes Lewis Ludlam Alex Moon Fraser Dingwall George Furbank	87 *3 players made no appearances
Exeter	Luke Cowan-Dickie Harry Williams Ollie Devoto	40
Wasps	Joe Launchbury Jacob Umaga	62 *1 player made no appearances
Harlequins	Joe Marler Kyle Sinckler	99
Worcester	Ted Hill	1
Sale Sharks	Tom Curry	19
Gloucester	Ollie Thorley	9

*players were taken on camp but were not played

For the 2020 Six Nations competition, Saracens had the most players missing from their usual playing squad, most likely due to their ability to attract players due to the salary cap breach (section 6.5.2). Whilst Ben Earl did not actually play a game in this tournament, he was still absent from the Premiership for the same length of time. On

the opposite end of the scale, current England captain, Owen Farrell, frequently misses Premiership games due to his firm position in the England squad which has led to him accumulating seventy nine caps for his Country (up until the 2020 Six Nations tournament). With other players, having similar amounts of caps for their country such as Courtney Lawes (eighty one), Joe Marler (sixty eight) and Ben Youngs (ninety five) to name a few, it is clear that English players can miss a huge part of the Premiership due to international duties. Further research into individual games would be required to study the exact impact this has on results, bonus points and ultimately end of year standings. However, with Saracens missing seven of their elite English players and Wasps only missing two, this thesis is suggesting being absent from the team will affect the end of year standings. It is argued that the Premiership would be less competitive if these players were involved in all Premiership games and that those with the greatest number of 'elite' players would dominate the league.

The thirty four players listed in table 20 are only the English players absent from the Premiership during the 2020 Six Nations Tournament. It is however important to note that teams may have elite players who play for other countries in this tournament. For example, London Irish, whose two marquee players play for Ireland and would therefore also be missing from the Premiership as Ireland are entered into this competition. What also must be considered, is that not all 'top' players will go on and play for England. The Premiership attracts players from all over the world, and whilst some will go off and play for different teams in the Six Nations tournament, others may be from international teams who are not part of this competition such as Australia and South Africa and will therefore not miss any Premiership games resulting in these teams having a higher calibre of players causing an unfair advantage for these specific match days (Rottenberg, 1956).

6.7 COVID-19

For the final topic within this results and discussion section, it is important to consider the impact of the COVID-19 on the sport of rugby union and how the pandemic shifted the dynamics of competition within rugby union. During the quantitative analysis, very little work had been undertaken surrounding COVID-19 because it was not the focus of

the thesis. However, having completed participant interviews, it is clear that the pandemic presents many changes for rugby union moving forward.

Whilst participant one did not mention the topic of COVID-19 (most likely due to their role in the industry of rugby union), participant two highlighted the pandemic within the opening sentence of discussion. Participant two suggested that “we can talk [through] the situation that we find ourselves in now because COVID changed various things” and further went on to explain that “when COVID hit [...] sport was in a predicament of all of its income, just stopping overnight and there were certain measures that were taken in order to make sure that the clubs survive”. This immediate reaction to discuss the effect of COVID-19 is a topic that this study has not yet considered in detail. Participant three suggests that “competitive balance is normally based around the money to be honest the budgets and spending” highlighted again within the opening dialogue of the interview. This has therefore identified a need for further analysis into the impact of COVID-19. It is clear that COVID-19 has caused changes in the financial structure of rugby union as participant two discusses pre and post COVID-19 cuts therefore, this is a key topic area in the sport a year on from rugby returning to normal (World Rugby, 2022). In its most simplistic format, participant two states “COVID has kind of thrown a spanner in the works”. For this reason, whilst finances cannot be considered in detail at this point of the thesis, a section is presented regarding the impact that COVID-19 has had on the end of league standings after this chapter.

As identified in section 4.3, the COVID-19 pandemic caused major disruption to the rugby union leagues for both the 2019-2020 season and the 2020-2021 season; the last two seasons analysed in this thesis. It is therefore important to take a closer look at the changes it made in these seasons and the impact it had on the overall results. Whilst the off-pitch circumstances for forcing changes to the game, it is insightful to find out if this affected on-pitch performance.

6.7.1 2019-2020

6.7.1.1 The Premiership

As previously mentioned, the Premiership was the only league this season to complete their remaining games after the league was suspended on the 16th March 2020. Whilst initial assumptions suspended the league for a five week period, the pandemic caused

further delays than expected and instead, the league eventually restarted on the 14th August 2020 with all games being played behind closed doors.

As usual, twelve teams competed in this league, with London Irish being promoted from the Championship to replace relegated Newcastle Falcons who had previously spent 6 seasons in the top-flight division. The league concluded on the 24th October 2020 when Exeter Chiefs played Wasps in the final following semi-final rounds with Bristol Bears and Bath. It was Exeter who came out on top to win the Premiership title for the 2019-2020 season.

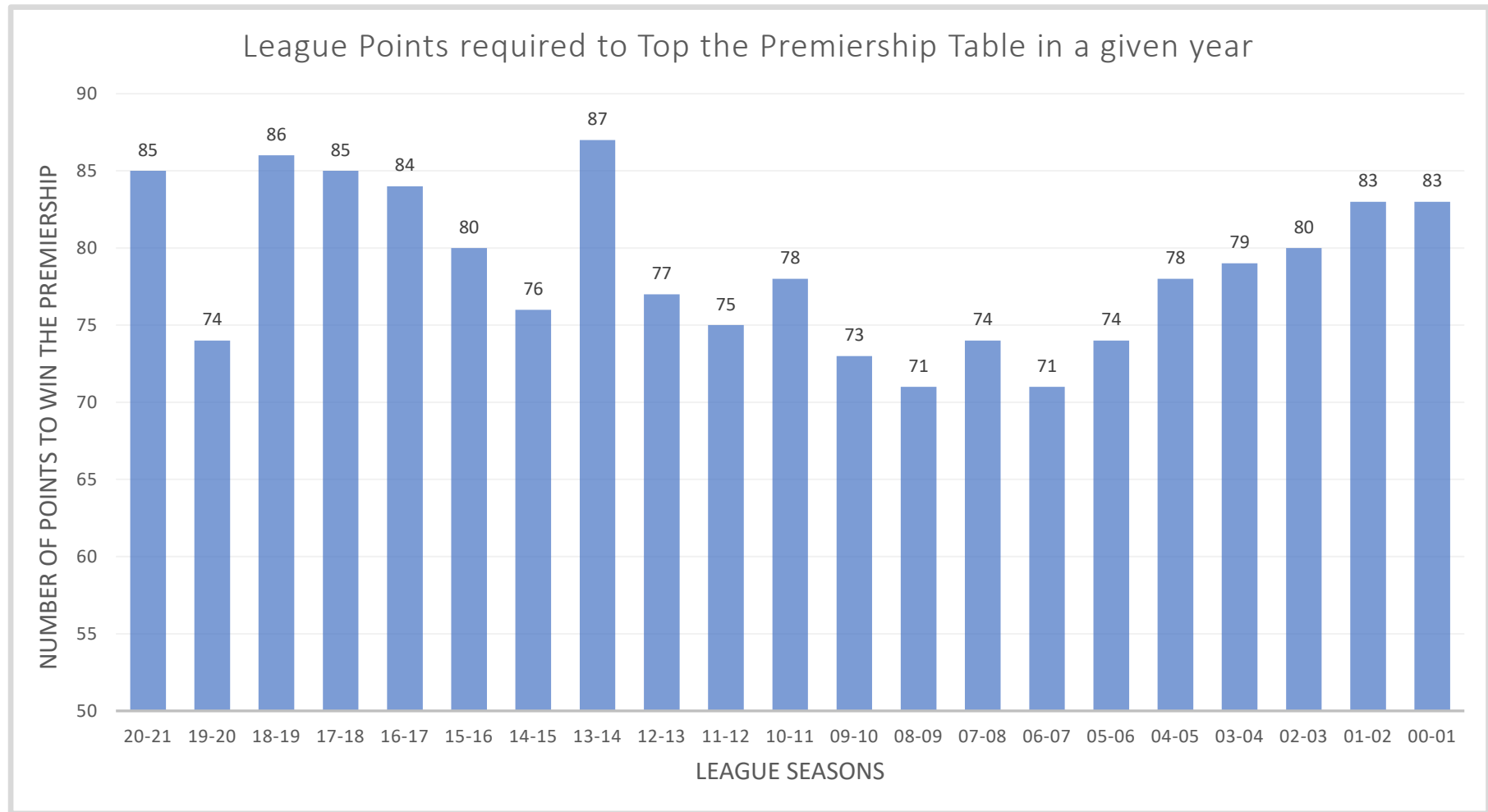
Table 21: 2019-2020 Final League Standings of the Premiership Rugby Union Table.

2019-2020 Premiership Rugby Table													
	Club	Played	Won	Drawn	Lost	Points For	Points Against	Points Difference	Tries for	Tries against	Try bonus	Losing bonus	Points
1	Exeter Chiefs	22	15	0	7	630	443	+187	83	56	9	5	74
2	Wasps	22	14	0	8	662	497	+165	81	58	12	3	71
3	Bristol Bears	22	14	1	7	561	457	+104	70	53	8	3	69
4	Bath	22	14	1	7	520	457	+63	59	56	7	2	67
5	Sale Sharks	22	13	0	9	546	375	+171	69	42	7	5	64
6	Harlequins	22	10	1	11	517	560	-43	63	63	6	3	51
7	Gloucester	22	8	0	14	515	513	+2	72	55	9	5	46
8	Northampton Saints	22	8	0	14	438	547	-109	52	69	5	5	42
9	Worcester Warriors	22	8	0	14	398	578	-180	46	78	4	6	42
10	London Irish	22	6	1	15	386	633	-247	50	88	6	2	34
11	Leicester Tigers	22	6	1	15	374	609	-235	35	79	1	2	29
12	Saracens	22	13	1	8	583	461	+122	72	55	9	4	-38 [*]

The 2019-2020 Premiership rugby table is shown above in table 21. The table shows that Exeter Chiefs, Wasps, Bristol Bears and Bath all made the playoffs for this season by finishing in first, second, third and fourth respectively. For fourth place finishers Bath, this was their first top four finish since the 2014-2015 season, five years previous. However more notably, for third place finishers Bristol, this year saw their highest ever league standing. Having spent seven of the past ten years in the Championship, Bristol gained sixty nine points winning fourteen of their twenty two games played. During the previous season, Bristol Bears finished ninth in the table, and in 2016-2017 (Bristol's only other year in the Premiership from the past ten) having been promoted from the Championship a year previous, Bristol finished twelfth and were subsequently automatically relegated. For a team that held little standing in the Premiership prior to the 2019-2020 season, Bristol's ability to finish third identifies the strength of the team even during the COVID19 pandemic when other teams saw a decrease in performance. Whilst a lot of these games would have been played before March 16th, the extended break and delay in returning to rugby may have been beneficial to Bristol during this season.

The 2019-2020 also saw Exeter Chiefs finish at the top of the table (before playoffs) by achieving wins in fifteen of their twenty two games. Exeter finished on a total of seventy four league points having lost their other seven matches. The total of seventy four league points gained was the lowest winning value in ten years as shown in figure 12. Figure 12 does not present seasons prior to the 2000-2001 season due to point allocations for a win being different and it would distort the outcomes. It does however identify that the 2019-2020 season has seen a much lower winning points total to its surrounding seasons with the past five seasons scoring eighty four or higher.

Figure 12: League Points required to Top the Premiership Table in a given year



It is unusual that this season saw such a low number of wins for Exeter at top of the table but also such high number of losses in comparison to recent years. This therefore identifies that the 2019-2020 could have been impacted by the COVID-19 pandemic for top of the table winners. For the 2019-2020 season, Exeter won fifteen of their twenty two league games, which is two games lower than the most common score of seventeen wins in a season to top the league table. In fact, a team has not topped the Premiership table with only fifteen wins since the 2009-2010 season when Leicester Tigers collected seventy three league points.

The break towards the end of the season due to the pandemic could have disrupted on-pitch performance. Over the COVID-19 period, especially in the early stages, players were unable to train and use specialist equipment due to a National Lockdown. During this time, fitness levels could have decreased, eating habits could have changed, and players may have caught the respiratory illness; all impacting on the playing performance of a person when they were to return. In addition, Coronavirus did not disappear once the games began to take place. Teams could have been missing key players if they were to test positive and been unable to play for a given weekend.

6.7.1.2 Championship and National League One

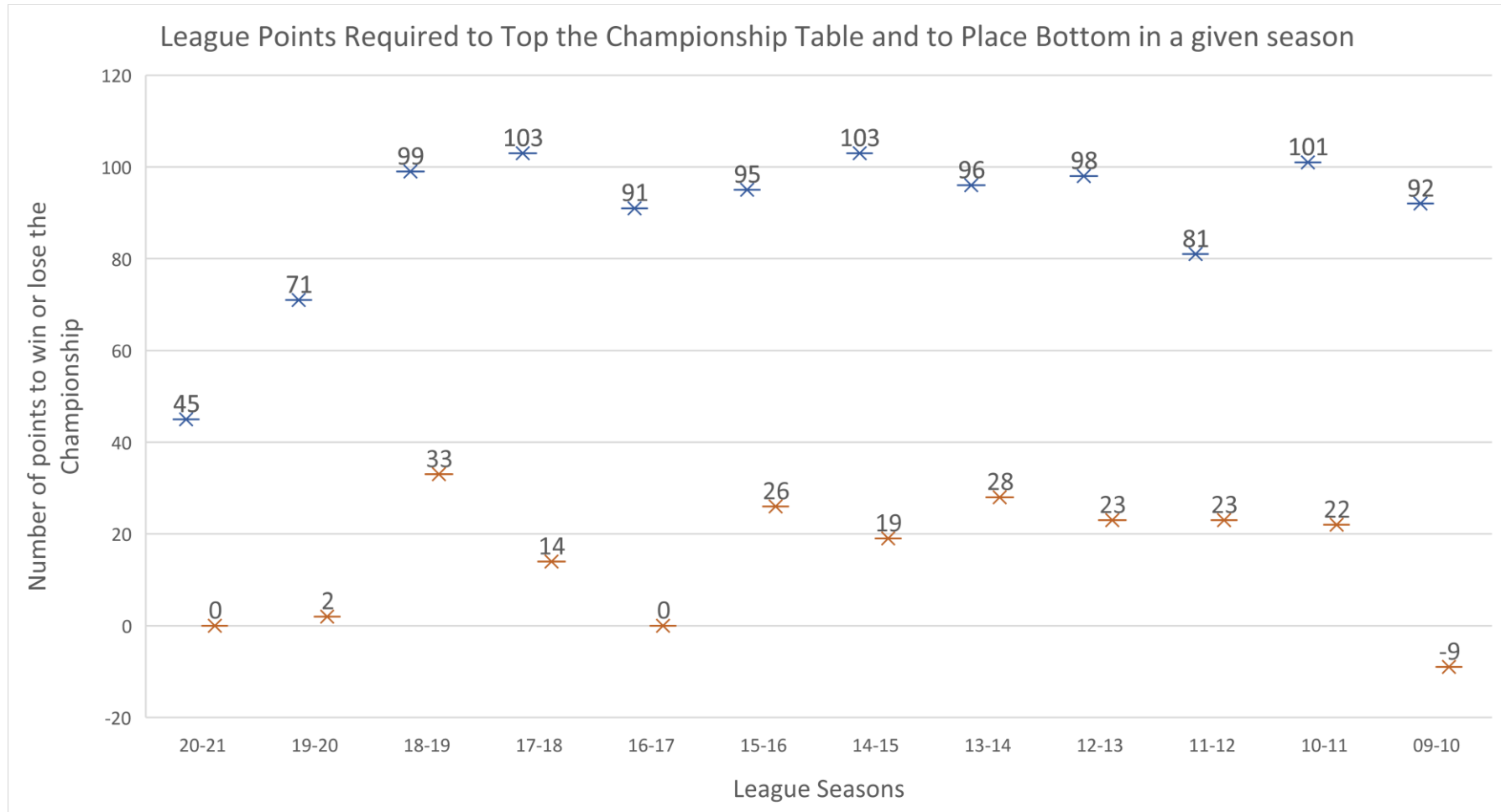
For the Championship and National League One, the 2019-2020 season ended very differently to that of the Premiership. For both of these leagues, and in fact all of those below them, the seasons ended in March 2020 and did not get completed. Instead, a best playing record formula was applied in order to determine a team's final league position. This formula calculated the average number of points, already scored in all home games for a given team. The same process was repeated to calculate average points for an away game and combined these were added onto the existing points a team had already collected before the season was cancelled early.

The best playing record formula meant that Newcastle Falcons had their promotion to the Premiership confirmed as when the season ended, Newcastle had a 100 percent winning record and therefore this same record was applied to the remaining games. Whilst it is unlikely based on previous years (as seen in section 6.1.2) that a team would gain a 100 percent winning record across the whole season, there is no doubt that up until March 2020,

Newcastle Falcons were the most dominant team within the Championship and therefore deserved the top Championship league spot to gain automatic promotion. In similar circumstances, bottom of the league table Yorkshire had not won a single game in the 2019-2020 season and therefore were not awarded any further points meaning they would be relegated into the National League One. Yorkshire did however finish the season on a points total of two having collected two Try Bonus Points in their games against Coventry and London Scottish. This reflects that best playing record was inclusive of a team's bonus points scored prior to the cancellation of the season.

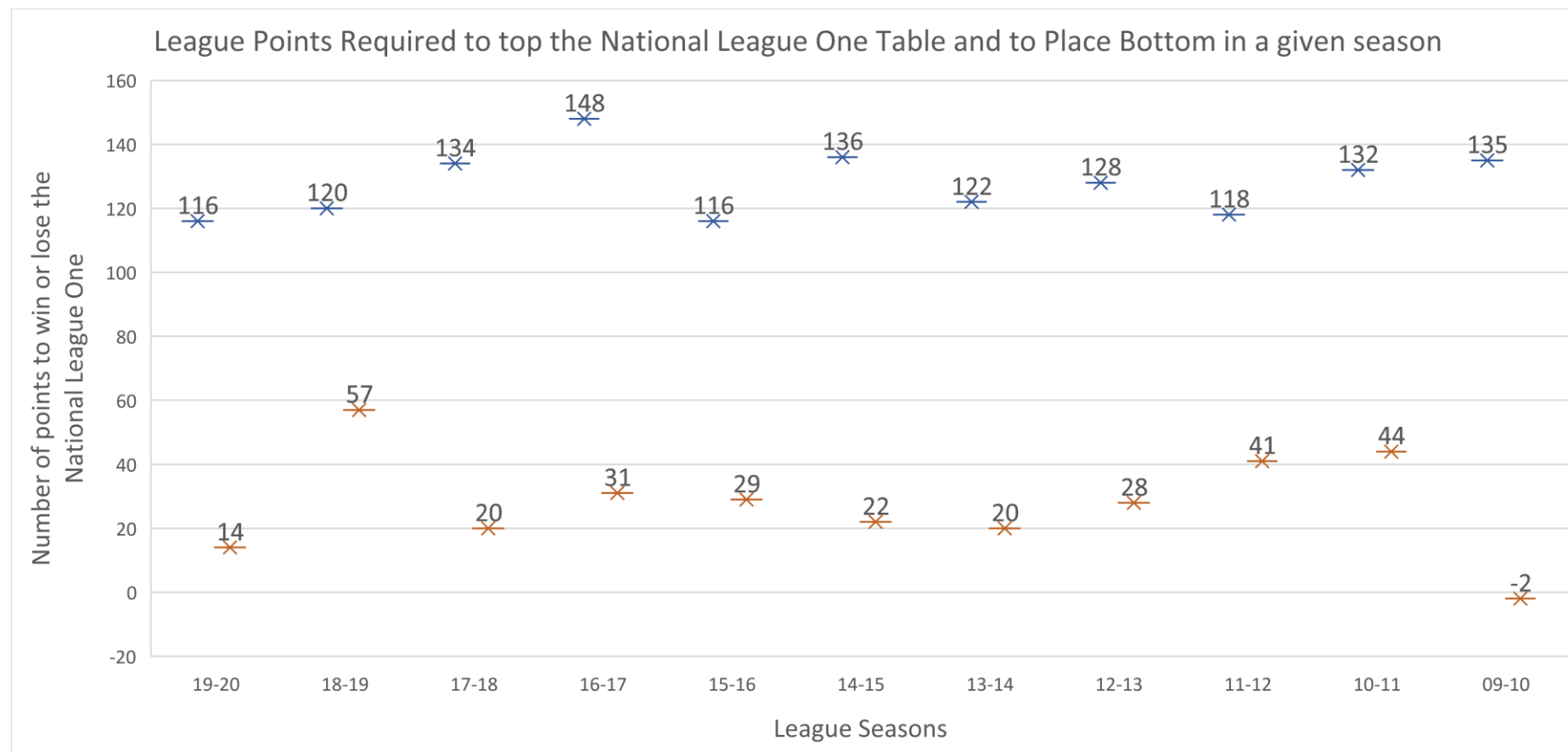
To further the discussion surrounding points collected in the 2019-2020 season, it is interesting to note that despite topping the table with no loss on record, Newcastle Falcons were only awarded seventy one league points. When comparing this to other league seasons, this is considerably lower than the usual points scored by the top of the table team. Figure 13 identifies the top team's points as well as the bottom team's points for each year there have been twelve teams in the Championship (since the 2009-2010 season). As identified by the graph, with the exception of the 2020-2021 season, due to teams playing each other once rather than twice, a score of seventy one points to win the Championship is extremely low when compared to the ninety nine in the previous season and the one hundred and three before that in 2017-2018. Once again, there is a similar occurrence at the bottom of the league. Rotherham lost all of their Championship games before the playing formula was applied. However, the chance of a bottom team in the league receiving such a low points total is very small. Especially when considering the teams who have scored zero in the 2020-2021 season and the 2016-2017 seasons either did not participate in the league or had gone into liquidation; as per the case of London Welsh in 2016-2017. The minus nine value in the 2009-2010 can also be disregarded as this season saw Birmingham and Solihull field ineligible players and therefore received fines for doing so and points were deducted.

Figure 13: League Points Required to Top the Championship Table and to Place Bottom in a given season



By just looking at the top and bottom placings within the Championship for the 2019-2020 season, it is clear that this season has seen differences in comparison to others. It is no coincident that this is likely to be due to the best playing record formula and the inaccuracies this formula created. Whilst it is hard to argue the final results of this league, points throughout were considerably lower than a usual year in the Championship.

Figure 14: League Points Required to top the National League One Table and to Place Bottom in a given season



Similar findings can be seen in the National League One, more so at the bottom of the table than at the top of the table as seen in figure 14. On this occasion, the results of the season before it was abandoned were unclear and therefore it is harder to check the accuracies of the best playing record formula that has been applied. It does however draw similar parallels to the Championship with top of the table Richmond accumulating a joint lowest points value to top the league table (previously seen in the 2015-2016 season). At the other end of the table, Hull Ionians only accumulated fourteen points which is an extremely large difference to that of the previous season where Loughborough students were bottom of the league table with fifty seven points. It is second lowest only to Manchester in 2009-2010 who were deducted points for fielding ineligible players.

The inaccuracies lead this thesis to conclude there must have been a better way to calculate 'unfinished' leagues. Rugby union, as stated multiple times throughout this thesis, is not a game that has solely straight forward wins and losses. The elements of Try Bonus Points, Losing Bonus Points, lack of draws, all contribute to making the paradigm of league calculations difficult, yet it does appear that the best playing record formula used, does not encompass all of these things properly. Should the league be halted for any reason again in the future, a new measure would need to be considered to provide a more accurate reflection in the overall league standings. This is especially the case if this formula were to be applied to the Premiership where each movement in place comes with a larger consequence of European playoff places. It is argued that there could have been detrimental consequences if the Premiership were to implement the best playing record formula and the fact that the Premiership were able to continue their season at a later date was a good thing.

6.7.2 2020-2021

The 2020-2021 season saw changes due to the legacy of the coronavirus pandemic. The Premiership did not re-start until October 2020 meaning that the start of the following season was delayed, and the season would take place over a reduced timeframe of thirty two weeks. With lasting effects of COVID-19, further rules were implemented into this season should a game have been cancelled:

- 2 points awarded to the team responsible for cancellation.

- 4 points will be awarded to the team who were not responsible.
- The match result will be deemed to be 0–0

Further changes to regulations meant that the season included a moratorium on relegation in order to increase the number of teams in the Premiership for the following year. This may have taken the pressure off teams throughout the season, given the COVID-19 disruptions. Teams knew that even if they finish at the bottom of the table, they would be able to compete in the highest division the following season. For the Premiership, the only notable changes were due to arguably one of the most dominant teams in recent years being absent from the league, potentially allowing others to exploit an advantageous opportunity. The Premiership season for 2020-2021 saw fourth place Harlequins win the title. As mentioned previously in section 6.4.3.1, fourth place finishes are unusual but not unheard of. Harlequins won their second title after beating Exeter Chiefs forty game points to thirty eight in the final at Twickenham on the 26th June.

As previously detailed, the National League One did not resume for this season and therefore there is no data to analyse. However, for this season specifically, it is important to look at the Championship in closer detail. For the 2020-2021 season the Championship looked very different as each team played each other only once, rather than twice in a home and away format; with some teams (Saracens and Hartpury) only playing nine games instead of ten. This was due to a cancelled fixture as Hartpury University had a high number of staff and players testing positive for COVID-19 meaning they were required to forfeit the fixture. It did not however affect the final league table by not playing the match and so subsequently neither team collected any points. Table 22 identifies that should either team have received four points for a win and bonus points, at best both teams would have equalled the points scored by the team finishing above them. Saracens would therefore have still placed in the top two for a playoff match and Hartpury would have remained in ninth position, even if collecting all five points and tying with Bedford Blues.

Table 22: 2020-2021 Final League Standings of the Premiership Rugby Union Table

2020-2021 Championship Rugby Table													
	Club	Played	Won	Drawn	Lost	Points (+)	Points (-)	Points Diff	Tries for	Tries against	Try bonus point	Losing bonus	Points
1	<u>Ealing Trailfinders (RU)</u>	10	9	0	1	505	161	344	/	/	9	0	45
2	Saracens (CH)	9	8	0	1	444	101	343	/	/	8	0	40
3	<u>Doncaster Knights</u>	10	8	0	2	236	225	11	/	/	4	0	36
4	<u>Cornish Pirates</u>	10	6	0	4	268	210	58	/	/	5	3	32
5	<u>Coventry</u>	10	6	0	4	252	282	-30	/	/	5	1	30
6	<u>Jersey Reds</u>	10	5	0	5	256	284	-28	/	/	4	0	24
7	<u>Amphill</u>	10	4	0	6	217	325	-108	/	/	4	2	22
8	<u>Bedford Blues</u>	10	3	0	7	213	268	-55	/	/	2	3	17
9	<u>Hartpury</u>	9	2	0	7	228	360	-132	/	/	3	1	12
10	<u>Nottingham</u>	10	2	0	8	169	344	-175	/	/	2	2	12
11	<u>Richmond</u>	10	1	0	9	138	366	-228	/	/	0	0	4
12	London Scottish	0	0	0	0	0	0	0	/	/	0	0	0

A notable point to consider is that Saracens finished the Championship rugby table in second position, missing out on the top spot to Ealing Trailfinders. Whist Saracens did beat Ealing in

the playoff final to gain promotion back into the Premiership, unless Saracens had managed to gain five points against Hartpury, Ealing would still have finished ahead of the dominant ex-Premiership club after the usual league. When the two teams played each other during this season, Saracens came out on top winning 48-20; Ealing's only loss of the shortened season. Saracens however lost to Cornish Pirates by twenty five points to seventeen whereas Ealing beat the Pirates thirty eight points to ten. It would be unfair to say that Saracens dominated the league and had been promoted the same season because they are better than all teams in the Championship. However, it is unlikely that Ealing will get a chance to prove their abilities in the Premiership, even if they do continue winning in the Championship due to the minimum standards criteria enforced to gain promotion to the Premiership. Ealing Trailfinders Sports ground is able to hold approximately 5,000 spectators with 2,115 seats but these figures are not close to the 10,000 required by the RFU for promotion. As the Premiership identifies intentions to expand its league to fourteen teams, the RFU must recognise how achievable this vision is for traditionally lower league clubs. Since the 2016-2017 season, Ealing Trailfinders have finished in the top three places each year since. If any team in the Championship looks to be proving themselves in this league, it is Ealing, and if they are unable to meet promotion standards, it leaves doubts as to whether any team in this division could.

Finally, linking to previous discussion, the fact that Saracens have been promoted immediately back to the Premiership after only half a completed season begs the question as to if the punishment set for them was enough. Saracens have proven that they are a club who can win a Championship title. However, this could be a lasting effect of having a strong Premiership side competing in a lower league. Additionally, Saracens maintained many of their Premiership rewards such as broadcasting and sponsorship payments that other teams in this league would not have. This does not make them comparable to the teams they have played during this season. For a team to be sanctioned and face punishments, it would be expected change would occur, however as of the 2021-2022 season, Saracens will return to Premiership action with a very similar side to the one they had before and a very similar amount of financial backing.

6.7.3 Finances and Coronavirus in Rugby Union

As identified within the interviews (section 6.7) taken place in this study, financial considerations are a major concern for clubs and COVID-19 has hugely impacted the financial state of the game. Rees (2020) identifies that the RFU, the world's richest union, is having to make cutbacks including making more than 20% of its staff redundant after the COVID-19 pandemic. This will have an impact on all levels of the game in England, including the national squad all the way down to some of the lowest leagues.

English rugby unions governing body has suffered with fans not being allowed at Twickenham for usual playoff and elite fixtures, and lost income from broadcast deals. To counter this, England's men's squad accepted a 25% pay cut in September 2020.

It is not sure what the reason behind the decision was, or if it was impacted by players from rival clubs speaking out, but Premiership Rugby chose to distribute the Saracens fine money (see section 6.5.1) between the Premiership teams (and Newcastle Falcons who were previously relegated). It was most likely in some sort of compensation as teams may have missed out on opportunities due to Saracens dominance. The salary cap fine was distributed among the other Premiership teams; Exeter however donated their share of Saracens fines to charity.

Finances are crucial to any business, whether that be a sporting business or not (page 1). However, there is no doubt that COVID-19 has had an impact on the financial circumstances of rugby union teams. During the qualitative data analysis, both the Premiership and Championship representatives highlighted changes in the game because of the lack of funding agreements since the pandemic. In the Premiership, the salary cap is reducing to £5 million due to all teams missing significant amounts of money during the time sport could not be played and spectators were not allowed into stadiums. Similarly, some Championship sides have removed their professional status and instead hold a semi-professional position in order to survive and stay afloat. Whilst this study cannot consider further implications of this, future research must look at how COVID-19 has impacted the sport.

6.8 Results and Discussion Summary

This analysis of English rugby union's twenty five years of professionalisation has identified fundamental outputs regarding the competitive balance of the top three leagues. This thesis has so far measured competitive balance by:

- Utilising the measure of HICB,
- Investigating bonus points,
- Identifying patterns and trends of dominance descriptive statistics,
- Calculating Win Percentages,
- Investigating the Salary Cap,
- Considered how European and international competitions contribute, and;
- Identifying the impact of COVID-19

HICB findings identified a general increase in competitive balance across all three leagues since 1995; an encouraging development for rugby conforming to economic theory that leagues are 'better' with increased competition (Downward & Dawson, 2000). It is noted from the HICB analysis, the Premiership is considered the most competitive league of the three and the Championship was the least. It was here that the huge disparity between the Premiership and Championship was first highlighted. In addition, this chapter concludes an idealised HICB value for rugby union rather than the value of perfect competition (100) which has previously been identified as unrealistic (section 3.2). Section 6.2 identifies an achievable value of 105.92 based on the 2018-2019 National League One season. It is this figure that all teams across all leagues should be aspiring to achieve.

The output of the HICB findings however, have been questioned as further analysis has been undertaken. The HICB findings noted the Premiership as the most competitively balanced league. However, when analysing league distributions the National League One is highlighted as most competitive, as the number of teams to have won the league is higher (page 148). In addition, when exploring European competition (page 174) it is highlighted that only a small number of Premiership teams finish in the top eight positions of the league, again questioning the competitiveness of the top flight division. This ultimately undermines the application of HICB when considering the sport of rugby union and therefore identifies the National League One as the most competitively balance league from the three analysed.

Whilst it appears that bonus points have aided the long-term competitiveness of the leagues alongside other factors identified in the HICB analysis, the contribution of bonus points, especially in the short to medium term is questioned. For a given season, particularly in the higher leagues, bonus points have no meaningful output on a league season and therefore lack contribution to achieve more competitiveness. It is crucial that bonus points contribute to competition otherwise they could well be disregarded from the game completely. At this stage in the thesis, it is recommended that the RFU reconsider the need for bonus points in the game's future. However, when analysing this information with the qualitative data collection, interesting findings arise providing an invaluable insight to this thesis. It has raised issues not found within the quantitative analysis and hugely contrasts the initial findings disregarding the value of bonus points within English rugby union. A point to consider here, is an observation made by participant one who suggests the bonus point system in English rugby union (see section 4.2.3) is different to that seen in France going on to suggest they "prefer the French system". From this, it is suggested that rather than removing bonus points from the league, an alternative approach considering the discussions from within these interviews could be to overhaul the bonus point system. The bonus point system in English rugby union has not seen any changes since its implementation, nor has anyone considered how well it works. Participant one states the "French system to me is better because it rewards pure dominance". They support this statement by suggesting that within the English system there is no difference in 'good' teams who win games by achieving four points or five with an added bonus point, if the majority of teams in the league are capable of achieving this at certain points. "If we both go out and I score five tries and you score four tries, we both start off with the bonus point" (participant one) identifying that the current system does not reward the 'better' team in the game. The conclusion therefore would be for the RFU to run a review of the bonus point system, identify different and alternative approaches utilised by other rugby union teams around the world and overhaul the current English system.

Furthermore, the qualitative research referred to rugby union's attempt to increase competition through the use of bonus points as a means of creating a spectacle. Identified on page 25, Fort and Maxcy (2003) suggest that both the UOH and ACB research are needed for a complete understanding of competitive balance in sport leagues. However, this chapter identifies that it goes significantly further than just an understanding of both concepts. In fact,

the enquiry of ACB research has no application to the sport without also including the impact on fans within the game. The interviews taken place in this study all centred, at some points, upon how important it is to create an exciting and engaging event for the fans and supporters of rugby union. Therefore, when considering competitive balance, there must be an application of UOH to ensure the concept of competitive balance is valid.

Another proposed governance change presented in the analysis of quantitative data is the current format of playoffs. Whilst it is believed the playoffs are a contributing factor of the HICB findings, this thesis suggests there is no benefit in having more than two teams in a final playoff match (page 160). Whilst a two-team playoff will have minimal effect on the National League One, this thesis has proven the benefit of playoffs and with National League One currently not implementing a playoff tournament, it will provide an additionality to increase competition which in turn may alter HICB findings in the future. For the Premiership and Championship, a two-team playoff final is crucial to increase competitive balance whilst reducing the number of games played and also maintaining player welfare. For the 2020-2021 season, the Championship adopted this format as part of their change in league structure due to COVID-19 (see section 6.7). It is a recommendation of this PhD that a two-team playoff format is continued within this league.

The results and discussion chapter also highlights that it is important for the role of the salary cap to be investigated in future research. In previous years, the salary cap has been disrespected by Premiership teams therefore suggesting enforcement of the salary cap has not been successful. In addition, from qualitative analysis, participant two highlights the future changes and recent decrease in value for the salary cap in the future. However, the long-term effect of these changes are unknown. It is also noted that the figure of the salary cap needs to be consistent across all rugby union leagues. Analysis undertaken shows there is currently huge inequalities across European rugby due to the application of the salary cap, it is therefore proposed that World Rugby would need to be the driving force for change in this arena.

Finally, the qualitative findings identified the need to look at the impact of COVID-19 in further detail. In two of the three interviews, without prompting, discussion arose in regard to the implications that COVID-19 had on the game of rugby union. Whilst finances related to the

COVID-19 pandemic are not a consideration of this thesis, these interviews have highlighted the need to explore the 2019-2020 and 2020-2021 season further in order to identify any COVID-19 performance outputs. Discrepancies are presented in section 6.7 identifying coincidences when considering league data. However, as COVID-19 is not the main focus of this thesis, this analysis only gathered a small amount of data and information.

To conclude there are areas of symmetry but also areas of imbalance between the qualitative and quantitative data analysis. The most striking element of difference is the requirement of bonus points. The quantitative data collection identified no definitive need for bonus points to be embedded into the game of rugby union. However, for the industry experts, these were a crucial part of competition, an intrinsic motivator driving performance and an interest to the fans. Similar findings, between the two sets of data, have been identified regarding the inclusion of playoffs within the league structures. Both quantitative and qualitative findings found playoffs to be an important contributor to competition. Although slight differences were apparent regarding their application to individual leagues, playoffs are a competitive balance factor that work for English rugby union. Finally, an area that was disregarded by the quantitative data analysis was the impact of COVID-19. Whilst this will not have large implications on competitive balance in future years the qualitative data analysis highlights the huge impact this has on the game for the foreseeable future.

Chapter Seven

Summary, Conclusion and Contribution

7.1 Thesis Summary

The overall aim of this thesis was to measure competitive balance for men's rugby union by considering the Premiership, the Championship and the National League One. To achieve this aim, four objectives were devised. Firstly, a thorough systematic review was produced which was further supported by a narrative literature review to ensure all publications within the field of competitive balance had contributed to the study. From this, appropriate measures were identified for measuring competitive balance in rugby union and therefore aligning with objective two. Finally, quantitative and qualitative data collection methods were utilised and further analysed to report findings appropriate to inform future policy decisions regarding the sport of rugby union; achieving objectives three and four.

The rationale for this study documented the rapid growth in sport economic literature (Gratton and Taylor, 2000); specifically examining the theory of competitive balance. Yet, the lack of competitive balance literature in the sport of rugby union was apparent. This therefore identified a gap in the existing literature and progressed this thesis to study the element of competitive balance specifically in English men's rugby union. More precisely, this thesis has been able to concentrate on the first twenty-five years of rugby union since the inception of the professional era for the sport.

The thesis has explored the growing competitive balance literature (Rottenberg, 1956; Butler, 1995; Kesenne, 2007; Andreff, 2011; Hogan, Massey & Massey, 2017; Carreras & Garcia, 2018; to name a few) by undertaking an extensive two stage literature review covering the concepts of the economics in sport, competitive balance and rugby union. Both the systematic review in chapter two and the narrative literature review in chapter three allowed this thesis to locate the gaps in the literature and assess the course of the research study from this point. The main conclusion of the literature reviews were that there is no tangible formula by which to measure competitive balance in English rugby union; or in any sport for that matter. For this reason, the thesis provides a rationale for why specific measures were used rather than others in section 2.3.4; these are identified as the most appropriate measures to calculate competitive balance in English rugby union.

Following the literature review chapters (two & three), and the identification of measures that would be used throughout the thesis (chapter five), a results and discussion chapter (six)

was produced. Chapter six used twenty five years of league data for the three individual leagues studied using the measures identified in chapter two; HICB, Win Percentages, and league title distributions, among others. This was triangulated by analysing the transcripts with interviewees currently involved in the rugby union field, providing a practical application of the quantitative findings.

7.2 Main findings

7.2.1 Findings Regarding Policy Recommendations

Throughout chapter six of this thesis, multiple findings have been identified, some of which directly underpin objective four and informs future policy decisions for those organising the structure of rugby union. These policy recommendations are therefore identified and justified below.

Firstly, bonus points have been a consistent topic area of this thesis, due to their unique inclusion in the game of rugby union. Based solely on the findings of the quantitative analysis, bonus points lacked contribution to increase competitiveness in rugby union. By removing bonus points from the final league standings, analysis identifies bonus points do not have a meaningful output on a league season. In addition, this analysis identified if bonus points were removed from the league completely, it would not impactfully change the outcome of most team's positions in the leagues; particularly in the higher leagues. Section 6.3 identifies that 93.3% of Premiership league places are unaffected by the inclusion of bonus points in the league, a percentage that increases to 99.4% in the Championship. However, it was identified in the qualitative data analysis that bonus points are an important consideration for those playing and involved in the game, as they are used as a psychological motivator in the sport. With this in mind, the game has not seen a change in the bonus point system since its inception. Therefore, a policy recommendation of this thesis is that the bonus point system in English rugby union should consider an overhaul in the way it is implemented to increase competitive balance within individual league and to ensure the bonus point system is fit for purpose. During the interviews, participant one identified that inspiration should be taken from the French Top 14 league.

Similar to the findings above, it is apparent the salary cap is not working effectively in its current format. Page 36 identifies the salary cap as a prevention method to stop some teams spending a larger amount of money than others. However, this thesis has proven that the cap has been unsuccessful in achieving this in English rugby union. Whilst the figure of the salary cap is now beginning to see change as it decreases its limits, the figure has no relevance if teams continue to exploit the rules surrounding the cap itself. Previous regulation changes of the salary cap (page 73) has seen little effect on the financial control of the game and therefore this decrease in value is not adequate. A policy recommendation here, is for the RFU to investigate all teams in the manner in which they have Saracens (section 6.5.2) in order to eradicate loop-holes. In addition, the salary cap in English rugby union must be reviewed more regularly to ensure no future disregard of the cap by individual clubs. This review must be the responsibility of the salary cap director. By regularly reviewing the salary cap the RFU can better govern the game and sanction teams who deviate from the cap.

It is identified in the literature that playoffs can support increases in competitive balance (page 36). This is supported in both the quantitative and qualitative findings of this study, yet they are not implemented in leagues lower than the Premiership (other than during the 2020-2021 season in the Championship due to COVID-19). Section 6.4.3.1 identifies that the inclusion of a third and fourth team in the playoffs provides very little evidence for increased competition. For this reason, and to promote player welfare (aligning with the justifications for a league restructure, see section 4.3.3.2) the playoff tournament, to determine league winners, should only involve two teams. In addition, a final two team tournament will discourage excess games for no beneficial reason aligning with the concerns of participant two (Appendix 2). A two team playoff allows teams and leagues to promote competition but also to also create a spectacle at the end of a season that fans can engage with. This playoff format requires implementation across all leagues in rugby union to reduce ultimate dominance within a league.

Another practical finding of this thesis is the categorisation of teams, particularly in the top two divisions in the English rugby union league structure. Identified consistently throughout this thesis, is the awareness of Yo-Yo clubs who are too dominant to compete in the Championship yet lack the on-field performance to compete in the Premiership. In addition, this thesis provides insight into a category of ten teams who consistently compete in

European competition. By categorising specific teams, further research can be undertaken on the impact that these categories have on competitive balance. What is already apparent from this thesis is that Yo-Yo teams are reducing the competitive balance in the Championship as this category of clubs remove the opportunity of competition for other Championship sides. In addition, the teams who are consistently competing in the European Rugby Champions Cup reduce the competitiveness of the Premiership as they maintain their status in the top league positions.

A final policy recommendation from this thesis is based on the best playing formula implemented into leagues below the Premiership during the COVID-19 pandemic. This formula presented a number of inaccuracies as it failed to consider all aspects of the game such as bonus points and drawn games. It is noted in section 6.7 that the formula would have had more impactful consequences should it have been applied to the Premiership, as the movement between each league position becomes more crucial. It is therefore identified that this formula should be reviewed post-application (the 2020-2021 season) to ensure a more realistic formula can be designed should it be required in the future.

7.2.2 Findings Regarding Theoretical Implications

The main theoretical finding of this study is the identification of no confirmed approach to measuring the competitive balance of rugby union. ACB literature continues to develop new measures of competitive balance, yet none fully apply to individual sports and therefore when analysing a specific sport, an author must justify an appropriate method. This thesis concludes a 'best fit' approach (chapter five) to the examination of competitive balance in rugby union identified by extensively studying competitive balance measures, their previous application to sport and evaluations based on prior publishing's. These measures have then been applied throughout chapter six. What can be concluded, regardless of the measures applied to sport, is that rugby union does not want exact competitive balance. Therefore, future formulas and applications of measures should strive to find an optimum level of competition which must be identified by those using the approach to ensure application to the sport.

To align with the comments above existing competitive balance literature discusses an awareness of an 'optimal' level of competitive balance over a perfect quantity. However,

literature fails to identify what this value is for individual sports and sport leagues. This thesis has identified a HICB value of 105.92 as the optimum value for rugby union. This value has proven to be achievable in National League One and therefore it is reasonable to claim this optimum competitive balance value can be achieved in other leagues.

A further theoretical contribution of the study is that the UOH strand of competitive balance and the ACB strand of competitive balance must work alongside and underpin one another in competitive balance findings to provide meaningful and realistic outcomes. It should no longer be identified in the literature that the two concepts may be used to understand alternative perspectives and outcomes. Instead, in order to effectively and meaningfully apply ACB theory to a sport, it *must* also consider how fans engage. This theoretical finding is underpinned by the qualitative data collection within this thesis. It is only at this point that the data becomes meaningful and applied to those within the game of rugby union.

Finally, an examination of the HICB index has confirmed all three leagues have become more competitive since the professional era. In addition, the HICB calculations identify the Premiership as the most competitive league. However, these findings were contrasted by studying league dominance where it was identified National League One has had nineteen different winners in the past twenty five years compared to the eight in the Premiership. This alongside the lowest HICB value being identified in National League One (see section 6.2.5) suggests that it is the third division of English rugby union that is the most balanced from the three analysed. It is however extremely apparent that the Championship is the least balanced league. Confirmed utilising Tukey's HSD test, the Championship is significantly less balanced than the Premiership and National League One. The league itself does not expect teams who have never previously competed in the Premiership to gain access into the highest division in the structure. This is proven in section 6.7.2 which identifies Ealing Trailfinders as a consistently dominant team in the Championship yet will not be allowed promotion until the minimum standards requirement is met. This assumption is also confirmed by the categorisation of Yo-Yo teams between the Championship and the Premiership, identifying the ex-Premiership teams are often the promoted sides. Not only does this highlight the disparity in the Championship, but also the lack of governance and support in the division. Further analysis is required into what makes the Championship less balanced than the other two leagues and why this may be the case, to ensure survival of the Championship in the

coming years. Some theoretical application is provided by this thesis through the qualitative analysis and provides direction for further investigation.

7.3 Contribution of Knowledge

There are several key contributions' to knowledge provided by this thesis. Firstly, an extensive analysis of competitive balance in the sport of rugby union in England. Previous studies (Williams, 2012; Hogan & Massey, 2018; Hogan, Massey & Massey, 2013) have all covered specific time frames and focused predominantly on the Premiership. However, this thesis explores data since the inception of professionalisation of rugby union to current seasons, creating a twenty five year overview of the competition within the sport. In addition, this thesis has not only covered the Premiership, but also the Championship and the National League One which no study has previously detailed. This extensive study therefore contributes additional years of analysis to the study of rugby union as well as the examination of additional leagues from the English rugby union structure.

A second contribution of knowledge, is the theoretical contribution of a mixed method methodology, providing an alternative approach to the study of competitive balance. To the author's knowledge following extensive literature reviews, this is the only study in the field of competitive balance to use a qualitative approach to study typically statistical outputs. Whilst these outputs have been created by utilising HICB scores, win percentages, and descriptive measures, they are now triangulated by findings from a qualitative study. The qualitative study has proven crucial to this thesis, particularly when examining the impact of bonus points in the game of rugby union. In addition, the qualitative analysis has provided an insight as to how competitive balance is applied to the on-field game by those who work in the industry.

This PhD thesis has also contributed new insight to the field of competitive balance literature creating new and important considerations for future rugby union research. Firstly, the investigation of the international breaks in English rugby union. These international breaks see players missing from their domestic league. Therefore, teams in the English Premiership must continue the league without their selected elite players who go away to play on international duty; most often hugely influential team members. This player absence will have a detrimental effect on competitive balance in which no literature has yet explored. This

thesis goes some way to fill this gap in rugby union detailing the extent to which some players can miss large proportions of the league season. It also identifies that some clubs will lose more players on international duty than others and therefore individual teams are likely to be impacted differently. Whilst further research is required in this area, it is a key contribution to the study of competitive balance in rugby union and must be considered in future analysis.

A second new insight is the exploration of bonus points in this thesis and their impact on competitive balance for rugby union specifically. No literature, to date, has examined the contribution of bonus points and their implication on the competitiveness of the game of rugby union. This thesis identifies the inability of the bonus points system to increase competition or to influence the end of season standings. However, they have been identified as a key component of competition for match day players, fans and stakeholders ultimately confirming their requirement in the game. It is for these reasons, a significant overhaul of the bonus point system should be considered due to the analysis undertaken in this thesis.

Finally, this thesis has provided an optimal value for the competitive balance of rugby union utilising the HICB measure. A HICB value of 105.92 is identified as the optimum value that all leagues should be achieving to ensure good levels of competition and equal opportunity for all teams within the league. This value is both realistic and achievable in the sport of rugby union (proven in the National League One), and therefore should be identified as the future expectation for all leagues.

7.4 Limitations of the Thesis

One of the limitations of the thesis is linked to a theoretical finding of the study. It is important within competitive balance literature that measurements used to analyse competitive balance align to individual sport leagues. However, if this thesis were to be replicated, a competitive balance measure has not been formulated as instead a best fit approach has been utilised. There is a requirement in competitive balance research to re-write a formula specifically suited to rugby union and the sports unique make up of factors to ensure future research is consistent and coherent. To extend an existing formula, further interviews are required and additional analysis into leagues lower than National League One, to be confident that the variable would be consistent across all leagues of English rugby union. Whilst the

interviews provide critical insight to the application of existing competitive balance measures, the qualitative responses are not representative of the population. More variables are required for testing to ensure confidence in providing a competitive balance formula. The limits of this research study does not allow for this development but has provided a fundamental starting point for future research investigating the competitive balance of English rugby union. It is crucial a new formula includes consideration of bonus points, playoffs and overseas fixtures which remove players from the domestic league.

A further limitation of the thesis is reflected in the methodological choices. The inclusion of qualitative data analysis in a typically quantitative study presents the possibility of researcher bias in the study. Qualitative data analysis is not typically aligned to a post-positivist paradigm and therefore it is the authors responsibility to analyse the qualitative findings in a detached, objective manor. The methodology for this study has provided detail as to how this was managed throughout the research thesis. To ensure researcher bias is minimised, the quantitative data findings informed the qualitative discussion for interviews. Areas of key themes were identified before interviews took place. However, if this study were to be replicated, there is a possibility that the qualitative results may have different outputs due to the researcher's involvement during the interview process. It is impossible to guarantee, in the social phenomena that sport is, interpretations have not occurred. However, it is important to identify limitations of this thesis have been reduced, as appropriate procedures were put into place to minimise bias at all points of the thesis.

A final limitation of the thesis is the disregard to consider UOH from the start of this process. The theory of UOH was initially removed during the systematic review process where publications were disregarded if their primary focus held a UOH line of enquiry. Whilst the literature captured within this thesis does still identify the key components of this approach, much of the qualitative analysis made reference to its importance on the game of rugby union. Section 2.3.1 identifies it is not compulsory that both approaches to competitive balance are required. However, this thesis recognises the importance of the UOH approach and its direct application to the game. It is therefore a limitation of this study that further investigation of this approach was not undertaken. To ensure a practical output of ACB analysis, future research must also investigate the UOH approach to competitive balance.

7.5 Recommendations for Future Research

Throughout this thesis, there have been multiple avenues that have been identified as a consideration for future research. A first recommendation for future research was presented in the systematic review when considering a best approach to deciding measures. Measurement of competitive balance is complicated by its multidimensional nature. This study identifies the most appropriate measures for the sport of rugby union, however there is no further evidence for which of these measures should be used in other sports around the globe. Table 5 in the systematic review chapter goes some way to achieving this but considering the vast amount of literature in a number of different sports, this must be a future research output in order to gain consistency across the findings in the field.

A second future research recommendation for the field of rugby union is the impact of COVID-19; more specifically, the reduction of finances in the game due to the pandemic and the consequences of this relative to on-pitch performance. Whilst this study was able to portray some COVID-19 analysis, the impact of the pandemic was a concern which was emphasised on multiple occasions during the qualitative data analysis. This is suggesting that those in the game are currently seeing significant differences to how the rugby environment was before the pandemic. Since this is an event that has not long passed (some would even argue that it is still affecting sports), in depth analysis post pandemic is not currently possible but does give justification for future research in this area.

One of the main advancements to theoretical knowledge made by the thesis is the exploration of European and international fixtures when considering competitive balance in elite rugby union. The quantitative data study highlighted the suggestion for a salary cap to be embedded in the European Rugby Champions Cup to increase competition on an international level for rugby union. Research provided in this thesis suggested that only those teams with high salary cap levels in their respective domestic leagues could feasibly compete with teams on the international stage. For these inequalities, it is recommended that future publications in rugby union research should look at the disparity of the salary cap across the globe and identify whether or not a salary cap is required to increase competition in European tournaments. In addition, future research should explore the impact of these European and international tournaments as a controlling measure of competitive balance in the English rugby union game. Rugby union provides a unique case study of a sport who do not have an

international break to complete overseas tournaments and therefore elite players see time spent away from the domestic competition. No research is yet to consider the impact of this on competitive balance.

Finally, a main finding from the research thesis is the disparity between the Premiership and the Championship. Comparisons made throughout chapter six and conclusions formed in section 7.2, identify the specific need for more research surrounding the Championship in the English rugby union league structure. The Championship is the least balance league analysed in this thesis and therefore requires research into how the league can become more competitive. Whilst the inclusion of a two team playoff has been suggested in section 7.2, fundamental analysis is required to identify how the Championship succeeds as a league in future years. Future research should consider current governance of the second division in English rugby union and the transition between the Championship league and the Premiership.

7.6 Concluding Comments

This thesis provides analysis into an area of competitive balance literature that is currently under-explored within existing literature. Prior to this thesis, there had only been three publications which considered the game of rugby union in England (Williams, 2012; Hogan, Massey & Massey 2013; Hogan & Massey, 2018). Chapter two justified the requirement for further research in this field and progressed by identifying the extensive number of measurements used to calculate competitive balance in previous literature. From this, a 'best fit' approach was identified selecting appropriate measures to calculate competitive balance in English rugby union and ensuring progression of the thesis.

This thesis is the first of its kind to utilise a mixed method approach to calculate competitive balance in any sport. It is this methodological approach which is therefore the biggest contribution to knowledge of the thesis. The triangulation of both quantitative and qualitative research methods has provided this thesis with invaluable insight to the competitiveness of individual leagues and also elite English rugby union as an entity.

The findings of this thesis concludes results that are not only applicable to the sport of rugby union, but the analysis of competitive balance in any sport. A key finding underpinning all competitive balance literature is that no sport should desire to achieve exact competitive balance within their league structure. Whilst Fort and Quirk (2010) promote perfect competition, this study supports the work of Kesenne (2001) who suggests that complete equality is not needed. Perfect competition would see a decline in interest of the sport and therefore achieve the opposite of what competitive balance aims to promote. For rugby union specifically, interesting findings have been concluded surrounding the unique combination of factors the sport implements in attempt to increase competition in the game. The key themes of this thesis have been the inclusion of bonus points, not implemented by any other sport. In addition, the element of the salary cap, usually seen in a North American approach to sport leagues (Vrooman, 1995). Furthermore, the influence of playoffs provide a third considering factor when analysing competitive balance. Whilst these three factors have remained at the forefront of analysis, exploration into the application of promotion and relegation has identified disparity between leagues in the English rugby union league structure. Lastly, the study has considered the impact of European and international competition and its effect on competitive balance in rugby union.

Phillips and Pugh (2010) identify research within a PhD is about finding out something you do not know. At the beginning of this thesis, the competitive balance in the men's English rugby union elite structure was unclear, particularly in leagues other than the Premiership as little previous research surrounded this topic area. By undertaking this research thesis, clarity, answers and calculations are provided exploring the competitive nature of the sport as a whole but more specifically in the top three leagues of the English rugby union system. It is this point, and the inclusion of a mixed methodology that this thesis positions itself into the growing field of sport economics literature.

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Appendices

Appendix 1: Transcript from participant 1

Participant 1 – A domestic journalist who specialises in rugby union

Before starting, all participants were read the following information:

Firstly, I will be recording the interview, only for the purpose of transcribing the conversation. Once you have given your verbal consent that this is OK, I will press the record function in order for us to begin.

However, as per the participant information sheet, I will keep your identity anonymous throughout the PhD and any further research such as papers etc., Where I refer to you as X in this conversation, I will change that to participant 1 etc.

Just checking that that is all OK and you give your consent to continue?

Consent was provided and therefore recording could begin.

PhD Researcher

Ok, so I will start by providing a definition about the PhD. I am studying the concept of Competitive balance. Competitive balance refers to balance between sporting capabilities of teams. It includes a concept known as the uncertainty of outcome, which is the more unpredictable the score lines are, the more attractive the league is, whether that be to players or whether that be fans. And there's more engagement there. Specifically, it is the situation when no one team or no one club within a league within the premiership, within the championship, within the national one, has an unfair advantage; hence a competitive balance.

So, with that in mind, do you think rugby union is competitively balanced?

Participant 1

It's an interesting question because, I took a couple of notes of what your definition of that and it's pretty hard to do a short answer to it. But it's been interesting looking at how the Premiership has evolved and what I.... Actually, the introduction of playoffs by having playoffs in rugby has been quite interesting in comparison to other European sports and in particular soccer. The one I'd look for back was when Leicester Tigers top the table every year and then got to the final just somehow couldn't bring the trophy home.

Saracens and Exeter saw then, I suppose, two different dominant periods more recently. But then you've seen sort of most recently, even Harlequins throwing everything up in the air with glorious unpredictability, so.

What you probably have then is.... you've had times in the Premiership but you have not unpredictability of outcome at the very top end of the table. OK, there's probably been a difference between those couple of very strong teams and I'd point in particular Saracens and Exeter where they were just sweeping all before them. Everyone else, I think part of the attraction of the league is that there probably is an opportunity for most teams to be one other every week, but now you've got the other end this season, who are appalling.

So Yeah, just this season's probably one of the better ones I think for the Premiership.

PhD Researcher

Yeah, I agree, especially like you mentioned at Harlequins there as well finishing fourth in the table, I think. So it's really interesting that you brought up the concept of playoffs because there are systems put into place I suppose for rugby to try and make the Premiership specifically more competitive. And some of which we see in leagues below, some of which we see in other sports, some of them suit more of an American sport, but actually are implemented into rugby and one of them is the playoffs. So, I'll start with that one, since you've brought it up anyway.

Do you think they're good for the game?

Participant 1

Great question. This is where you get into the difference between having a system for your sport, like a tournament system, a structure to find the best team or provide the best product. OK. Because if you want something to find the best team consistently over a year, you will have a simple league table and the team with enough points at the end of the champion. What's the problem with that? You get bad Rovers towards the end of the year. If you have a couple of particularly dominant teams having playoffs creates more energy at different times during the season also, of course you've got the ability for the marketers here is to build a showpiece event, to sell tickets like it's quite attractive in that way to people and it definitely, in rugby, took a while, I think for people to buy into the fact that you could play all season long, and still not win, you know. So, it's that balance, that, competitive balance on the whole in terms of where... you've got a week-to-week competitive balance, you know, on any given Sunday, Tuesday, the American parlance. Can one team beat another? What's the likelihood of that? And then on any given year, what's the chance that someone who can do perhaps remarkably better than one might have thought going into the season. You know that that longer term one as well. And I think the marketers have gotten involved and said that's all very well, but the product is different thing.

You know, and that that's where you have got, probably a healthy tension and I were not out of it yet.

PhD Researcher

Yeah, yeah, I like that analogy of the short and the long. And actually, yeah, it kind of continues all throughout the season regardless. Just some information that you might find interesting, while some teams do win the league or they finished top of the table, and they then go on to win. Some teams do that but actually the most preferable position to finish in the league in the premiership is to finish second. You are most likely to win the title of the

premiership if you finish second in the league. Equally, if you finished third in the league, because obviously the top 4 going to playoffs, if you finished third, you've never ever won a title from third position. Umm, so second is the most favourable, third, you've got no chance of fourth. You've got a bit of outsiders luck potentially.

Participant 1

Yeah, that's interesting. Have you looked at the individual teams involved? The only thing I'm wondering is that if you look at some of the teams that have done very well through, what we will call the regular season. Some of them, like when Exeter were having their run, they didn't have a lot of players in England duty, and I think those international players might welcome back for playoffs. Be more available. But again, that's only top of the mind stuff. You know, you just to look at each team and sort of see, you know, cause you can get wonderful flukes with numbers at the same time.

PhD Researcher

Yeah, but so from 25 years of data, no one has ever when it from the third position, which I thought was a bit of a standout.

Participant 1

That is weird.

PhD Researcher

I'm going to move a little bit onto dominance cause it kind of links into that and I've looked at certain dominant teams. I suppose in the premiership and in the past 25 years I've looked at since rugby unions professionalisation in 1995, there's been eight different winners. When you compare that to the championship and national one, not that. I know you're not going have full knowledge on this, but it might just provide some context... there's been 13 different winners in the championship and 19 different winners in the third tier National League One.

Do you think 8 is a good thing or a bad thing? Do you think that's a good number or eight different winners? Obviously, some have won consecutively, some have won in like the early area era and then come back and you know, maybe become a bit more of a team again recently I suppose.

Participant 1

I'm trying to think of it as eight out of, if you flip it around, right and you say how many established? Most Premiership clubs have been there most of the way through, it's not, you know, you've got some teams have gone up and down, but most of the way through... How many haven't won it might be a different way, because if you're going to again look at the marketing perspective of wanting every team to think that, well, we not maybe not this season, but someday we could have a chance.

8 out of... That sounds not awful.

PhD Researcher

Yeah.

Participant 1

To be honest with you. Like gut feeling says not awful without looking at anything else. If I compare it to what we've seen in the sort of, what was the Magners, URC like certainly has been problems with dominance and different sort of ability and budget. You know it's structured in a very different way, it seems OK. Yeah.

PhD Researcher

Yeah, I agree that. So those eight are Harlequins, Exeter Saracens, Northampton won once, Leicester Tigers, London Wasps rebranded as Wasps, Sale sharks have one once and Newcastle Falcons. So, out of those eight you've got three teams who have only won one and then the other five potentially picking up a couple, but it does provide that... There's no

kind of two or three teams running away with it. Yes, they've got a bit more of a majority, but then there's a couple in there in that sort of category

So, another element to increase competition is the idea of bonus points. It's not seen in any other European sport that I can think of in the top of my head. It's more of an American thing, potentially, but it's also a little bit random, how rugby union have decided to add extra points for different circumstances in a game? So, what are your thoughts around bonus points? Do you think they make a difference in the leagues or the league standings, or getting to finals and things like that?

Participant 1

They make they definitely make a difference. It's good from the spectator point of view and that it can keep things a little more interesting later into a game. There's been analysis done on different bonus point systems in rugby, so the one used in France is different than the one in the UK and in the 14 for example and super Rugby. I prefer the French system. It's worth looking at. There's been there's been papers written on those systems. Yeah, I think I think it's good cause out of... Again, the difficulty with rugby posed to something like football/Soccer is that you can have the physical dominance factor in a game that if that's established very early, the game is not coming back, it's just not. So, you keep something interesting on the table for both sides. It's good, it's good for the it's good for the individual game. It's good for, you know, other players trying to make an impact later in the game when it is, "gone". There's something in it for sure. It's weird to me the way that we haven't followed the French model and tried to tweak, but yeah, for me it's a good thing for rugby.

PhD Researcher

I've actually just picked up on that point that it's never been changed since it's been implemented. There's been no kind of review of it. There's been no look at it. And actually, what's really interesting from my findings when I was looking at this from a very broad view is that regardless of bonus points you in the premiership, if you are a team who finishes eighth, you will still finish in eighth. If you finish first, you will still finish first. From across 25 years of data, there is few changes where a team has finished in a position but non that is

like detrimental, only between 6th and 7th, not between your top four, not between your bottom three. So, actually if you look at it from that point of view. We don't need bonus points to determine the outcome of where teams will finish in a league before their playoffs and things.

Participant 1

Yes, if you got the... then you get into the different structures of competition. So, in a long season like that, teams getting fours and fours and fours and fours, what's the difference between four and fives? It's not huge. And then people are picking up the other ones. So, there's a what's difference between one and five, four and zero it's the same.

And where we've seen most impact as in European competition with the smaller pools. So, if you suddenly, if you get a high scoring, narrow loss then, suddenly you could have a couple of losses in a short season where just playing like a couple of games (just in the pool stage), a couple of games at home and away those bonus points then become absolutely crucial. That was part of the genius of the old format. The new one in the European competition is crazy.

And the one thing about, because you're completely right now assessment, the that's why the French system to me is better because it rewards pure dominance. So, it's harder to pick up a cheap bonus point. So, with the English system I think let's call it the common system... If we both go out and I score five tries and you score four tries, we both start off with the bonus point. But I've actually not been dominant. The French system, will reward me for scoring more tries than you, which for me is dominance. And that's to me a little better. But again, the French have actually tried a few things differently over the years.

PhD Researcher

Do you think that the French is (Because you'll have more knowledge than me on this one), Do you think the French system is better now than it ever has been? Do you think they're finally getting it right or?

Participant 1

I think, theoretically, that balance works better for me on purely on the try scoring bit. And this is again, it's weird that we haven't looked at this properly. I'm sure like the rugby, the game analysis unit in World Rugby are always looking at this stuff and we have so many more tries scored in the game now, that a bonus point, an attacking bonus point is cheaper than it ever has been. And that's why, you know, looking at different ways to reward... and again, what are you trying to achieve? Are you trying to reward dominance? Or you're trying to make it exciting for the fans? It's always, it's again, it's this push and pull between something which is exciting but inherently imperfect, but not so imperfect that to your point about as well, does it actually make a difference at the end of the season? Well, no. But it's kept people on their seats a bit longer for the individual 80 minutes.

PhD Researcher

It is interesting how much 'fans' have come into these discussions and we've not even like... I've not even mentioned it to you, but the idea of competition is dependent on fans. It has that external kind of influence on things off the rugby pitch, that teams and clubs need to have an awareness of I suppose, to survive maybe.

Participant 1

Yeah, 100%. And that's when it and again, if you looked at some of the different law modifications. And now we're moving away from competitive balance, but when you talk about the awareness of fans, your game as an entertainment product? Australia is a great example because rugby union is way down the pecking order there. Rugby league is king, so some of the innovations they want to take from rugby league and also the teams, they kind of know they need to play in an attacking, entertaining way because you, if they if you're just kick you kick all day, people won't watch. Here, they might over there, the wont.

PhD Researcher

And how much do you think, because it leads me quite nicely into the next question, how much do you think broadcasting and sponsorship has an impact I supposed on the

entertainment value of the sport. Does that then try and contrast competitive balance? Are we trying to find a happy medium? I suppose between fair and even? Versus this entertainment that we put on, needs to be a spectacle, it needs to keep people coming back. Or do you think it does swing one way or the other?

Participant 1

No. Well, that's right at the heart of what you're so well question is. OK, because you're if you want to design a perfect system to reward the best team. OK, have a particular reason or competition, whatever you have, you probably play 100 games, over a year. And that would sort out very quickly with the strongest team is, but no one will be interested. It's like baseball, the play 162 games because they know that there's a little bit of luck in each game that evens out overtime. But it's a different rhythm to what we want. We're used to a shorter season and now we've got the shorter playoffs. If you have. Like, what would be perfect unpredictability of outcome? It would be that every game is a coin flip and you have no idea what is going to happen.

PhD Researcher

Yeah.

Participant 1

The TV people would kind of love it. But also, there is something, personally I like about having a big, dominant team (like a team can go to a cycle of dominance)... You know when you get something running too long, where it's too predictable, that's not good. But there is something about having something to aim for and a bit of 'giant killing' provided it's in a cyclical fashion as opposed to something like we see in in football where it's just it's completely now transparent that some teams are supercharged financially and they can never compete. And Saracens in a different way in rugby we've learned that. I'm sorry. I've gone a very circular way around your answer around your question.

PhD Researcher

It's fine it. It is interesting because it it all links back to the theory. It's really interesting from

my perspective how relevant it is because whilst there is this theory that we want on certain outcomes, there is also an element within that, where fans will go to a game, where they know they're going to get a good game, and even if they lose because it's a good team, they still enjoy that as an event, as an entertainment package, just as much as they would not knowing a score line before they went in.

Participant 1

And also there's an element of: If you do get a perfect unpredictability of outcome for every single game, how does that reward a team for doing certain things better? OK, whether that be on the training field or whether tactics or introducing new, you know, young players or something in terms of how the club is run financially.

For me, a good competition is where the best team, will have the best chance, in the competition as a whole, and that can be rewarded. After that, it's deciding is that my reward or is it getting my trophy?

That's a philosophical discussion, and that's where, you know, this year in the URC, Leinster going: we finished top of the table, again, but you didn't bring home the trophy lads. So you know, but we kind of agreed everyone's agreed the players, the coaches and the fans, if you're all agreed that that's the nature of the competition then you buy into it.

PhD Researcher

That actually brings me quite nicely. So, you briefly mentioned it there, on to one of the last, I suppose elements of competitive balance within rugby because that's the salary cap, when you spoke about Saracens. It has been brought into rugby, I think every sport has got a degree of a salary cap, whether it's like financial fair play or we've seen tweaks in the F1 systems, but the salary cap is something that's changed quite a lot I suppose in rugby over the past 25 years, it's gone up, it's gone down and there's always discussion whether it should be higher or should be lower.

So, what do you think the salary cap has done to the game? Within the Premiership and then externally because obviously like T14 is higher, does that take away players from the game? Is that the natural progression, I suppose for English players to have their chance here and go over, that's what we see a lot of.

Participant 1

It's a good question, and my feeling and this isn't something I've looked at... but, my feeling is that in England, and in France it might be slightly different: In France my feeling is that that Salary Cap was introduced and that has stopped the absolute dominance of a number of very rich people just taking over the league.

In England, my feeling is slightly different, there is an element of that. But it was more to stop the clubs from trying to overspend and overreach and run themselves completely out of business. And, there's kind of a bit of a, not chicken and egg, but you can be viewing these things from a number different angles. Because we have had extremely rich people in English rugby as well. So, it depends on which angle you look at that from. It's very hard to look at it in isolation from the Premiership though, because as you say, a rugby player's market is global, but restricted. That's one of these funny things. We kind of accept that if you want to play for England, you need to play in England. You know, same in Wales, but to in less extent and certainly it is the same in Ireland, certainly it's the same in New Zealand. It's one of these things where we kind of accept that it's a game that has these restrictions because you've got this outside influence which is Test rugby. You know, so it's very hard I think, to come up with one particular answer. You'd have to always 'couch it' in terms of, well, here's my assumptions. And here's the restrictions that we're working in.

So having got there, and with all those different caveats, yes, I think the Salary Cap is a good thing in English rugby because it has stopped the potential influence of super rich people, using one team as a 'plaything' and other teams go into the wall because they tried to compete.

PhD Researcher

And I'm trying to decide which avenue to take this down, so I'll go a Championship route, because there are a certain amount of teams, so take Bristol or Worcester, who come up and go back down and whether that is on pitch performance, whether that is salary cap can't compete in terms of money, can't compete in terms of finances, it's obviously unknown.

I can only paint a clear picture of them coming up and going back down and there's a couple more teams in that kind of category. Do you think that is financial orientated or do you think it's performance orientated, or do you think the salary cap has any impact on that because there is no salary cap in the championship so they could in theory spend what they want to spend to get up to the Premiership.

Participant 1

And then the problem is staying there.

PhD Researcher

Yeah.

Participant 1

I don't know. And that's one I don't have a I don't have a view on that one.

PhD Researcher

Yeah, that's perfectly OK. Thank you.

PhD Researcher

And finally then I supposed to conclude the salary cap conversations. What are your thoughts about the punishment awarded to Saracens? Do you think that was fair, there was a lot of discussion back then that the RFU came out quite harsh, just kind of set a bit of a

presidency to stop it from happening again. Yet, looking at my data, they've gone down and come straight back up. So you know, what's that worth it? Maybe, maybe not.

Participant 1

Erm... I'm on recorded saying the whole thing was absolutely hilarious because, Saracens... it just looks so transparent from the outside that they were not complying. I think that one of the difficulties, one of the things in the background, that came from the outside is that there had already been that initial investigation previously where it was that everything was kept confidential. And from the outside, I think, my feeling is that if I was running that competition, I'd have said guys we get one free pass on this, if there is any taking the mic, the book is getting thrown. And they were taking the Mick when you read the full report and therefore the book got thrown. So I suppose what you're asking really, is about, was the was the sanction effective of given that they came straight back?

Well, they came straight back and we won't know if it's effective until we see other teams, do this. Does this impact... if you look at it like player discipline like you penalise the player, they're gone for a three games, right?, but is that. Is that providing a deterrent to both that player and other players from doing the same thing? So that's the way I look at it is that we probably don't know yet.

PhD Researcher

It's one of those weird ones. They had to do something, but it's not happened before. So, how can you know what's right and what's wrong to do in that situation? And like you say, we'll see in a couple of years. Just to conclude then, how do you think Premiership Rugby might look in the next five years? Do you think there's anything that stands out to you that needs changing? What would you think? English rugby have recently had a restructure in the lower leagues and salary caps coming down in the Premiership. How do you think it looks in the next five years? In regards to competition do you think?

Participant 1

Five years is an interesting time period because you're going through a full you.... You'll be

hitting two World Cups and there's a cycle in between, so we'll see. From the competitive balance point of view, you will probably see a changing of the guard in terms of players who are away on international duty and effects. That's the big challenge here for English rugby. OK, because unlike, for example, the URC model and the way the teams of Ireland, Wales, Scotland are owned by the unions. You know, it's clear. Well, Wales are going through a complicated time, but in, fundamentally there's a principle there of Union ownership. And that means that we don't have this constant tension about... well, I've only got my player available for six games of the season. I think that's going to come to head in the next five years. And that would absolutely impact competitive balance

Like, what we talked about earlier... Saracens through their heyday, having a lot of players away was actually good for the Premiership in terms of competitive balance. So, if you swing that round again and I don't know how they restructure the season. That's the thing they're in. Until we get the global season, like the global season could impact this also with aligning all those competitions, I'd have to have a real think about that. But it but from the Premiership perspective, that constant tension they have between the club owners, and the Union is the one which could come to a head and I'm not sure that would end well.

PhD Researcher

Yeah, I agree. Something again, there's a lot of the reasons but I started writing my PhD in Rugby because I sat there thinking to myself, well, this doesn't happen in football. And why is this? And in, in theory it's the same game football. You know, green pitches, goals on either side, this kind of game where there's a ball involved but football is just so much more of a bigger, bigger phenomenon than rugby and that's why I started my PhD in the 1st place. Because when you compare the way that the international fixtures work then to football and how football break a season so that people can go in on international duty, whereas rugby it's like: Oh no, we crack on as normal, you lose your best players I think, yeah.

Participant 1

And that's it, and that's even different in the different competitions as well. So, in there is one thing, which has been interesting, when you look at the South African franchises joining

the URC now is that they're now getting used to competition where Super Rugby it's played in the block. And then you go play your test games. You know, whereas we're always kind of used to this historically, there's kind of always been a natural 2 natural breaks in the in the season, which is one for the Six Nations obviously and then one for the touring sides come over and in November and we kind of accept this because again, the big difference between football and rugby is that we know, it's like 80% of the money of the revenue that comes into the elite game comes from everything associated with the men's test side.

It's just off the charts, so there's kind of this unspoken and unmentioned, but inherently understood thing that, OK, we'll roll out whatever you need to roll out while those games are on, and then the URC, they've changed their structure now to try and create those. So, we don't have that overlap in those games on those weekends and we still lose players, because players are often on training camp and that's the biggest thing like the French have a different balance again because the French coach doesn't get those players for as long as Eddie Jones does. You know, it's weird because the thing that people don't remember about rugby is that it's actually a very niche sport. You know, it really is. And there's a very few players, very few counties and elite level championships and I'm not sure unless, it maybe takes off in the states or something, it will always be that way, you know. So, I have every sympathy, the most sympathies for people trying stuff as long as we learn from it, you try stuff and it obviously doesn't work and you keep doing it. Then I have no sympathy but it's there. You've gone through this in a very structured way.

Appendix 2: Transcript from participant 2

Participant 2 – CEO of a Premiership rugby union club

Before starting, all participants were read the following information:

Firstly, I will be recording the interview, only for the purpose of transcribing the conversation. Once you have given your verbal consent that this is OK, I will press the record function in order for us to begin.

However, as per the participant information sheet, I will keep your identity anonymous throughout the PhD and any further research such as papers etc., Where I refer to you as X in this conversation, I will change that to participant 1 etc.

Just checking that that is all OK and you give your consent to continue?

Consent was provided and therefore recording could begin.

PhD Researcher

Perfect. Thank you. So, I will start by providing a definition about the PhD. I am studying the concept of Competitive balance. Competitive balance refers to balance between sporting capabilities of teams. It includes a concept known as the uncertainty of outcome, which is the more unpredictable the score lines are, the more attractive the league is, whether that be to players or whether that be fans. And there's more engagement there. Specifically, it is the situation when no one team or no one club within a league within the premiership, within the championship, within the national one, has an unfair advantage; hence a competitive balance.

Participant 2

OK.

PhD researcher

That topical in the premiership, I'm aware and so with that in mind, I would just like to start off by discussing that I suppose from your perspective in the context of rugby union, and do you think rugby union is competitively balanced? Do you think it has any unfair advantages or what are your thoughts I suppose?

Participant 2

So, so we can talk generically, and we can talk of the situation that we find ourselves in now because COVID changed various things. So, if I talk you through that, it depends how you want to then use that whether you want to use it sort of as a for now scenario versus as per normal. So, and previously what we had was a salary cap of 6.4 million and we had, to... I don't know how much you know about rugby or the CAP or how it works... but we had two marquee players as they were called. So basically, two players that were excluded from the CAP where you could pay them what you could afford to pay them and there was always the possibility even though the majority was on a level playing field of that competitive advantage because clubs that had wealthy owners and had a lot of money behind them, could afford to pay and two players £1,000,000 each, and suddenly they're paying X amount in the salary cap versus somebody that couldn't afford to do that at all. Now there were restrictions around who those Marquis could be, and they couldn't come from another club and so on and so forth with a million rules around it. So there were always, some part and some form of disparity.

Now when COVID hit and suddenly everybody in the world over but sport and was in a predicament of all of its income, just stopping overnight and there were certain measures that were taken in order to make sure that the clubs survive basically, I mean it was that dire. And one of those measures culminated in the salary cap being planned to be reduced to £5 million from the 6.4. So initially because nobody was generating any income, everybody at clubs had to take a salary reduction the way that was all dealt with there was all kinds of issues with players not happy, players not understanding, players instructing lawyers, it all got very messy. But a decision was then made because of and during that time that for next year and the year after, our salary cap will reduce from 6.4 to 5,000,000. And then it would also reduce from 2 marquee players to one marquee player, so it was just trying to keep costs under control.

Then you had clubs that turn around and said, well, hold on. We've got players under contract for those years. So we don't know that we can reduce that down to 5,000,000. So, in their infinite wisdom, somebody somewhere decided that anybody that was contracted before a certain date and would qualify for a 25% dispensation in CAP. So that basically means, you know you you've got 100 grand player, because I've signed in prior to this cut off date, only 75 K of his salary will count towards that 5,000,000.

So, they did that for all the right reasons and thought that that was a really good initiative until all of the ALL of the clubs decided to cash in on that. And there was like this bonfire of trying to sign players before this cut off point and resign players. So that you would then have a squad, whose value was at 6.4 or more, but everybody in as many as you could sign would have a reduction in face. So, although our salary cap is at 5,000,000 for this current, this current season and next season, it is not a level playing field. That make sense?

PhD researcher

Yeah, 100%, and it's that's really funny because it's taken me down an avenue that I wanted to explore a little bit more anyway because obviously the salary cap is such a big talking point within rugby. Do you think, I suppose to carry on from that conversation then, do you think the figure of that salary cap even matters while you've got exclusions? And like, almost like lee-ways around the rule? Do you think it matters what that figure is?

Participant 2

So yeah, very, very much, but it needs to be index linked. So, in order to make as a sustainable sport and not rely on a few clubs that have got very wealthy owners that will just plow... the sport is lost making and we need to you know we have a lot of money to the government through COVID bailouts and that kind of stuff so.

The plan always was that the CAP would be linked to central income, so whatever Premiership Rugby as a whole would get so for TV rights mainly to the biggest generator is

your TV rights. So, BT Sport as it is currently. If Amazon come into the mix or the OTT platforms etcetera, then whatever is generated centrally and then divided by all the clubs. The CAP was always planned to be at that level, so that your extra income that the clubs are generating themselves would be paying all the backroom staff, everybody else and sort of breaking even at worst and hopefully starting to generate some profit. So that was always the plan.

And again, COVID is kind of thrown a spanner in the works that with that. So I do think that two marquee players that some can pay and some can't... I don't see the point of it. I know a lot of people, so some clubs, [*Name of Premiership Club*] being one, would say that their marquee players really attract an audience, and it puts bums on seats and they're big names and they're so on and so forth. Does that help them win? The answers, No, obviously. And then other clubs will pay backroom staff so the best coaching group, the best nutritionist, sports psychologist and you know the best strength and conditioning. So everything around these guys, the best training facility is that an unfair competitive advantage because some will have the best of the best and others will really not and so I think that from a financial perspective because unfortunately you know when the game went professional it is a business a lot of people say ohh at the club, my club, I want it to be a club... and that's all great and that's a romanticised version of it but It is a business. So, we have got to be able to pay our wages, pay our debts, pay, you know, and in order to do that. I do think there needs to be a CAP and I do think that that needs to be index linked into what's central pots are generating.

PhD researcher

That's Really interesting. Thank you. And obviously the big I suppose elephant in the room is, is the Saracens breaching the salary cap? Do you think that has made any difference within the Premiership? Do you think it deters people from doing it again? Do you think there's always going to be ways to break it potentially or, do you think the RFU got it right and it served its purpose and?

Participant 2

And I think so. So it's interesting, isn't it? Cause Saracens it was like it was so big because they got relegated and they had to be deducted points twice because we were so bad that [name of Premiership club] were going to go down if they didn't. And it was like a nightmare for Premiership Rugby. What the hell do we do? And, then obviously last year [Leicester Tigers] were investigated for a historic cap breach and it was interesting. So, I think from that experience. I'm not saying it was a good experience or handled well on either side.

And I think a lot of lessons were learnt by clubs as well as the governing bodies. But I think what's happened on that is that it, it is tightened a lot of the loopholes that all clubs were exploiting now to different degrees depending how much money you had. But there was always a way round something and that has tightened that. So that's a good thing.

What it has also created, unfortunately, and what [Leicester Tigers] found so. It was a historic situation where a third party was paying for the use of image rights about players as individuals, rather than me, as [insert name], promoting their product. Rather than [insert name] from [a given team] with a group of people and because the third party was paying some of the players that was deemed to be in breach of the regs and [Leicester Tigers] got fined so but interestingly enough, there was a real concept and (we look back and talk now) is that they believed there was more to find with Leicester s than there was and I think that's because of the scope and the extent of what happened at Saracens. It was kind of like well, is that it?

PhD researcher

If they are doing it, everyone else must be doing it.

Participant 2

[Information regarding a specific club was mentioned here that does not add to the study and has been removed in order to protect the identity of the participant]

PhD researcher

Perfect. Thank you. So that's one big chunk I suppose of competitive balance and so I'll try and move us on to another one. One thing I've actually found really interested is looking at rugby as a whole. I've looked at 25 years of data. I've looked at every league for the past 25 years and so I want to get your thoughts on bonus points. I've found some interesting findings actually, especially within the premiership. Within the Premiership specifically there has been very little change due to bonus points. So, for example, if you're going to finish fourth with bonus points, you're going to finish fourth without bonus points, if you're going to finish 7th, again you will finish 7th either way. So, I, think there's only one season in the Premiership out of 25 that I've collected and analysed where a team has swapped positions and it's only between kind of like 6th and 7th, it's nothing to make a team miss the playoffs or to kind of not allow you into Europe and those kind of things. I wondered if we could speak about that a little bit.

Participant 2

OK. That's interesting. And I didn't know. I think that what bonus points do is make the games more competitive in a way as you get towards the business end of the season, if you like If you know you're going qualify for a home playoff, for instance, if you win the two games previous to that, if you win with five points, now if you win with four, you've got to go to the following week and at least get a point from your game. If you win with five, it means that you've got two weeks before your playoff that you can look at rotating players, players that have played perhaps a bit too many minutes and you want to give them a bit of a rest. Players, they've got a few niggles that you might say, right? Let's get you fit, ready to go into these knockout games so it does give you if you are playing for bonus points, a potential advantage. And at that point...

PhD researcher

At the point playoffs, more so than throughout the season?

Participant 2

Yeah, not more so than ever, but I do also think that if (and this year the league was probably tighter than ever) and you look at other than Leicester and Saracens probably there was a whole chunk of teams that were moving between each other and it's interesting that your findings show that that really wouldn't have made a difference. The perception of all the clubs, everybody in the clubs, the fans, everybody is like: Ohh, we didn't get a losing bonus point. Ohh, we didn't get a winning. Ohh, we could have gone for five tries. You know, it's like this big thing, when in reality it's obviously not. That's really interesting, actually. How I'm going to take that back to the playing side...

PhD researcher

I mean that is end of year standings I suppose, and I'm looking at that for 25 years. Where it does play a bit more of a part, is in the other leagues below where maybe the teams who are winning aren't winning as dominantly. I suppose all the teams who are losing aren't even able to collect that one bonus point to kind of just keep them in the game, they're either really winning or really losing. So, it doesn't matter whether you get 4 points for that or five. And it's funny because I work in Burton Rugby club, I do a lot of volunteering for them. That's my local team and they tell me that they've fought on the pitch in a game. It's very much driven towards bonus points. You chase bonus points. Whereas I'm looking at it from a league standings finishing perspective, so I think that's where it gets interesting that on a game day they may matter more so than at the very end.

Participant 2

Yeah. And I think also from a playing perspective, you know the competitiveness obviously that they have to be and that you look at our game managers. So, for us last year like *Player Name* or *Player Name* that they would be looking and monitoring and the messaging would be going on to the pitch that you've got to go for another try. You've got, you know, don't just kick if you get a penalty, don't just kick for the points, let's go and get this other try cause that point will matter at some point.

And I and I think also from a from a, if you were a fans perspective, if you're not going for those bonus points there. Ohh well, they didn't even bother. They're not interested and they're, you know, you get all this negative stuff being thrown at you. So yeah, interesting.

Participant 2

Yeah, yeah, yeah.

PhD researcher

Yeah. So potentially more match day, consumers, fan engagement that kind of attractiveness?

Participant 2

Yeah, and the competitiveness of the players because they wants to be like, yeah, you know, we smashed you and got maximum points that that kind of thing.

PhD researcher

Yeah, that leads me. Then onto a, I suppose a different kind of chain within competitive balance. I've also looked at dominance.

Do you think the Premiership is dominated by a few teams like we see in football?

Obviously, we've got the Big Six in football, they always tend to win it maybe... a bit less. So do you think that exists in rugby?

Participant 2

No, I don't think so. I don't believe so, because if you look over the past few seasons and you know there, there's been, so Leicester won last year. Harlequins won, the year before it was Exeter. You know there there's been that change and a team can ride high for a number

of years and clubs weren't touching it's weren't coming near. Then you start to get people that are right I'm serious about my club now what a we doing and we're going to do it.

And [*Premiership club*] are sitting here being look at us, aren't we so great and getting complacent? And then what happens is we just carry on as we are without innovating. And these guys are like, oh, I'm copying you and innovating. And before you know it, we're playing up for, you know, a relegation battle. And you're like, what the hell has happened to us? And then you look at people like Exeter or Saracens and say, right, OK, I need to pick up and yeah. So, I don't think so anymore. And I think as the leagues are only going get more and more competitive. You know, you've got some real strong players. I was talking to [*Premiership club*] the other day and my oppo there and they were like, we're coming for you this this season. We've put things in place. We know what we're doing. We've had a look at what you're doing and any competitive advantage that you have in any given year... So we do a lot with statistics. So [*head coach*] is statistic mad right mad on. We work with a couple of guys statistically. They help us with recruitment, but they also help us with pre-match and in-match to say, if you do this, if you kick at this point in a game, if you don't do this then this is the outcome. These are the percentage chances. Its about always having to find another point of difference and another point of difference. So yeah.

PhD researcher

That's really interesting actually, because data just getting bigger and bigger, isn't it?

Participant 2

Yeah. Yeah, massively so.

PhD researcher

But what you just said there as well it that that point confirms my data. Actually, I've got a competitive balance index that I have calculated and put some figures behind, but the trend is that the Premiership is getting more and more competitive since its formation like 25 years ago. And so that does follow the pattern. Do you think that's the same at the bottom? Do you not in the terms of dominance, but do you think at the bottom of the table they can

compete? Do you think they're able to come up from the Championship and be able to perform?

Participant 2

Yeah, I think that's really difficult, isn't it? Because there's two schools of thought.

[Participant 2 wished for this section to be removed from the interview script due to the specific details included in here. However, they identified, that some teams have significantly more money than other Championship teams (sometimes millions more), with the main ambition to be promoted into the Premiership. This however highlighted a discussion on how long that money is going to last in a given club and what happens when there is no money left.]

Participant 2

So as the Premiership League, what do you do? What do you say?

PhD researcher

Yeah, you. You almost don't want them in for one reason, and don't want them in for another.

Participant 2

But it's like come up for a year because you really deserve it. And let's ignore the minimum standards. Doesn't matter if you've got 10,000 capacity, doesn't matter if you're not under cover and all these things. Let's really try and grow you and invest in you, knowing that at some point at any point [the money could just go, and that will have a detrimental consequence on that individual club]

So, we've got links with [*a Championship club*] and they have no interest in being a Premiership club, you know they're happy to be where they are. They would like more support from the RFU, of course. And but they've got no ambition to be in the Premiership.

And then you look at [*Championship team*], who their own councils say, we'll build your stadium. We won't. We will. We won't. And it's kind of like look guys, we've [the Premiership] have got to have some surety that if we're going to invest money and you coming up into the Premiership and then you're going to take one of the slots for the games and all that money that that involves you know you're crowds first of all then your secondary spend, your shop, you take all that kind of stuff then you're going to be sustainable and you're not going to go pop after two games in and everyone's then left with, you know an issue so.

PhD researcher

Because we've seen that to a degree before with London, London Welsh.

Participant 2

London Welsh yeah, yeah.

PhD researcher

And yeah, like you say, it's not good for the game.

PhD researcher

Am I right in believing that the premiership wants 14 teams?

Participant 2

It personally, personally, I think that we [the Premiership], we should have 10 teams and that it would be more competitive, more attractive, more financially sustainable. And so, I think for personally I think 14 teams. There's too much, too many.

PhD researcher

So obviously the whole league structures down to kind of the grassroots is going through for the twenty 2223 season, a restructure and they're bumping people up. But it will be really interesting to do some findings after this, because I know just from Burtons League, they're in the Midlands Prem, so they're not even kind of like that professional standard anywhere

near it. But there's teams coming up that you just know aren't going to be able to compete with them who have been in that division for four or five years.

Participant 2

Yeah, I think it is an element in. In an ideal world, if you if you're starting again, you would link a Premiership club with Championship clubs with then local clubs under that and real have a feeder. And then what way, way, down here, almost to your many in juniors, that if you're playing one that's supported by Northampton Saints for instance, there's that competitiveness, it becomes more attractive, it's more meaningful, people go and watch it, etc., etc.,

PhD researcher

That boosts fan loyalty as well, doesn't it? You've got that connection with the clubs above you rather than people say from Burton you where you could go to Wasps or Leicester, you've got a couple of teams where you could potentially go to.

PhD researcher

That's really interesting. Can I ask as a final question then, where do you think the game in itself, maybe the Premiership is heading in the next five years? Where do you think it's heading or where does it need to head potentially?

Participant 2

I think it needs to... we need to consolidate; we need to be financially sustainable and how we do that? There's the owners have different schools of thoughts. It's frustrating and the executives are pretty much all in agreement of how they see it working. There's ten league team. And you look at the world game that they're trying to include. And I understand why they're doing it. You look at Europe, and what was the Heineken Cup and what it was in the past, the most the pinnacle, the most attractive, it's lost its way, it's lost its identity and we're now giving away key weekends where we have no crossover of international. So, we have a European fixture that attracts less crowds than the Prem. So for me, I think we need

to make our own league the best in the world that everybody wants to play in and everybody wants to watch.

PhD researcher

Yeah, it's really interesting. You said that actually based on a previous conversation I've had with [Participant 1], they said that the same thing, it's lost its spark and I've done some research to find that. Yeah, there's a very limited number of teams dominating that. There's a lot of teams competing in it, but it's the same teams that tend to win that and kind of.

Participant 2

And also from an attendance perspective, across all premier clubs you get a higher attendance at Premiership games and you do it European games. Now it's not the big attraction that it once was, it's absolutely lost its way. So, we either need to give it an identity and go big and really promote it or we need to swap our weekends out so that you're seeing the stars of the Premiership plan in the premiership.

Appendix 3: Transcript from participant 3

Participant 3 – A current player and Head of Communications of a championship rugby union club

Before starting, all participants were read the following information:

Firstly, I will be recording the interview, only for the purpose of transcribing the conversation. Once you have given your verbal consent that this is OK, I will press the record function in order for us to begin.

However, as per the participant information sheet, I will keep your identity anonymous throughout the PhD and any further research such as papers etc., Where I refer to you as X in this conversation, I will change that to participant 1 etc.

Just checking that that is all OK and you give your consent to continue?

Consent was provided and therefore recording could begin.

PhD Researcher

Ok, so I will start by providing a definition about the PhD. I am studying the concept of Competitive balance. Competitive balance refers to balance between sporting capabilities of teams. It includes a concept known as the uncertainty of outcome, which is the more unpredictable the score lines are, the more attractive the league is, whether that be to players or whether that be fans. And there's more engagement there. Specifically, it is the situation when no one team or no one club within a league within the premiership, within the championship, within the national one, has an unfair advantage; hence a competitive balance.

So, with that in mind, I know that your kind of like the expert in regard to the Championship. Do you think rugby union is competitively balanced? And do you think your league particularly is competitive?

Participant 3

UM, if I say let's start at the top. I think the top teams to be fair, I'll give it to them, I think they are pretty balanced. I think if the main push on that is being competitively balanced it is normally based around the money to be honest and budgets and spending, stuff like that and they do, the RFU do try and do their best to put a cap on that and you have seen teams punished previously for that like the Saracens stuff, the [Leicester] Tigers stuff. And I think that does keep it balanced.

So, I'd say like the top's pretty good. I do think there is like a big six again like there is sort of like those big clubs. But I wouldn't say it's necessarily built on competitive balance, I would say a lot of them are built upon, kind of heritage and history of the club like [Leicester]Tigers, for instance. They are renowned for what they are but then again, like you've seen them in another way, they've gone through like a revamp few years of having to find themselves again. But like that happens.

In terms of the Championship... It's very different. I think obviously with the cuts that came in across the past few years, that has kind of been a bit of a take away from the competitive advantage because you've got kind of a split in teams. You've got like five or six teams that operate on a full-time basis, full-time contract, players that are funded on a full-time salary, whereas you've got teams like *ourselves* who are operating on a part time basis, with players coming in after work, boys are tired, like it's not the same and the funding's not there. We rely on private sponsorships and people investing money into us in order for us to survive. So, I'd say that the competitive advantage kind of gets a little bit jaded there and the kind of something is going to fall off a little bit. And I think you'll see that in how the league, how some of the teams in the league, compare themselves to other ones like we, we had a goal last year to be the best part time club. We didn't really care about the ones that were full time because we can't compare to them because we're not, alright we can try, and go close and we can push them, but ultimately we don't have the same setup.

PhD Researcher

So it changes your like strategic objectives? No longer are you fighting for the titles. You're fighting for kind of smaller things within that championship?

Participant 3

Yeah, don't get me wrong. It's good to try and turn over some of the big clubs that have got the extra backing and can afford full-time players. And like how it would be cracking if we did. And we came close last year. I think we're going to go again this year and we're looking good. But like, yeah, it's, it's almost... it kind of is a bit of an unfair advantage in a way.

PhD Researcher

I agree it. It certainly doesn't seem fair, when considering we have structures within the leagues, we have the premiership, we have the championship, we have national one. To kind of keep those subsections a little bit more fair, do you then you create further subsections within them. But, it kind of defeats the point. You may as well split the championship in half.

Participant 3

Exactly. And yeah, the whole teams not being able to go up and stuff into the Premiership based upon like ground, facilities, and then the teams in the Premiership don't have those ground facilities anyway, it just, I can't really understand that to be honest.

PhD Researcher

Do you think that affects the motivations of going up, the minimum standard requirements do you think?

Participant 3

No, I honestly don't think it does because I think it puts fuel to flame of those clubs that do you want to go up and kind of proving a point that they should be going up, to be honest.

PhD Researcher

Ohh, OK. So it's almost just the opposite?

Yeah, I'd like to think so. I don't sort of think that the people at the top of our league sit in our league and go, uh, well, we can't go up. They still want to put as many points past that other team, as much as possible and they want to make a point that they should be going up. So, yeah, I'd probably say it's it adds to them more than anything rather than taking away.

PhD Researcher

Oh, nice. That is really interesting. OK, so as I like mentioned pre interview, there's different mechanisms in place within rugby union. You've mentioned a couple anyway that are put in place to aim to increase competition and I thought maybe we could chat a few some of the through some of these to see how they impact you. So, my first one is a salary cap and I appreciate that the Championship doesn't have a salary cap so it probably doesn't affect you directly. But, do you think it's a consideration at all for Championship teams in their drive to progress? Or do you think there is almost like unlimited spending at this point in the Championship and you deal with the salary cap when you need to deal with it?

Participant 3

I think it it's all going depend on what you can do with what you've got. Like some people, and some teams are in fortunate enough positions to have, to be able to exploit the no salary cap for instance and be able to spend money where they can and when they want. Obviously, it depends where you're driving forces are and what your goals are. So like for us, as a business and the way we operate, we are there to try and break even as such and try and make a profit if possible, which will then enable us to then put more money into that salary. To help us push on through the table and which we'll hope in reflection will kind of fuel that business model, if we perform better on the pitch then the return will come in the bar and money and it kind of is, an on-going cycle that's for us specifically. But I think obviously there are teams that are pushing for the top, that I think the no salary cap [*in the*

Championship] is really is good for them. It's good for them in terms of the fact that they've got that unlimited spend to be able build a team that they know can be confident for a whole season. Like you look at [*Championship team*] like they're signings this year like galore and like big signings as well from big clubs. And you can tell they have got an intension. They want to go up and they don't want to miss any box that the RFU can't tick to say you can't go up, they want cover all basis. And I can completely understand that and I think... They are, yeah, in a way, having no salary cap, the RFU of kind of messed up a little bit in a way because it's giving teams that option to be that dominant and if they're not going let them up, then they're sort of counteracting that in a way. And so, it just seems a bit backwards really.

PhD Researcher

Yeah. And what's interesting there, you've almost stated without stating it... I don't know if you realise you've done it: There are these few teams that have money to be able to do with what they want, and then there's the teams that don't even consider a salary cap because they're getting nowhere near it, regardless of whether they would ever want to or not. Do you think a salary cap within the Championship would help? Obviously not at the you know the 6 million figure.

Participant 3

To improve competitive nature 100%, I think. If you were to ask, *I'm probably punting a little bit here*, but I think if you were to ask people, other teams who have got money to come and do, what we do as such on the part time basis. For example, go and work 9 till 5 and then come to training afterwards. If it was a tight salary cap, I don't think you'd see the appeal for some big players that go to these big Championship clubs. I don't think you would see it; they'd be going elsewhere, you'd be going to France or whatnot and going to get a decent amount of money.

Yeah. If I think if there was one, it would be interesting to see, I think you'd... You would definitely see a big change in how the league would function and where the standings would be, to be honest, because I don't think there would be as much appeal for it.

PhD Researcher

Yeah, that's really interesting. Thank you. I'll move on to bonus points. Obviously bonus points are huge in rugby union and they're actually something that aren't used in in any other sport and they are a bit of a unique factor to drive competition. What I will post you to is that in the Premiership I have found information that states you will finish in the exact same position without bonus points. So, if a team is going finish first, it's going finish first without bonus points. If it's going finish 7th, it's going finish 7th. Now there's a slight change in the championship, so there's rare occasions where it has mattered, but it's never affected the 1st place position anyway, and obviously the league is dependent on that first-place position, so there's slight changes, maybe where a team could have come third, but instead finished fourth, or could have come six but instead finished 7th. And actually, that doesn't matter in the grand scheme of things because the key positions are at top and bottom where you're promoted or relegated.

So what do you think? Bonus points add to the game. Do they add anything? Do they change anything for you?

Participant 3

I think for us, I know I'm just talking off what I know and what we have thought about. It is kind of like I said, we split the league up into who we want to target and I think, obviously that ability to gain bonus points is almost like an added motivator towards those games where you like, right, we want to battle this team. So, for instance, if you took like whoever finished bottom, actually [London] Scottish, we take a bonus point from them and it's about kind of asserting yourselves over those teams, especially if your playing someone that normally finishes around the same sort of area in the league as us normally. When we play them at home, so say if we played them at home first we'd be hunting the bonus point because it gives us that confidence going on the road. Yeah, I suppose now you told me that it doesn't really make a difference based on that. Then it's like, uh, it's a bit weird, but it's kind of one of those intrinsic motivators that kind of gives an extra edge, isn't it? I think it's an extra thing to go after. It's it can be another motivator that can kind of come across externally. It's just another thing to like kind of aim for, I guess.

The way in which the bonus points works, you achieve them in different ways, isn't there? There's like the four tries and the losing bonus point. I would like to think that some of them, can be about making a statement as well. So, it's a statement going score four tries against someone I think.

That's quite impressive. Like it's a good thing to be able to do that, like you can battle someone you can put 43 points past someone, but if you've kicked all the points pretty boring, I think to go and put four tries past them is impressive. One of them unwritten things. But, yeah I think they can be a statement in many ways both on and off the pitch.

PhD Researcher

Do you think they contribute to the game plan at all? Do certain teams play a kicking game and for example, just try and get the game points and forget about like league bonus points. Or do you think people will chase bonus points if they know the game's tight or?

Participant 3

Yeah, I think it's more actually I think one you'll find is when you're losing is going after that losing bonus point because there's a chance of still gaining something from a game rather than nothing. I think we came. I think we had like two last year where we lost our losing bonus points at home, and it was like.... we ended up walking away with no points and it can be a bit dire. Whereas, if you get something it's like we actually got something that can be a little less hot hurting I guess. But ultimately if you saying that it doesn't make a difference in your league position, then why are we caring?

PhD Researcher

I mean when I say like it makes no difference, on league position, that's if every team were to eliminate bonus points. So if, for example, you said, no, we don't need to chase bonus points because they don't matter if then [other Championship clubs] were chasing them, that might then start to draw a bit of a different because they're chasing them and you're

not. And whether that affects individual games potentially. But at the end of the season, as long as everyone on the same page, it may not matter.

Participant 3

Yeah. Yeah, I guess if that's the case then.

Yeah, like I said, there's definitely games that you target, and I think it does probably... I don't know if it comes into strategy, to be honest. I think strategy wise it's all about the win and I don't think you can really say that we're going target a bonus point in this one. I mean, yeah, you can say it in the speech or whatever, like we're going after a bonus point in this one, lads. But there's no way in which you can strategize a game plan to go: we're going to go out and get bonus point by doing this.

PhD Researcher

That's interesting. Thank you. Another key point, I suppose, for my findings, particularly within the Premiership and the Championship, that we can probably talk about it like going down to national one anyway, is this idea of dominance of teams and it's actually formed something that I've categorised as Yo-Yo teams. So for example, it is the same teams going up as going down, and they going up again. So I suppose my question to you is, do you think your league is dominated by a specific number of teams or do you think every team has that chance? I suppose it's coming back around to the first question.

Participant 3

If you were to ask me this two years ago, I'd say No. I'd say that there is a good chance that any team can finish anywhere and it was all about the teams who turn up on the day of each game, but now? With the state of it and the way that some teams are operating I would definitely say that if you'd literally just go off a basis or full time and part time... Full time should be doing better, like it's the way it is.

PhD Researcher

And when you say two years ago, is that because of is that because of COVID?

Participant 3

Yeah. So, this is pre-cuts and pre COVID. So pre the RFU cuts and pre COVID when we were operating full time. All the other clubs are like mainly operating full time basis. It was pretty even. Like I I'm pretty certain we finished fourth about four years ago or something like that. And we just had a good season and that can happen like it's kind of that like.

PhD Researcher

That's the nature of sport, isn't it? That's the beauty of sport, that's why we love the game

Participant 3

Thats the nature of sport, its like Leicester winning the Premier League.... that can be you in your sport. Whereas I think now, yeah, it's very hard to compare. The setups of the two different types of teams in this league. However at the bottom... I don't really know. Because I'd say like the top, it's easy to define them, but the bottom I don't really know. I think it's still very open, to be honest. I think with what you'll find at a lot of the clubs now, so ourselves, [a list of other Championship teams, we are seeing a lot of premiership teams that are putting a lot of development players through them. So, we're basically becoming like a Prem Cup side to be honest.

With them, I guess it it's kind of who gets a good bunch, that sort of thing and that can reflect in how the Premiership goes two years down the line. So, if we got a good bunch, you'll probably see [our respective 'Prem' club] win the Premiership again in three years because they will have grown up and been in a professional environment and the likes of [current Premiership player] that was here came to us when he was 19, crept in the door and now he's playing for England two years down the line and it's like. You have to see what

you get from them, because without them, we wouldn't be able to survive. And we can't afford a squad, that that can survive a season, really.

PhD Researcher

And that creates a different variety of people within one club? All with different mindsets and goals?

Participant 3

Yeah, of course. We have to consider what their goal is here. It's to try and prove to themselves, to move on to that next spot, and I think the Championship are a funny place because you've got such a blend of different players with different mindsets. In terms of where they are in their career, because... and that's a funny one, because you look at [Championship club] right? They're normally an older team. They kind of settled in the league. They're not really getting many players in there that want to move on to the Premiership.

PhD Researcher

Wow, really?

Participant 3

Then you come across to us. We've got like, our average age is like 22/23 these days, like really young and it's lads that want to push on. So, like the brand of rugby that you play is different. So, we play like a rapid quick game and [Championship team] play a boring game. [Championship team] have a weird blend of like old people and young people. Yeah, it's kind of a funny place because you've got all the different people and different like mindsets of where they are in their career and where they actually want to go with it, which I guess can also....

PhD Researcher

I suppose that's been made even worse now that it's there's full time and part time?
Because before rugby was still the overall goal? I suppose when you are part time, you've still got other priorities outside of rugby?

Participant 3

Yeah, exactly. And yeah, it kind of brings it to fruition, like we've had a couple of lads that are like have just gone well... You got both ends a spectrum to be fair here. We had like a lad that was working 9 until 5 every day in the normal job, and then was coming here and it was affecting his training and he wasn't performing well. So, he quit his job to focus on this. And is just doing part time work so that he can focus on this and try and help push on. Then on the other hand, you've got boys that are contemplating just packing this in because they're a point in their life where it's like... I'm earning loads of money from working. This isn't really paying me much. What's the point?

PhD Researcher

And it's that kind of the balance of enjoyment cost, like waying it up, isn't it like, are you enjoying it as much and it's costing you?

Participant 3

Yeah. They are working 9 until 5, then coming straight here after work, not finishing training until half nine, going home having to eat dinner. You're not switching off to the about midnight and then having to get up and go to work the next day. Like for some boys, they're going be like... is this realistic? What am I doing?

PhD Researcher

It's really funny that you say that because that is. It is how those external factors drive you, more so than...

Participant 3

Yeah. How do you, how do you motivate someone like to... because yeah, it's a bit of a sad thing that ultimately the money will be the deciding factor.

PhD Researcher

Yeah, that's life, though, isn't it?

Participant 3

And a lot of boys here that we had last year, they are young lads probably like 23/ 24, but have just gone... we can probably earn that same as what we do here, by going and playing National 1/National 2 and being a leader in that squad and enjoying their rugby. Whereas, here we're not at the top, we're not winning every week, not getting paid a lot to do it they kind of got different... What is going to work for life really?

PhD Researcher

Just picking up on something you just said that. So, do you think the link between National One and the Championship is a better link than the Championship and the Premiership? And what I mean by that is... it's probably a bit more open, so the teams coming up and down change a little bit or you're on like a similar ballpark in terms of like payments or the risk versus reward, do you think that's closer between the Championship and National One

Participant 3

Yeah, I.... the money is obviously similar. I think you can pick up a decent pay check in National one. Like it's not uncommon knowledge to know that you can go to some National One clubs and get decent amount of cash because they just have got decent backing. But the one thing that I picked up on what you said is that it's kind of... that sacrifice of what you're doing.

I spoke to my friend who left last year and he's now National One club and he was like everything's, just a bit more relaxed. It's not as intense. And its like... do you want to be in

that intense environment, giving up them sacrifices? are we here to compete and try and like survive in the Championship. Or do you think about yourself and just go and play a bit more relaxed and be for the same amount of money? It's funny. Yeah. I guess it all depends on your individual motivators and what your what your goals are.

PhD Researcher

That's really interesting. It's not something that I had considered, so it will be really, really interesting to see where that goes in the future.... Final question then... and it won't impact you directly, I suppose maybe a little bit. So, there's been a league restructure for the twenty 22/23 season. Do you think that affects the Championship? I know it affects the lower leagues more, but there is an additional team coming in to the Championship.

Participant 3

So we've got another team in our league, but I'm pretty certain there still no relegation next year.

PhD Researcher

OK. So yeah, so the champ is trying to go from 12 teams to 14.

Participant 3

Yeah. So, again, it depends on the team. Like I, I wouldn't say we're in a position... I would say we are in a better position than we were last year, 100% going into this season. But are we in a position where we say we're happy with the fact that we know we can compete at the top? probably not. But, I think we're pretty comfortable in the fact that there is no relegation so, if it goes wrong, it goes wrong.

So, it's kind of like a bit of a stagnant league and I think it, it did pay its factors in to kind of the season last year. I think we have one win on the road, right... Those conversations on the bus are well don't matter, there's no relegation. Yeah, you can kind of brush it off in a way which I guess takes away from that competitive factor that you're talking about. And

it's kind of a weird one, because, obviously you never want to be bottom [of the league]. There's the counter for it. Like, there's your obvious motivator.

It's also quite taxing, putting on my players head going to 14 teams is a long season. It's a long, long time. Boys struggle through the January and February period... it is not a nice time to be playing rugby and soon, when you realise that you've got like 18 more weeks to go. It's long. It's a long journey and the fact that they want make it more is like it's crazy. And then you've got the cup that's come *in* season now. So, the cups gone in the middle.

Which is good for boys that say, aren't [playing regularly each week]. I think what they've done there is a really good thing. The cup gives you that opportunity to put your best foot forward and it also will give boys a rest... With the season being longer now and going up to 14 teams eventually, it kind of gives those players they're playing week in week out of rest midway through the season, which I think is really good and probably the smartest thing they've done in about 2 years.

PhD Researcher

That's really interesting. You've said that because that links to some stuff that, like the Premiership, having break weekends or like when international players go away, try and bring through some of their other players, almost in that kind of cup format, in the same sense that the Premiership have their international fixtures and they go and play them, stuff like that. So that's really interesting.

A wider note to finish on then, and it can be Premiership, Championship, National One, across the board, rugby as a whole, where you think the game is heading over the next five years or potentially where does it need to head in your opinion?

Participant 3

Where it needs to have it for me is the Championship clubs need to gain their identity back. The way it is going is the Championship clubs are going to completely lose their identities. I think you will see *us* basically becoming Premiership 'A' team. Each club will basically have a premiership feeder and will just become the place at which they'll B team play and their

youngsters play and that's the way it's going to go. It's one of them. Money is a big thing. The Premiership clubs have got the money to keep us alive and well. They will use us for what they need basically.

PhD Researcher

That's really interesting. It almost debates the question of whether rugby just needs to start again. Wherever the past 25 years have taken rugby, we are in a bit of an unknown and it's not really working so do we just start over again?

Participant 3

But yeah, it's not where I'd like it to be in [5 years]. I don't think it's where a lot of Championship fans would like it to be, but it seems to be what is happening.