The impact of public funding on Olympic performance and mass participation in Great Britain

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Elite Sport Development

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Abstract

There is a rising tendency among countries to prioritise some sports over others and make higher investments of money and resources in their elite development (Green and Oakley, 2001). Such policies and strategies are adopted in the UK, too. Some sports are considered more likely to bring Olympic medals than others and therefore, they are targeted to receive higher funding. Those placed outside the selection are more likely to face challenges in practices to develop their winning potential. Following further research in this occurrence, authors have sought evidences for an inter-relation between funding and performance (Garrett, 2004; Green, 2005; De Bosscher, et.al 2006). In addition, some have explored other influential factors and have stressed on the importance of participation in sport, as the quality and quantity of the talent pool plays a vital role in elite athletes' development (Sam, 2012; Girginov and Hills, 2008; Shibli, 2012). As a result of an in-depth research, an extensive academic knowledge on Elite Sports policies and sport development has been built, as well as on each of the concepts of funding, performance and participation. There are many studies focused on the case of the UK in particular (Houlihan, 2004; Green, 2006). However, fewer authors have studied these concepts in pairs (mainly funding and performance), and none have examined the relationship and impacts of all three (Grix and Phillpots, 2011; Vayens, et.al 2009; Martindale, et.al 2007). This research will aim to establish if such relationship exists between Olympic sports funding distribution, Olympic performance, and national participation numbers. It will provide a critical review of the British sport system and relevant policies, and it will explore where the written policies do not reflect the relevant actions undertaken. Using mixed methods the impacts of the applied policies will be critically discussed. The gap this study aims to fulfil will contribute to the existing knowledge on elite sport development by providing a better understanding on how funding, performance and participation are related and the impacts some taken-for-granted assumptions have caused.

Key words: Olympic/Paralympic; Success; Elite Sport Development; Policies; Target Funding; Distribution; Utilisation; Performance; Participation; Relationship; Impact; Expectations; Great Britain.

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List of Abbreviations

BOA – British Olympic Association

CE – Council of Europe

DCMS – Department for Culture Media and Sport

DNH – Department of National Heritage

GDP – Gross Domestic Product

IF – International Federation

IOC – International Olympic Committee

NAO – National Audit Office

NGB – National Governing Body

ODI – Office for Disability Issues

OGs – Olympic Games

SE – Sport England

SNGB – Sport National Governing Body

SO – Sport Organisation

SPSS – Statistical Package for Social Sciences

UKS – UK Sport

WCP – World Class Programme

WSP – Whole Sport Plan

CHAPTER 1 – Introduction

The purpose of this chapter is to introduce the reader to the concept of elite sport development in Great Britain, as well as to help understand the organisation of the British sport system. The chapter is structured into several sub-sections providing essential background knowledge and stressing on the relevance of the topic of this thesis to the development of British elite sport. It concludes by addressing the central research question and its aims and objectives, which are to be answered in the coming chapters.

According to Green and Houlihan (2005), elite sport development has become a key component in countries' sport systems. National governing bodies continuously invest money and resources in developing effective sporting structures to recognise and support future talents and current elite athletes (Martindale, et.al, 2007). Effective funding utilisation systems increase winning chances and the potential for achieving medal targets at international sporting events, with the Olympic Games being the most prestigious one (Hassan, 2012; in Trenberth and Hassan, 2012).

Understanding the UK sport policies concerned with elite sport development enables for a better overview of the factors influencing and shaping it as a concept (Grix and Phillpots, 2011). According to De Bosscher (2006), the relationship between sport funding policies and international sporting success is evident, but unclear, and more clarification is needed. There is a continuous need for analysis and improvement of sport systems and policies to optimize chances for success (Shibli, 2012). Based on Green (2004) and De Bosscher et.al (2008) it could be suggested that with a rising sport competition, the British Elite funding system needs to be continuously revised with the aim to optimise the support of elite athletes in more sports with potential to win medals. This could also lead to increase in competitiveness and dominance across a wider range of sports, as well as it could help to minimise the threat for the nation to be surpassed by its rivals (Duffy et.al, 2006).

Background

The Department for Culture, Media and Sport (DCMS) states that in the UK, sports are run by either a National Governing Body (NGB) or a professional league (DCMS, 2013). It is in their responsibilities to develop the rules and regulations, to support the advancement of talented athletes, as well as to promote the particular sport and organise major events (DCMS, 2013). For the purpose of this study, the relevant operations of the DCMS, UK Sport and Sport England will be critically analysed.

It is part of Sport England's responsibilities to develop sport in the country at the grassroots level (e.g. increase participation in sport and physical activity), as well as to contribute to identifying sporting potential and building effective pathways for progression to the elite sporting level (Sport England, 2008, in Grix and Phillpots, 2011). To achieve this, Sport England operates with the help of public funding from the National Lottery and Exchequer. Between 2012 and 2017 this funding has been estimated at approximately £1 billion, and the indicated time period includes the end of the London Olympic Cycle and the entire Rio Olympic Cycle (Sport England, 2013).

In order to fulfil its targets, UK Sport's strategies and responsibilities are also related to the distribution of public funds from the National Lottery (Garrett, 2004) and Exchequer to high performance British elite athletes and their respective Olympic sports. UK Sport is also focused on maximising chances for success for both Olympic and Paralympic athletes by working with NGBs to "*provide everything they need from world-class coaches to cutting edge research and innovation, talent identification and Performance Lifestyle support*" (UK Sport, 2013). UK Sport has a clear sphere of activity in the governance and development of elite sports, and no direct influence on school and community sports. Investments are targeted in the sports, most likely to win medals on a global level. In addition, the World Class Performance Program has been introduced, covering three particular levels of elite athletes' development (UK Sport, 2012). The Talent level is designed to identify athletes with potential to progress to the top levels of sport and compete at international level. The Development stage focuses on athletes with evidence of successful performance, which also have realistic winning capabilities, including in newly-

funded sports with competitive abilities. The Podium stage is to support those athletes with realistic medal potential who are no longer than four years away from achieving it (e.g. on the build-up to the next Olympic or Paralympic Games). With the aim to "*create a stronger, more sustainable high performance system*" for sport (DCMS, 2013), since 2006 UK Sport took responsibility for the whole Performance funding, including sport science and medicine. Until that point it has been in Podium funding only, and not to Talent and Development (UK Sport, 2013).

Although with a focus on team sports, Hassan (2012) in Trenberth and Hassan (2012), has made a relevant statement that sporting success and achievements depend not only on the size of the financial resources, but also on their effective distribution and utilisation. With this in mind, challenges arise as some Sport National Governing Bodies (SNGBs) have raised their concerns with the allocation of the funding and its distribution by sports - e.g. funding for basketball and volleyball has been closely reviewed following cuts-based appeals towards the Rio Olympics, (BBC, 2013).

Rationale

The focus of this research has been on the Elite/Olympic sport funding system in Great Britain and its impacts on performance and participation. In recent years there has been an increasing rivalry among elite athletes and a rising number of nations taking part in high calibre sporting events, such as the Olympic Games, as they venture to win medals and achieve higher sporting recognition (Shibli, 2012). Along with the growing importance of success in international sport, the industry has also seen an increase in financial investments in sports through variety of sources (e.g. public funding, private sector funding, sponsorship, advertising, tourism). It could be suggested that those nations, which invest largely in sport, tend to dominate medal rankings across a wider number of sports, while countries with smaller sport funding tend to invest their resources in considerably smaller selection of sports, consequently placing them further away from the top of the rankings due to the smaller scale of medals to be won. Examples could be given with Russia, China and USA competing at the top of the overall Olympic rankings (IOC Statistics of Medal Rankings by Countries, 2013) and countries like Kenya and Jamaica, which dominate in a

single Olympic sport or a small selection of few (e.g. in athletics - long-distance running and sprints respectively).

The parallel growth of sport funding, improving performance and increasing sport rivalry has led to an assumption that 'more money in bring more medals out', further suggesting for a relationship between funding and performance. Consequently, this assumption has acted as the ground for further research in the area. Academics and professionals have contributed to the body of knowledge by studying relevant concepts, the most commonly studied being funding, performance and development at the different levels of sport. The works of Green (2004; 2005; 2006), Oakley and Green (2001) and Green and Houlihan (2004) explore nation's sport systems – comparing the policies and structures different countries apply to determine sporting excellence and recognition. Their main analyses stress on the governance and organisation of sport and the increasing importance of elite sport development. In this case study, elite sport funding has been measured by the monetary sums allocated to British Olympic sports by UK Sport. To clarify, this research aims to critically analyse UK Sport's funding distribution – e.g. how the different amounts have been set, how sports' performance has been measured in relation, the realistic effectiveness of the funding distribution and the practical impacts of these decisions. Although the importance of funding utilisation has been acknowledged, it has not been followed here as this is a responsibility of each sport NGB and following it would extend beyond the scope of this research.

More concerned with the concept of performance and success in sport are authors like Sam (2012), De Bosscher, et.al (2006; 2008) and Shibli (2008; 2012), who investigate the factors influencing international sporting success. Based on some of these studies and other relevant research, it is of interest to be acknowledged that while there are many factors influencing success and performance in sport, there is probably no single definition to fully cover these concepts (De Bosscher, et.al, 2006). Successful performance could be seen as a subject dependant on variable factors. While the importance and influence of other factors on successful performance have not been discarded and limitations of the chosen approach have been acknowledged, for the purpose and aims of this study defining the concept in

terms of number of Olympic medals targeted/won has been considered most relevant. In this way the variable takes a numerical quantifiable form, also suitable for statistical analysis. Measuring performance as a variable defined by number of medals won has also been considered reliable for this case study. The different IOC rankings all measure Olympic success of athletes, countries and sports by the number of medals won (IOC, 2013). In the case explored here – that of the UK, Olympic medal targets and numbers of medals won play a vital defining role in Elite/Olympic funding distribution. UK Sport sets medal targets to be achieved by sports and athletes at the respective Olympic Games and this has been seen to determine the utilisation of funding investments as good or bad (UK Sport's No Compromise strategy, 2010).

The concept of participation has also been previously analysed although often separately from funding and performance. The analyses undertaken show a perspective not previously explored, as while the importance of participation in grassroots sports development has been recognised (Charlton, 2010; Girginov and Hills, 2008; 2009), its link with elite sport has been not so widely researched. In this research participation as a concept will be analysed together with funding and performance. In order to be included in statistical analyses, participation numbers have been taken from the Active People Survey, considered the most accurate tool for measuring sport participation in the UK (Sport England, 2013).

While sport systems and funding related policies, as well as performance and success in elite sports, are between the most commonly studied concepts related with sport, it is their relationship and inter-dependence, which have not yet been thoroughly researched. Some authors who have studied the link between policies, funding and performance are Garrett (2004) and Grix and Carmichael (2012). And Vayens, et.al (2009) and Sam (2012) raise concerns in regards to the negative impacts of target funding in selected sports, preventing others to determine their success. Nevertheless, this occurrence leads to a gap in the current knowledge on elite sport development, and it is in the intention of this thesis to fulfil this gap by providing a critical analysis of the impacts funding related decisions have on elite sport development in Britain, and namely on Olympic performance and national participation numbers in Olympic and Paralympic sports. In addition to studying the

relationship between funding, performance and participation, this thesis aims to further explore the statement that more money in bring more medals out, claiming that it should not be taken for granted unless it could be applied to the predominance of sports.

For many, the British are '*a sporting nation'* (The Telegraph, 2010). The immense amount of resources and money invested in sport support that image (e.g. approximately £264 million towards the London 2012 Games and an even higher figure towards the Rio 2016 Olympics). This thesis presents evidence that despite of this vast amount of funding in British Olympic sports, a high proportion of the funds have continuously been allocated to a rather small selection of the same Olympic sports since the Olympics of the Millennium (Sydney 2000). The distribution of the funding has been questioned as it has been argued to what extent this small selection represents the most successful British Olympic sports.

Despite of critically analysing current sport policies and highlighting limitations to be overcome in the British sport system, this research does not reject the tremendous success of Team GB at recent Olympiads, including in the London 2012 Olympic and Paralympic Games. However, the return of continuous investment in Olympic sports may not be delivered within a single Olympic cycle. The short-term success should not blindfold the respective sport organisations in their efforts to maintain and extend Great Britain's achievements in the long-term. The advantages of the effective sport system extend beyond bringing national pride and international recognition to the nation and hold political, economic, social and sporting benefits. The knowledge derived by answering the central research question and meeting its aims and objectives could play a vital role in future efforts to grow and sustain the success of Britain in Olympic and Paralympic sports.

Research Question

- What is the relationship between funding, performance and participation in British elite sports?

Aims and Objectives

- To define key concepts of elite sport development for the purpose of this thesis - elite sport funding, Olympic performance and mass participation.
    - Explore existing research and the knowledge derived on the three concepts in order to provide a better understanding of how they have been defined and then measured.
    - Referring to the literature, study changes in the British sporting system and the impacts of the occurred changes on funding, performance and participation, as well as on grassroots and elite sport development.
    - Explore evidences of relationship between the three concepts.
- To look at changes in funding, performance and participation in British Olympic sports within a defined time period.
    - Develop a database of UK Sport funding of British Olympic sports since the Millennium Olympiad (after the 1996 Olympics the need for a more stable elite sporting system in British sports was recognised) to the London 2012 and Rio 2016 Olympics.
    - Using the database, conduct a critical sport analysis of, looking at changes in funding, performance and participation numbers.
    - Further explore the relationship between the three concepts, with the help of statistical tests.
- To critically analyse policies related to elite and grassroots sports development in Great Britain.
    - Follow changes in grassroots and elite sport development policies in the period from the Sydney 2000 Olympic Games to the London 2012 and the Rio 2016 Games, critically analysing the written policies and the actions undertaken.
    - Taking into account the outcomes of the carried research and statistical analysis, study the impacts of relevant policies and decisions made, their practical application and objectivity.

CHAPTER 2 – Literature Review

It is in the purpose of this chapter to review and critically discuss existing academic research on Elite sport development in Great Britain and the relevant concepts of public funding, Olympic performance and national sport participation numbers. An extensive literature review will contribute to a better understanding of each of the concepts. Gaps in the field of academic knowledge will be highlighted and discussed. With the help of the existing theory a critical discussion on the British sport system will be conducted, aiming to contribute to a better understanding of relevant sport policies, to bring clarity in the management decisions made (Sam, 2012), and to examine the impacts of these decisions on the different Olympic and Paralympic sports in Britain.

According to Arnold, et.al (2012), the phenomenon of the Olympic Games has advanced many countries' elite athletes and sports. Olympic achievements are considered as the peak point of sporting careers. According to the International Olympic Committee the Olympic medals tables are not an order of merit (Heinila, 1982, in De Knop et.al 2006). However, for many nations they are a unique opportunity not only to take part and reveal their talents (Xu, 2006), but to assess their elite sport structures and policies (De Bosscher, et.al, 2011). As a consequence, competition between countries sport's systems has emerged (Heinila, 1982, in De Knop, et.al 2006), and despite many challenges, the governing bodies for sport in Olympic countries continue to heavily invest in (targeted) sports (Arnold, et.al 2012). These investments typically focus on adopting a strategic and systematic approach in regards to the development and preparation of elite athletes (De Bosscher, et.al, 2008).

The advantages of Olympic success, e.g. improving the sporting image of the nation, political recognition, economic and social benefits, all lead to an increased importance paid to winning higher numbers of Olympic medals (Girginov, 2009). Governments today tend to get directly involved in Elite sport policies, and monitor Elite sport governance and development more than before (Green, 2006). In some instances, governments could demand changes in the sporting systems of National Governing Bodies and Sport Organisations (e.g. introducing talent identification programmes), while at the same time

requiring these institutions to encounter the government's objectives (e.g. increasing participation), (Green, 2005).

Recognizing the need for a nation to succeed at Olympic Games, many authors also continuously analyse different sport policy factors leading to better sporting performance, strengthening the sporting image of a country, raising interest and participation in sports, and consequently achieving Olympic success (a full literature matrix could be found in Appendix 1). De Bosscher and colleagues (2006) classify some previously studied factors as the nine pillars influencing elite sporting success. These being financial support, training facilities, integrated approach to policy development, national and international competitions, coaching provision and coach development, foundation and participation, talent identification and development system, athletic and post-career support, and scientific research (De Bosscher, et.al, 2006).

These nations, which take into consideration the above factors, tend to better improve their sport systems and performance (Shibli, et.al, 2012). However, the differences in opinions, findings, and probably the subjectivity and individuality of the matter, suggest that there is no clear definition of the concept or a research exclusively summarizing all the factors influencing Olympic success and performance (Baker, et.al, 2003). For example, even though the authors do not discard the above mentioned factors, Fletcher and Wagstaff (2009) argued that De Bosscher's (2006) structured factors alone cannot guarantee international success. Furthermore, to sustain and optimize the beneficial outcomes they state that "initiatives need to be inspirationally led, effectively managed and competently executed" (Fletcher and Wagstaff, 2009). It is important for National Sport Organisations to build and develop effective and objective elite sport policies, as well as to efficiently address and overcome issues, in order to maximize positive outcomes and minimize the threat of overspending resources (Arnold, et.al 2012). De Bosscher et.al (2008) makes a similar argument stating that to optimize results, policy-makers need to observe and establish how their specific structures could potentially expand the positive outcomes. A particularly relevant assumption is that sport policies have an influence on Olympic/International sporting success (Shibli et.al 2006), as they are the output of the

process, but it is the way in which such systems are led and managed that is the key to success, as they form the input and throughput stages (De Bosscher et al., 2008).

A historical review of the UK Sport (Funding) System

In a study by of Grix and Phillpots (2011), the authors discuss a period of 'modernisation', which has been introduced by the Labour Government. The authors state that this 'modernisation' applies to the introduction of network governance in the UK. The aims and intentions of this network are to help public services, including the sport sector, to better reflect and meet people's expectations (Sanderson, 2002, in Grix and Phillpots, 2011). A decade earlier, based on work by Houlihan (1991; 1997), Oakley and Green (2001) encounter a similar finding, stating that there is an occurrence of 'fragmentation' in the institutions dealing with (sport) policies in the UK. In the case of the sport sector, a particularly hierarchical structure is evident, as at least on the surface, the Government Department for Culture, Media and Sport holds the most power and control (Grix and Phillpots, 2011). It was established in 1992 as the Department of National Heritage, and was later renamed by the Labour Government, in 1997, to its current name (Green, 2005).

The network model, suggested by Grix and Phillpots (2011) also includes other sport organisations, which are given a considerably high degree of central control on sport policies, and how they implement their strategies. This structure could also lead to de-centralisation, loss of focus or unrealistic target setting (Bevir and Rhodes, 2008; Bevir and Richards, 2009; in Grix and Phillpots, 2011). Such sport organisations are UK Sport and Sport England. According to Oakley and Green (2001), both organisations operate at an 'arm's length'.

Understanding the different ways in which sport policies in the UK have evolved and changed over time is an important point to be considered, as the evolvement of institutionalised parties has continuously been shaping the outline for British sports (Green, 2006). Over the last 10-15 years, there has been a continuous and increasing interest in evaluating and comparing countries' sport systems (Houlihan, 2012). Taking into account their importance, the need of successful sport policies, research and analyses in the field,

could make a contribution by defining concepts, investigating systems and drawing valid conclusions (Houlihan, 2012). As stated previously, this research is also looking at the complex sport policies' (Grix and Phillpots, 2011), as well as at the input-implementation-output processes of these structures and their significance (Houlihan, 2012) in regards to British Elite/Olympic athletes, their respective sports, and the concepts of funding, performance, and participation.

In a study conducted in 2005, Green states that policy priorities in the UK aimed at structuring and co-ordinating a successful framework and strategies to support Elite/Olympic athletes seem to be traditionally more indefinite compared with other countries which have adopted to some extent similar sporting systems, such as Australia and Canada (Green, 2005). On the other hand, according to Houlihan (2012), there is actually a convergence in sport systems between some countries. A much earlier study by Green and Oakley (2001), has examined the former Soviet Union strategies to developing elite sporting excellence, as well as it has investigated whether indications of that system are evident in some European countries, including the UK, and in North America, Canada and Australia (Green and Oakley, 2001). It has been in the authors intentions to explore whether a trend to standardization is present across the selected different countries or there is sufficient room for diversification. Overall, their analyses demonstrate that in the development of Elite sport policies and structures in Western countries, including the UK, there are increasingly apparent evidences of the former Eastern Bloc systems or a trend towards standardization and 'fading contrasts'. Such evidences could be traced in the case of the UK elite sport strategies (Green and Oakley, 2001), together with sufficient basis for diversity, also termed as 'accommodating varieties' (e.g. the differing European and North American sport models), (Green and Oakley, 2001).

In the UK, the Department for Culture, Media and Sport seems to recognise the benefits in learning from competitors in order to enhance professional systems for talent identification and development, preparation and support in achieving sporting excellence. According to the DCMS (2000) British Olympic sporting excellence and successful

performance can only be achieved through consistent and sustained adequate funding and support (stated in Oakley and Green, 2001).

The contrasting success at the Sydney 2000 Olympics in comparison with the noticeable decline in performance at the previous Olympics of Atlanta 1996 made it evident how government interference and increased financial support, including investments in modern technologies, could lead to considerable improvements in performance (De Bosscher, et.al, 2006; Green and Oakley, 2001). It has also demonstrated an increasing interest by the government in developing Elite athletes and winning more medals at Olympic Games, as well as the sporting and non-sport benefits of such achievements (Hays, 2009).

In the case of the UK, developing a centralised system for selection, training and preparation of elite athletes to represent the country at the Olympic Games was in fact advantageous and beneficial (Oakley and Green, 2001). However, there is a tendency among different countries, including Great Britain, to identify several Olympic sports and target funding and resources towards their development with the intention to increase the likelihood for success and winning. Even though there could be a positive outcome in terms of British Olympic success, some internal and external limitations arise, with potential long-term impact, and they need to be identified and overcome (Green and Oakley, 2001).

In relation, it is also worth noting that since the Olympics of the Millennium the top three nations in the Olympic medal standings have been the politically and economically dominant countries of China, Russia and the USA, with the exception of the London 2012 Olympics, where Great Britain finished in third place (after the USA and China), followed by Russia in 4th (London2012, 2013). In the rankings, countries are not only listed according to the total number of medals won at the particular Olympics, but also according to the number of Gold Medals achieved (IOC, 2013). Russia has been placed in 4th place with 24 gold medals, but still achieving a total of 82, compared to Great Britain with 29 gold and 65 medals in total (London2012, 2013). Even though such success has indeed been highly valued for the British, by further considering the medal counts, evaluating and comparing sport-by-sport performance some issues appear with influence on Olympic sports in the UK.

Green and Houlihan (2004) state that in the UK setting the emphasis on the importance of developing systems to support elite level athletes could be evident since the 1990s. The main sports of their analysis being athletics and swimming, have given the opportunity to follow the organization and development of two of the most funded British Olympic sports at the time their research has taken place – athletics and swimming. Two main characteristics define the change of emphasis and the consequent introduction of policy frameworks. The first one is the emergence of a systematic approach in Elite sports funding from establishing the National Lottery as a source of financial support (Collins, 2010). Moreover, until its introduction, for the majority of elite athletes, funding was random and infrequent, unless they were either exceptionally talented or have already proven themselves capable of winning at the highest level (Green, 2006). Support from families, working part-time, actively seeking and relying on sponsorship, were common aspects of elite athletes' development (Green and Houlihan, 2005). The second key characteristic discussed by the authors is the publication of government reports on sport policies (e.g. the published in 1995 Department of National Heritage's *'Sport - Raising the Game'* and the Department of Culture, Media and Sport's 2000 reports *'Sporting Future for All'*), which were considered as evidences indicating shifts in the UK sporting system, and a growing government involvement in sport policies (Green and Houlihan, 2004).

While Green and Houlihan's (2004) research is based on the period from 2000 to 2004, the outcomes of their work analyse some significant changes and implications in sport policies in the UK that have shaped today's elite sport structures. According to Green and Houlihan (2004) and Oakley and Green (2001) in order to better understand sport policy changes, those have to be followed in a period of over a decade. To further support this statement Bloyce et.al (2008) states that in fact the organisation of British sports has undergone significant changes towards the end of the 20th century. While some of them could not simply be traced their impact is evident in today's sport policies and strategies (Bloyce, et.al, 2008).

Overall, Green and Houlihan (2004) state that the structure of elite sports in British athletics and swimming is centred on supporting elite athletes and initiatives serve to

support the development of the elite level. However, concerns are raised in regards to the legitimacy of outcomes towards which policy changes are increasingly directed, primarily – the increased investments to expand the potential for Olympic (gold) medals (Green and Houlihan, 2004). Over the time period explored by the authors, there have been shifts on policy emphasis (Oakley and Green, 2001), focusing on the ultimate goal of improving and sustaining a medal-winning performance at the Olympic Games. In his work Green (2005) discussed two particular factors, defined as central to the changing policy priorities and emphasis on elite sport: one of them being the importance of funding, and the other – the consequently developed resource dependency (Green, 2005).

Sport is considered to be a particularly important sphere that could benefit from the National Lottery funding (Hallmann, et.al. 2012). And the significance of the monetary subsidies should not be underestimated as it could increase the opportunities to develop a more systematic approach in supporting the UK's elite athletes (Green, 2005). For example, on the build-up to the 2012 London Olympics, £264 143 753 have been invested in Olympic sports, compared to £58 900 000 spent towards the Sydney 2000 Games (UK Sport, 2013). Together with the amount of funding, number of medals has also increased – from 28 in Sydney to 65 in London (IOC, 2013). Based on these outcomes, it becomes evident that Olympic sports become more and more dependent on public funding and resources in order to develop and prepare talented athletes and increase chances for success at the Olympic Games. Further in his work, Green points out a statement by the DCMS (2000) that *''the success and/or failure in achieving milestones and targets in performance plans will be an important factor in deciding future levels of funding [for NGBs and Olympic sports]''* (DCMS, 2000, in Green, 2005). This statement suggest for a reverse approach, where it is funding being dependant on performance.

All in all, the development of excellence is a main objective in sport policies, as well as improving the British image in the international sporting arena, and it is further seen as the only outcome of participation and commitment (Green, 2005). However, the objectivity of the funding systems could be questioned (Green and Houlihan, 2004). As Green (2006) argues, with the increased support, opportunities have opened up for those sports,

dominating the funding tables, and consequently, the further away from the top of the list, the more constraints for support and development that arise.

The emergence of the elite sport level framework has impacted on the whole of the UK and the identification and development of young 'talents' is an essential element of the elite sport framework (Green, 2004). From Oakley and Green (2001) it could also be concluded that the funding programs below the elite level should not be underestimated or classed as 'peripheral' as athletes at the development levels are on 'a pathway to the podium'. Their aim is to reach higher levels of competition (e.g. participation in the Olympics), (Green, 2004). Young athletes also increase the country's winning potential and therefore the construction of such pathways through which potential athletes can progress and develop is essential (Bloyce, et.al, 2008; Green and Houlihan, 2004). To better understand the elite sport framework, Green (2004) has defined it through four closely inter-related components contributing to its development: foundation and participation, together with performance and excellence. By providing this rather more systematic structure of the framework, the directions and scope of work could be better analysed and understood (Green, 2004).

Even though according to Houlihan (2004), common features could be found in the policy reports published by the Labour and Conservative parties (e.g. Sporting Future for All, 2000, and Sport: Raising the Game, 2002), a further and more rapid shift in sport strategies in the UK emerges from the switch between the Conservative and Labour Governments (Oakley and Green, 2001), as well as from the increased government influence on sport, and the resulting change of sport ministers. Green (2004) states that for a certain period of time government publications and policies demonstrate a focus on mass participation and the improvement of physical engagement among the British. In a later research the same author shapes a marginally contradicting argument that in fact the focus has shifted from 'Sport for All' policies towards somewhere between generally increasing participation numbers and developing the elite sport level (Green, 2006; Grix and Phillpots, 2011). Collins (2010) has suggested to some extent a comparable statement that for a certain short period of time the focus on sport seems to drift from the elite level to improving physical activity and health of the British population by increasing participation.

And, as Grix and Phillpots (2011) state, it wasn't until London was awarded the bid to host the 2012 Olympic Games that led to another change in UK Sport policies – recognising the significant benefits of elite sport development on successful Olympic performance, and suggesting for greater importance to be paid to sport participation.

Before that time, authors like Green (2004) and Oakley and Green (2001), in their work evaluate the changing configurations in the British sport system in the last years on the build-up to the millennium, and look at the increased reliance on Lottery funding to support talented athletes and develop initiatives at the elite/Olympic sport level. Based on a previous research by Houlihan (1991; 1997), the authors suggest that access to resources and power of influence are keys in defining policies to be implemented, as well as they separate major and minor sports in Great Britain (Green and Oakley, 2001). Applied to the current organization of the increased targeting of elite sports in the country those two factors seem to also distinguish those sports set to receive more funding than others (Houlihan, 2000) and potentially increase the likelihood to achieve Olympic success. Green and Oakley (2001) define this occurrence as 'selective re-investment'. It is a matter, which has been critically discussed throughout the thesis. In addition, the same authors raise a concern by Evans (1995) that funding from the National Lottery has been distributed subjectively and it has signified 'the poor giving to the rich' (Oakley and Green, 2001). While Evans' (1995) opinion is in regards to the people who spend money to play the Lottery, based on the analysis of this study, to an extent the same could be addressed to the pattern of increased targeting and prioritisation in elite Olympic sports in the UK (Oakley and Green, 2001).

Between the most appealing evidences of government willingness to develop the sporting potential of the British nation is the foundation of UK Sport (1997) with the objectives to monitor and support elite athletes' development (across the established three levels of Elite sport - Talent, Development and Podium), as well as to responsibly distribute the Lottery funds (Green, 2004). Nonetheless, the institution has not escaped the period of disagreement and confusion in regards to its functions and exact purpose (Theodoraki, 1999, in Green, 2004).

The context of sport development has been divided in four key aspects – grassroots participation, high-performance sport, hosting sport events, and the delivery of effective operational strategies (DCMS Game Plan, 2002). All of them in need of objective and sufficient funding to achieve satisfactory results (Girginov, 2008). Identifying the importance of each suggests for a major drift in the sporting structure of the UK, as it has been recognized that medal numbers are a result of the introduction of a more strategic sporting system (Green, 2004). Overall, the study itself points out that there has been a clear emphasis placed on the importance of sport, as an instrument for improving the sporting image of the country (e.g. through successful Olympic performance), increasing physical activity and participation in sport, improving health, and even recognizing sport's educational benefits (DCMS, 2002). These contrasting conclusions have put forward some potential implications for sport development, such as its promotion and funding, and the DCMS' challenging goals to turn the UK into the most successful sporting nation, as well as to boost once-a-week participation by 2020 from approximately 33% in 2002-2003 to around 70% (Green, 2004). Further to this target, in 2002, UK Sport has stated that "*winning medals is as important as people taking part in sports*".

Houlihan (2000), cited in Green (2004), has advised that even though some evidence of commitment from the government towards developing and implementing effective sport policies are present (e.g. the establishment of UK Sport in the late 20th century), there are greater issues to be addressed and overcome in regards to elite sport policies. Public investment in British elite sports has its consequences, as adding to a statement by Shibli (2012) it leads to an increased scrutiny and accountability of the utilization of this public funding, and expectations for higher results to justify the heavy amounts invested in a small selection of sports and athletes. Emerging challenges should not simply be left to chance, but need to be effectively overcome. Such policy related issues are central theoretical and practical tasks to be undertaken by the responsible professionals and respective institutions at the different levels of the UK sport sector (Green, 2004). Based on the work of many authors (Green and Houlihan, 2004; Oakley and Green, 2001; Houlihan, 2000) it could be evidenced that in the early years of the 21st century there have been another set of structural changes, modifications, and a constant revision of the UK Elite sport structure. These shifts

on the emphasis of sport, changing from performance and excellence to 'sport for good', have led to an increased uncertainty and loss of focus in the development of British Elite sports (Girginov, 2008). According to Green (2004), conflicting ideologies in regards to the role of sport as suggested by Green and Oakley (2001), have arisen based on recognising the political influence and/or dependence of different major structural reforms to support Olympic performance. Girginov (2008) states that there has been an emerging need for an effective balance between elite and grassroots sport in Britain.

Interesting to be noted is that Oakley and Green (2001) suggest a potential reason for the UK government sport authorities to be willing to invest and focus on elite sport performance, leading to a funding increase. Such has emerged from the successful performance of the British athletes at the Sydney 2000 Olympics reflecting on hopes to compensate for the under-performance at the Olympic Games of Atlanta 1996. Furthermore, in the past 8 to 10 Olympic Games before Sydney'00 the majority of GB's medals (approximately 80%) have come from only 6 sports of more than 25 in total (Oakley and Green, 2001): Athletics; Equestrian; Judo; Rowing; Sailing; and Swimming.

"*Certainly, it is likely in elite sports that there will be increased targeting of resources to Olympic sports that achieve their funding goals (i.e. Olympic medals). … This can certainly be termed 'selective investment' and the historically most successful ones (athletics, equestrian, judo, rowing, sailing and swimming) are likely to receive the majority of funds (if they continue to achieve results).*"

(Oakley and Green, 2001 p.91)

This is a particularly important argument discussing why some sports have been targeted for higher investment than others, and how this favouritism is still influencing today's funding figures, and even implicating the objectivity of sport policies and systems. Later in this research it will be highlighted that in reality, even though considered successful it is not those same sports in the UK that 'share' most of the Elite funding. In addition to this argument, it will be analysed how performance and participation of the above mentioned sports responds to funding distribution as some seem to succeed and even outperform with

less funding, while others, with evidently higher funding figures, may reach medal targets, but do not meet the expected level of success based on the higher investments made.

Targeted Funding in British Olympic Sports

UK Sport was established shortly after the Olympic Games of Atlanta'96, as a result of the increasing need for the UK to professionalise its sport system, if to continue to maintain successful performance in international sport (Shibli, Gratton and Bingham, 2012). Its main priority is to lead the nation to a world class sport performance and success, with the support of the National Lottery funding (UK Sport, 2013). UK Sport was given the responsibility to distribute and utilise the growing investments of the National Lottery in the elite level of British Olympic sports (Shibli, et.al, 2012).

Implementing target funding strategies (often performance based) in a selection of Olympic sports is a well-known government practice in elite sports (Sam, 2012). By implementing the target-setting approach the Government attempts to better shape and then monitor the different sport organisations dealing with policies and being dependent on the government's resources (Grix and Phillpots, 2011). In fact, sport policies and organisation in the UK at both the grassroots and elite levels demonstrate a clear form of these control strategies (Grix and Phillpots, 2011). Nevertheless, some unintended consequences appear (Sam, 2012). According to Shibli (2012) in the UK elite sports' Olympic funding is targeted at a marginal number of sports, considered to hold 'a genuine chance for success'.

Green (2006) states that it is not only British Olympic sports becoming increasingly dependent on government funding and resources, but so are the inseparably linked Olympic medal targets. Despite the suggestion for inter-dependence between funding and performance, the investments of public funds are being targeted only in a selection of sports (Sam, 2012). It could be argued to what extent this selection represents the most successful Olympic sports for the British nation, as there are many factors that can influence on successful performance (De Bosscher, et.al 2006, Fletcher and Wagstaff, 2009, Sam 2012). Furthermore, it remains unclear whether increased funding determines more medals to be won or it is between the many factors influencing successful performance. Nevertheless, in

2005, after an evaluation of the UK elite/Olympic sport system, the National Audit Office (NAO) recommended a reduction in the number of Olympic sports to be funded (NAO, 2005). Grix and Phillpots (2011), have pointed out one of UK Sport's approaches to under-performing Olympic sports, stating that those sports failing to meet targets will have their performance-based funding cut or withdrawn until a modernization and improvement has been made within their structure (UK Sport, 2008, in Grix and Phillpots, 2011). Such statements are not a single occurrence in British sport policies. Keeping in mind the reliance of elite sports on government funding, it places opportunities for development and successful Olympic performance in doubt. It seems that UK Sport's elite athletes' funding further targets a small group of sports considered more likely to deliver Olympic medals than others, while evaluating the objectivity of the targets set to be achieved by the different Olympic sports is nowhere to be found. This seriously questions the future of those Olympic sports which fall outside that small selection.

While it could be argued to what extent the increased government control over elite sport policies and funding is beneficial or not, some limitations should be acknowledged. The strict implementation of UK Sport's target funding strategies – the No Compromise approach, could lead to increased levels of government control in elite sport performance, but with no accountability for results or lack of positive results, (Shibli, 2012). However, as it is sport NGBs responsible for their funding utilisation, it will be those same NGBs to be blamed if their sports fail to meet targets and not the institution holding control over its funding and governance.

If to focus on the funding of British Olympic sports, Sam (2012) has noticed that since the Millennium UK Sport tends to invest more heavily in Podium level athletes. While this is indeed the case for the Olympic Games of Sydney 2000 and Athens 2004, some may disagree as of April 2006 UK Sport's funding was spread across all three levels of Elite sport – Talent, Development and Podium (UK Sport, 2012). By observing further the money distribution and medal targets set it has suggested that funding has still being centred on those athletes, who are already at the podium level and more funds are allocated to their respective sports (Sam, 2012).

An obvious prioritization could be seen in the way athletes are being treated reflecting the increased targeting of funding and resources for the development of a small selection of Olympic sports (Green, 2006). There have been some debates that the utilisation of Olympic sports funding should be adjusted and targeted at an even smaller selection of athletes and sports (National Audit Office, 2005; in Green, 2006).

It has been suggested that unlike the trend among nations internationally to invest more and more in their sport systems and to target Olympic sports, there are far greater benefits from the Olympic Games, and not just winning medals (Green, 2006). For example, even if no medals are won, a strong Olympic performance of the athletes from a particular nation can positively influence participation rates in their country (Green, 2006). Success in every term has its costs, and such benefits could not be achieved unless adequate and realistic measures are put in place, and funding is not only distributed, but also utilized in an optimal way. If to look at recent Olympic Games, it is difficult to see the suggested positive changes in the numbers of people taking part in sport (Green, 2006). Not denying this statement, it should also be considered that often the bigger the plans are – the longer they take to be achieved. In the case of the UK, aiming to increase medal targets, improving performance and participation on national and international level (e.g. Great Britain's goal to create a leading sport system on a world level) is not something that can be achieved in a period of 4-8 years. The capacity of the target, and the amount of changes it involves, require long time qualitatively spent on planning and implementing strategies, with the joint efforts of the government and other relevant organisations, with results to be seen as the post-effect of these strategic efforts. Such arguments create even more uncertainty in regards to targeted funding in British Olympic sports, and its optimal use. Sam (2012) has also raised three particular criticisms on the effectiveness of outcomes of implementing target funding. The validity of how performance is being measured is uncertain – the author argues that there is a tendency to account for more 'measurable', rather than 'meaningful' achievements. A dilemma has arisen as the understandings defining the relationship between target funding and performance are too general. While funding should not only be targeted to those sports considered more likely to win Olympic medals, the question is whether funding should be aimed at athletes who have already proven themselves

successful (at the Podium level) or it should be more equally spread to athletes in possession of future potential (at the Development level). Due to the results-based dependency, it could be suggested that more funding goes to Podium athletes, and less to those who are at the Development level. Furthermore, as Sam (2012) defines it: "*winners are rewarded and losers are punished*", and there is no middle position supporting those athletes or sports, who/which have come close to success or achieving their targets.

Based on outcomes of the work of Garrett (2004) and Sam (2012), it could be said that while it is difficult to measure the effectiveness of Lottery funding, the allocated amounts of funds to the different Olympic sports by both Sport England and UK Sport not only have an impact on successful athletes' performance, but are also influenced by it – (target) funding depends on performance and the successful performance itself depends on sufficient funding and its utilisation. An interesting statement has been made that monetary rewards and/or sanctions alone are not a strategy capable to fix and boost successful performance (Sam, 2012). Policies like target funding have certain limits (e.g. unreasonable investments and targets), and if reached opportunities to succeed could be worsened. In addition, athletes at the development level also have a significant impact on performance and their importance should not only be recognized, but also a more realistic investment in them and their respective sports should be made.

Even though the focus of Garrett's work (2004) is not aimed at the elite levels of sport in the UK, the outcomes of his analysis are relevant to the purpose of this study as they give evidence why investments should be better targeted. He uses voluntary sport clubs to be the example of providers of sport at the development level. According to him, the sport clubs' role is vital to the development of the UK elite sport system as given the growing strive for sporting excellence between nations they contribute significantly to improving performance and increasing participation – both of which are in the basis of sporting excellence (Garrett, 2004). This further supports the statement that sport clubs are reliant and dependent on National Governing Bodies (Garrett, 2004). The author further states that more systematic and structured strategies in the provision of participation and performance opportunities are needed and sport clubs across the country are the key to achieve it. Prepositions for change

in systems and Lottery funding utilisation are present, as they are strongly inter-linked with the government's sport policies and related objectives. In addition, voluntary sport clubs are provided with public funds through Sport England. Yet, their importance is comparably better recognised by the government on paper, and not so much in practice (Garrett, 2004). The author concluded that in the case of many sports in the UK, the adequate and effective funding is open to criticisms due to sometimes subjective targeting. It could be added that while there are efforts for improvement (Garrett, 2004), the need for long-term development strategies should be appreciated, as their successful implementation could lead to more stable benefits than those seen in the short-term.

Overall, target funding has its implications in terms of providing adequate support for consistent winning, instead of 'one-off' success (Sam, 2012). Another implication could be seen in the face of failure to give opportunities for development and success to a variety of sports, due to the increased targeting of funds and resources at a smaller selection. Target funding in Olympic sports is often based on performance (Sam, 2012), but both concepts could potentially be linked with participation numbers. While it might be difficult, if not impossible, to justify a successful utilisation of public investments in Olympic sports due to the influence of a variety of internal and external factors (De Bosscher et.al. 2011), a recommendation could be given for a more reasonable funding distribution and more realistic target setting for all Olympic sports, as well as better opportunities for athletes with potential to win Olympic medals and their respective sports (Green and Oakley, 2001) to improve and prove themselves successful. As it is concluded in Shibli, et.al (2012) *"the scale of ambition is growing higher, but success cannot be taken for granted"*.

Improving Performance in Elite Olympic Sports

Research on the concept of performance suggests it is difficult, if not impossible, to give a single definition of success and performance in sport (Green, 2006; De Bosscher, et.al 2008). For the purpose of this study, performance has been defined by the overall number of Olympic medals won by sports, as well as the number of gold, silver and bronze medals. In addition, the capability of sports to meet or exceed the set medal targets also contributes in defining their performance as successful. In regards to a potential relationship between

funding and performance, the predominance of arguments support the approach for performance based funding, and not the alternative – funding based performance (Sam, 2012). Dismissing this double-sided dependence could be seen as a potential obstacle for the successful performance of British athletes and it can lead to failure to determine sporting potential and to justify the amount of funding allocated by UK Sport.

In their work Shibli, Gratton and Bingham (2012) forecast Great Britain's performance in terms of number of medals, including number of gold medals to be won by the host nation of the London 2012 Olympics. The analysis follows the same methodology and pattern as in previous study done by Shibli and Bingham (2008) to forecast the medal performance of China in the Beijing 2008 Games. Based on their review of the UK sport policies, the authors argue that a pattern for amateurism in elite sports has had its tradition in the case of the British sport system. It wasn't until the nation was threatened to be surpassed by competitors on the international sporting arena, when an approach towards professionalism was undertaken (Shibli, Gratton, Bingham, 2012). It could be said that the low performance in Atlanta'96 acted as an endorsement for the British, even though the government had already recognised the need for change and in creating a more effective and strategic approach in elite sport (Shibli, Gratton and Bingham, 2012). According to Oakley and Green (2001), improving elite sports' performance and potentially leading to higher international success can be achieved by strategically investing in targeted Olympic sports.

In his research, Shibli (2012) states that before the 21st century early research on elite sport systems discusses the influence of a nation's GDP and population size, host advantage and past performance on its sporting capability and success. Academic research post the Millennium has also evidenced that due to the variety of factors influencing elite athletes and successful performance, the macro-economic factors alone do not necessary determine which nations are to succeed on the medal podium (Gustafsson, et.al 2010). The UK may have recognised the need to engage the country's populations in sport and physical activity for a variety of benefits, and develop sport at the grassroots level, when it comes to participation in the Olympic Games, the IOC has applied certain restrictions to the number of athletes (e.g. per sport, event or per team) that can compete in order to limit absolute

domination and promote equality (Halsey, 2009). Shibli (2012) concludes that the successful elite performance in sport is a function of the increasingly managed public investment. And authors like Hallman, et.al (2012) confirm that national sport infrastructure plays a key role in elite athletes' development.

Robinson and Minikin (2012) stated that the successful performance of Olympic athletes in their chosen sports could depend on the successful operation of the respective National Governing Bodies. Similarly, according to De Bosscher et.al (2006), the success of an athlete or team depends increasingly on the performance capacity of the national system and its effectiveness in using all relevant resources for the benefit of elite sport. As previously discussed, the UK government and its agents invest heavily in the development and improvement of elite Olympic sport performance (De Bosscher et.al, 2006). This is a recognised strategy to bring competitive advantage for the nation (Robinson and Minikin, 2012). And it could calmly be said that the better the competitive advantage is, the higher the likelihood for success becomes (Robinson and Minikin, 2012). On the other hand, taking advantage of opportunities and minimising risks is a difficult and often problematic matter (Porter, 1980, in Robinson and Minikin, 2012). Strategies and decisions require to be adequately implemented in order to avoid or overcome weak areas (e.g. unjustified sport funding cuts). Such statements support the importance and need for objective and realistic policies to be carefully chosen. And it is the athletes, who are considered the most important resource to be developed in order to improve performance and success (Robinson and Minikin, 2012). And sport funding policies have a significant influence on athletes' Olympic performance, and even national participation numbers (De Bosscher et.al, 2006). Martindale, et.al (2007), looked at the importance of the talent and development stages, in relation to studying the characteristics of elite level athletes and the influences on the way to winning at the Olympics. They state that:

"Undeniably, effective [talent identification and development] systems will enhance the quality and sustainability of the UK's elite level teams, also bringing large financial rewards and recognition [return of investment]. First-class talent identification and development schemes, capable of delivering highly able and prepared athletes to the senior

level, are particularly important against the backdrop of the increasing professionalism and standard of world-class performance in the modern era."

(Martindale, et.al, 2007, p. 187)

Further in their work, the authors argue that while it is understood that talent grows with experience, some sport professionals or institutions insist on providing funding to only a small selection of young athletes, considered to have a future potential, based on their current performance (Martindale, et.al, 2007). Such statements suggest that in some cases people tend to neglect the long-term continuous benefit of investing in young sport talents, tempted by the short-term success, which could often appear as a one-off unrepeatable achievement. This is but one of the many challenges for elite sports in the UK, as talent development focuses on the winning without building the solid base for improvement, which is a pillar for success (De Bosscher, et.al, 2006). Therefore, there is a clear need for continuously improving opportunities and effective practices for the identification and development of young talented athletes (Martindale, et.al, 2007).

Duffy et.al (2006), conducted a research on evaluating, by firstly establishing, factors influencing the development of British elite athletes. Their research has gathered evidence from the analysis of a variety of 'elite' athletes in the UK, not only representing different sports, but also from different age groups, levels, and backgrounds. A particularly interesting outcome is that according to the majority of these athletes, financial support and especially government funding has a rising significance as they progress. Funding contributes to their development and improvement, and its insufficiency does not only limit progress and success, but it could also lead to athletes' drop-out (Duffy et.al, 2006). An additional key outcome of this study is that according to the authors it takes approximately 10 years for a potential elite junior athlete to develop and reach the required standard for the UK Sport World Class levels (Duffy et.al, 2006). Another relevant and crucial element, stated by De Bosscher et.al (2006), is the need for professional coaching and other related sport professionals to identify and support talented athletes' on the 'pathway to the podium', which could not be achieved unless sufficient and well-optimised funding is strategically applied.

Based on Wernerfelt (1984) (cited in Robinson and Minikin, 2012), successful sport performance, especially at Olympic Games, is based on resources - the Elite Olympic athletes, and the way the country and its responsible institutions can optimize the use of their resources (e.g. through relevant sport policies and efficient funding strategies). In other words, the successful Olympic performance depends on the country's sport system and its capability of producing athletes to compete at the OGs (Robinson and Minikin, 2012). A note should be made that while such statements justify reasons for UK Sport to extend its funding to Talent, Development and Podium athletes (UK Sport, 2013), it also stresses on the responsibility the organisation has in terms of achieving objectively and realistically set targets.

Vaeyens, et.al (2009) state that the beginning of an Olympic cycle provides opportunities both for athletes and nations' sporting system to improve and succeed towards the next Olympic Games. The authors further suggest that a tendency among countries is present in developing systematic approaches to support potential talents – i.e. prospective athletes, with the help of targeted public funds (Vaeyens, et.al 2009). Due to this further matter of 'double targeting' (once in terms of selecting the sports with the highest likelihood to win Olympic medals, and then selecting the athletes to invest in) some disadvantages arise. The more institutions target their policies and strategies, the smaller their talent pool becomes. Also, it is important to keep in mind that often the return of talent investment is more likely to be seen in the long-term (longer than an Olympic cycle) rather than the short-term (within a single Olympic cycle). This not only minimises chances for the so desired success of the nation, but it also prevents those athletes with potential who are placed outside the targeted, to develop and determine their winning capability.

Nations compete more intensively to become the most successful at the Olympic Games, which are considered the biggest sporting event (Vaeyens, et.al 2009). An increased number of countries are winning medals in a variety of sports, which leads to the competition to be even more difficult (De Bosscher, et.al 2006). It should be acknowledged that it is no longer enough for a nation to target funding and resources into a small selection of Olympic sports, and to leave the majority in the shadow, especially if it is one that can

afford an alternative approach, as it stands in the case of the UK. To some extent elite sport performance is a managed and controllable phenomenon when there are solid strategies and policies put in place (based on Shibli, et.al, 2012), but more money spent in sport does not necessary mean more medals to be won. Approximately half of the UK Sport funding for the London 2012 OGs was given to only five sports, leaving the remaining 22 to 'struggle' with the other half (UK Sport, 2013).

Participation in targeted Elite Olympic Sports in the UK

Sport participation contributes to youth sport development, especially to those who engage with sport and physical activity and thrive for success in their chosen disciplines (Coackley, 2011). In its European Sport for All charter, the Council of Europe states that every individual shall have the right to participate in sport (Green, 2006). It is such statements, which lead sport policy makers to invest money and resources in developing effective sport participation programs (Council of Europe, in Coackley, 2011).

Nevertheless, it wasn't until the 1980 when the attention paid to sport development started to change and focused not only on elite sport, but its grassroots level, where participation is a key feature (Collins, 2010). In the long-term, this initiative has lead sport development to become a more strategic tool for increasing participation in the UK (Collins, 2010). It could be said that the increasing competition and number of rival nations at Olympic Games have also led to a higher demand for sport development at all levels. Hence, the elite sport level needs a good pool of talented athletes to progress from the grassroots level, which on the other hand increases the costs and investments needed in sport (Shipway, 2007). Collins (2010) states that:

> "*The National Lottery not only provides funds for elite sport, but it also offers important financial incentives for co-operation between partners [organizations working towards sport development and increasing participation]. The availability of lottery funding helped to overcome many tensions, especially between National Governing Bodies for sport and voluntary sports clubs, which have an inseparable and vital part in this process.*"
>
> (Collins, 2010, p. 369)

In the first decade of the 21st century the UK government had separated sport from physical activity by making Sport England responsible for one and the Department for Health for the other (Collins, 2010). Sport England and SNGBs were to be accountable for increasing participation and development of sport through the Whole Sport Plans, and failing to reach their given targets would result in public funding being cut down even if the achievements from the London 2012 Olympic Games are met (Price, 2009).

The benefits of developing sport participation are well recognized, as well as the social problems it helps to reduce (Coackley, 2011). In the UK in particular, the need to increase participation and the potential implications have also been acknowledged (Girginov, 2008), including in terms of Elite sport development. In the DCMS' Game Plan some weaknesses could be seen regardless of the overall aim of the government to increase participation, mainly in terms of providing sufficient funding support (Girginov, 2008).

"Despite the consistency with which the rich and populous countries dominate the Olympic medal tables, there is a constant need for their governments to ensure the continued availability of the basic resource, namely "full-time" athletes."

(Green & Houlihan, 2005, in De Bosscher, 2006, p. 193)

In addition to other benefits (e.g. improving health and physical activity among the country's population), (Heinemann, 2005), increasing participation also provides a higher percentage of athletes in the talent pool, with potential to progress to the elite level (Girginov, 2008). And it is authors like Collins (2010) who state that differing from their Whole Sport Plans, a priority for many NGBs is to develop athletes with potential to compete at the Elite Olympic level, and this is why increasing participation numbers has a significant role in this matter.

In general, participation in sport is influenced from a variety of different factors (Hallmann, et.al, 2012; Gustafsson, et.al 2010). This research aims to establish whether sport participation numbers are particularly linked with the concepts of public funding distribution and Olympic performance. Added from the study of Hallman, et.al (2012), people are more likely to get involved with sports where more opportunities are present

(e.g. funding related - better facilities, less costs involved, accessibility). Even though this statement arguably could be applied to all sports, what could be suggested is that such tendencies result in minimising the talent pool for those Olympic sports with less funding, and it becomes more difficult for them to prove their winning capability at the Olympic Games. If to consider that (target) funding depends on performance it is also the successful performance itself which depends on the objective funding, its utilisation, and setting realistic targets (based on outcomes from Garrett, 2004, and Sam, 2012). What could now be added to this equation is the importance of participation. The increase and decrease of participation numbers affects the talent pool and consequently influences the overall elite performance of the particular sports, as well as their funding. This suggests for the dependence of funding and performance on participation. However, it is still unclear whether participation is also influenced by the state and conditions of different sports and if it is likely to be higher in those sports where stable performance and sufficient funding are present or not.

Evidences supporting an alternative philosophy should also be considered. According to Weed, et.al (2012) to current date there are no solid records of previous Olympic Games to have increased or decreased the number of participants in sport and/or physical activities. Such statements raise logical concerns in regards to the existence of any sort of relation between participation, funding and performance. The London 2012 Legacy Plans differ with their leveraging strategies to use the Games as an inspiration for those already playing sports to play a little more and those who have still not experienced sport to also feel inspired and get involved in sports and/or physical activities (Shipway, 2007; Weed, et.al. 2012). Sport England's Active People Survey has been considered the most successful tool used to measure national participation numbers (Sport England, 2013). The survey runs annually for twelve months, allowing for both recent and historical rates to be tracked. The outcomes of the APS have been critically analysed in the following chapters of this study.

Overall, Weed, et.al (2012) conclude that in order to increase participation numbers the development strategies need to be aimed at wider public engagement, as well as to promote an maintain positive attitudes towards the economic, social and sport related benefits of the

Olympic Games. It could also be added that there are many challenges and potential for misplacing sport policies in the UK when it comes to managing sport equally at both the elite and grassroots level (Collins, 2010). The set participation targets are close to 'unrealistic' or 'too optimistic', and some NGBs agree with such assumptions (Collins, 2010). Underestimating or neglecting the influence of some factors (such as failing to consider the impacts of funding on performance and participation) is between the potential reasons for a drop in numbers of people participating in sport. It could be argued that even the overall analysis of participation numbers from Sport England's Active People survey or the DCMS' Taking Part survey are failing to be optimistic when results are looked on a sport-by-sport basis. Some results and discussion of this topic will be explored and presented in later sections of this study, especially in relation to British Olympic Sports, and the London 2012 Legacy, where a promise was made that the Games will boost sport participation in Britain (Collins, 2010).

The promise to 'boost sport participation' in the UK as part of the London 2012 Legacy - positive and negative sport development

One of the key points that helped London and Britain win the bid to host the 2012 OGs were the legacy plans, and more specifically – the ambitious intention to use the Games to increase sport participation by promoting the 'sport for all' approach, and create a world-known sport system (Girginov and Hills, 2008; Charlton, 2010). The complexity of this system makes its functions unclear and intentions unjustified, opening it to more criticism (Bullough, 2012). Overall, the aspiring aim of the project is to reach people at every level, taking into account their behaviour, culture, social relations, etc. (Girginov and Hills, 2008). The scope of the project is immense, and that makes it more difficult to adopt adequate approach towards improving sport participation (Charlton, 2010). The goal involves big changes, creating many challenges for its successful implementation (Girginov and Hills, 2008). Some of them could be related to the disagreement between people and/or institutions on outcomes, discussed by Girginov and Hills (2008). The same authors argue that the effective sport development is one that meets the needs of the people today, but without compromising their future opportunities or those of the coming generations. Sport development can be seen in different forms. It is not a fixed target, but a process of

construction, maintenance and destruction instead, providing people with opportunities for participation and succeeding in sport (Girginov and Hills, 2008).

Interesting to note is that Girginov and Hills (2008) suggest that with all the recognized benefits of hosting the Olympic Games, there is an unavoidable negative development (e.g. funding cuts in some sectors of sport and further closing down of sport facilities). These negatives need to be addressed by the government, as failing to do so, could impact on sport development and participation. It could be said that the above is in fact contradicting the two previously mentioned statements. Increasing the funding in some areas of sports whether it is geographical or structural by cutting it in others does not mean increasing opportunities for participation and positive sport development (e.g. cutting grassroots level funding to boost elite's). It means current participants losing out in the long-term, because of the 2012 Olympic Legacy plans (Girginov and Hills, 2008).

In relation to Sport England and the Active People Survey, Charlton (2010) states that the UK government through Sport England may have declared their aspiration to increase mass participation in the country, but the results from Sport England's survey show the opposite. Charlton (2010) concludes that for the past approximately 20 years national participation rates from the APS have remained fairly unchanged, despite of the creation of strategically focused sport policies. Increase in funding projects has boosted some short-term changes in a few sports, but with no continuous sustainability (Collins, 2008 in Charlton, 2010). The same authors argued that as long as elite sport continues to be given drastically higher priority mainly in terms of funding over mass sport, aims and objectives to increase participation rates in the country could not be achieved (Charlton, 2010). Moreover, there are other factors with strong influence on mass participation, which should not be ignored (e.g. the impact of the OGs, British sports Olympic performance, the funding available to each sport). The contrast between elite and grassroots sport should not be a competition between number of medals and participation numbers, but instead to see successful performance as a key driver for change in inspiring people to take part in more sports (based on Charlton, 2010, Bullough, 2012 and Green and Houlihan, 2009).

The contradiction between words and actions related to increasing sport participation is evident according to Charlton (2010). For all relevant institutions, there is a great deal of commitment required to resolve challenges together and to effectively utilize resources (Girginov and Hills, 2008). Furthermore, attracting, developing and sustaining athletes is a serious issue, regardless of the sport, as in many instances the return of investment will be significantly noted as a positive outcome (e.g. winning medals) in the long-term – longer than one Olympic cycle (Girginov and Hills, 2008). This could be applied to both the elite and grassroots levels of Olympic sports. Creating and maintaining opportunities for sport development and participation expects a long-term strategy and vision. The promised positive changes could not be achieved while the majority of funding alternatives are present as short-term one-off targets (Girginov and Hills, 2008).

The Growth of the Paralympic Games and the Development and Organisation of Paralympic Sports in Great Britain

According to Gold and Gold (2007) the Paralympic Games have had major importance throughout the latter half of the 20th century in changing society's perceptions of disability sports and promoting the agendas of inclusion, diversification and equality among people. These agendas also featured in the London 2012 social values. The key economic and social roles of the Paralympics have consequently led to their development over time, an increased number of Para-athletes from more countries taking part and a growing rivalry in the medal standings (Gold and Gold, 2007). Great Britain's participation and performance through the early years of the 21st century could be given as a good example to support these statements. British Paralympians have demonstrated growing potential and strong medal achievements in the four Olympic Games since the Millennium. Nevertheless, the performance of the Para-athletes should not mislead any assumptions related to the development of Paralympic sports in Great Britain, and the concepts explored in this thesis. There are many obstacles and constraints for participation in Paralympic sports (Nixon, 2007), including the amount of funding available, accessibility, popularity, etc. A historical review of the development of the Paralympic Games by Gold and Gold (2007) suggests that while Olympic cities like Sydney and London were able to build on existing structures of

disability sports, other host cities such as Athens and Beijing had to effectively promote the image of disability sports beforehand due to fairly recent traditions in Paralympic sports.

It is relevant to note a statement by Morris (1991) according to who if the perception of the society becomes more positive, and effective public policies are put in place to remove existing barriers between Olympic and Paralympic sports, then there will be fewer challenges for Para-athletes to succeed in their chosen sports. Indeed, as Brittain (2004) argues, if the underlying attitudes and level of understanding could be changed in a positive manner, then necessary policy changes will be the result of a natural progression. The changing attitudes approach adopted in the case of Beijing and China has proven successful as the country has maintained a strong presence in the top of the medal tables (London 2012 archive, 2013). In the case of the London 2012 Games, Britain's heritage in disabled sports was used as a key advantage to help further develop the positive image of the Paralympic Games. Whether these plans have been successful is yet to be evaluated. Currently, the Paralympic Games in general remain overshadowed by the Olympics. The umbrella of the Olympic Games leads to additional challenges such as limiting popularity and restraining participation, as well as limiting media interest in comparison to the Olympics (Nixon, 2007).

The review of the literature on Paralympic sports has showed that not many authors have done academic research centred on the Paralympic Games (Gold and Gold, 2007; 1995; Nixon, 2007; Brittain, 2012), and there is still little known about funding, performance and participation in Paralympic sports. Even though general barriers for participation in Paralympic sports have been explored, measuring numbers of participants remains difficult and unclear. According to Brittain (2004) no mechanisms exist to monitor and examine the current challenges disabled athletes often come across at different levels of sport. The author further states that this occurrence occurs despite of the growth of the Paralympic Games and the increasing medal rivalry (Brittain, 2004). The shadow of the Olympic Games has an impact on the academic work in regards to the concepts of funding and performance as well. A particular advantage of this thesis is the conducted comparison between Olympic and Paralympic funding, as well as the performance in terms of number

of medals won by Team GB in the parallel Games. Results have been presented in the following chapters.

In conclusion, this literature review has studied relevant changes in sport policies and the structure and governance of British Olympic sports. Overall, the unclear focus on elite or grassroots sport through the years and the unjustified to some extent pattern of funding distribution have raised concerns in regards to the long-term effectiveness of the British sport system (e.g. in efforts towards increasing sport and physical activity participation) and its ability to both achieve and sustain sporting success. As it has been noted throughout the chapter, justified objective decisions are vital in elite sport development, in maintaining progressing sport participation numbers and ensuring funding related decisions are in favour of as many sports as possible and optimise athletes' chances for success.

It has been in the aims of this literature review to explore existing research on elite and grassroots sport development in Great Britain, including structural shifts in the governance of sport and changing sport policies. The review of the literature has also explored the various contributions to knowledge on defining relevant concepts, such as funding, performance and participation. Overall, it has been concluded that in many instances single full definitions may well be impossible to be given as there are a number of variables with changing influence on each of the three main concepts of interest. Therefore, setting boundaries to restrict the broadness of concepts has been considered necessary for the purpose of this research. How funding, performance and participation have been defined and measured has been stated throughout (e.g. in the Rationale of the thesis and in the Methodology chapter).

CHAPTER 3 – Methodology

This chapter aims to introduce the reader with the methodological approach undertaken in this thesis and explain how the different methods and analysis have been applied with the aim to deliver a well-structured answer of the central research question, supported with the relevant theory and reliable evidences and examples. The chapter starts with an introduction into the nature of the research and the most significant methods used throughout. It also highlights chronological milestones in analyses.

The chapter seeks to explain the methodology followed throughout the thesis, giving the opportunity to the reader to re-create the study. It has been suggested that the research undertaken is exploratory with the support of a descriptive study elements as by combining these methods potential limitations could be minimised. The philosophical approach discusses what is known so far in regards to funding Olympic sports, elite athletes performance and national participation numbers, as well as it argues how knowledge in this area has been derived, questioning the objectivity of the analyses. Another key methodological characteristic of this research is that it follows a deductive process. Although it has not been excluded that some explanations could be generated based on data collection and analyses - characteristics of an inductive approach; this research involves critical reviews and analyses of pre-determined theories (Gratton and Jones, 2010).

The purpose of the thesis is by carrying critical analysis to study the management of British Olympic sports from a perspective not previously considered. It aims to objectively study the distribution of public funding and its impacts on Olympic sports, related to Olympic performance and national participation numbers in the case of the UK. Each of the three concepts discussed has been widely researched (Green and Oakley, 2001; Shibli, et.al, 2012), but there is very little research looking at the potential relationship between funding and performance (Green, 2006; De Bosscher, et.al, 2012) and studies testing a relationship between all three have arguably been carried until the present. While studying this relationship and evaluating the impacts of funding related decisions on the Olympic performance and participation rates in British elite sports, the thesis also looks into Paralympic sports.

According to Gratton and Jones (2010), conducting research in the field of sport is essential to highlight gaps in the management and identify issues to be overcome, as well as to give recommendations for improvement. In order to successfully achieve its purpose, this study has been conducted with the help of different qualitative and quantitative methods, including statistical analyses and an extensive and critical review of sport policies. It is becoming an increasingly common practice for researchers to use a combination of quantitative and qualitative analyses (Gratton and Jones, 2010). Examples can be given with Shibli and Bingham (2008) and later with Shibli, Gratton and Bingham (2012), who have forecasted the medal performance of China as the host nation for the 2008 Olympics and Britain's medal success when hosting the 2012 Olympics. While the authors' analyses involve statistics predominantly some qualitative analyses could also be seen, such as reviews of public documents and policy documents. This mixed methods approach allows for existing theory to be critically reviewed and advances of the existing theory to also be conducted (Edwards and Skinner, 2009). Referring to Nau (1995), mixing qualitative and quantitative methods could strengthen the answer of the research question as both methods would be used to advance knowledge in regards to the same occurrence.

As discussed in the literature review the concept of successful performance in sport can be understood differently depending on the variety of factors defining success and performance in sport (see De Bosscher et.al, 2006). For the purpose of this thesis, performance has been measured by the number of Olympic medals won by the British nation overall and individually by sports, taking into account the funding allocated and the sport participation numbers. Defining performance with a quantifiable figure gives the advantage of including the variable in descriptive statistics and analysis. As other factors influencing performance have not been excluded, the variable could still be considered as reliable. In addition, elite sport funding has been measured by the amount of funding allocated by UK Sport, and participation has been measured using the figures from the Sport England Active People Survey.

In order to meet the set aims and objectives, a historical database of funding, performance and participation has been constructed (see Appendix 2). In it have been included all

Olympic sports from the Sydney 2000 up to the London 2012 Olympics, in which Great Britain has been represented. The database shows the UK Sport funding every sport has been allocated in each of the four Olympic cycles since the Millennium Olympiad. Funding figures towards the upcoming Games in Rio 2016 have also been included. As performance has been predominantly measured in terms of number of Olympic medals won in relation with funding available, the database also shows the medals won by every sport in each of the Olympiads. They have been further divided in categories listing the number of gold, silver and bronze medals won, as well as the total. In this database, Olympic and Paralympic funding and total number of medals have been put together to allow for further analyses and comparison of figures. A note should be made that as data in this research has been conducted entirely by secondary sources, sufficient figures have been available only for the London 2012 Olympics. Sources of funding and performance figures have been UK Sport, London2012 and the International Olympic Committee archives. Even though the research studies funding, performance and participation together, data on participation rates had had to be put separately from the above mentioned database. The data on participation has been gathered from the Sport England Active People Survey, where figures have been measured on a yearly basis rather than as per Olympic cycle. Taking into account the difference in the frameworks for measurement allows for changes in participation numbers to be reviewed both historically as well as in relation with funding and performance in the respective Olympic cycle. As it is in the aims of this research to analyse and establish whether a relationship or inter-dependence is present between the above mentioned concepts in addition to the historical database other quantitative analyses have been implemented in the form of statistical tests with the Statistical Package for Social Sciences (SPSS). SPSS has been used to test and explore the suggested relationship between funding, performance and participation. It should be acknowledged that while the importance of developing grassroots sport has also been discussed, analyses have been focused on elite sport development in British Olympic sports.

It has been suggested that a degree of uncertainty and complexity exists in the existing body of knowledge in regards to the British Olympic sports system (Green, 2006). As a qualitative method, a critical in-depth review of relevant sport policies and their practical

implementation would contribute in providing better understanding of the impacts of sport funding related decisions on Olympic performance and national participation numbers in the case of Great Britain. In addition, this research is a critical inquiry in which some contradictions in present sport systems and practices in the UK become evident (Smith and Caddick, 2012). In the future, by studying the impacts of target funding on performance and participation could potentially lead to positive changes and improvements to the British Elite athletes' development. As Schnaudt (1997) is cited by Smith and Caddick (2012), a good critical inquiry is both practical and realistic, and aims to be informed of relevant political, economic and social factors.

All data required has been gathered from secondary sources to ensure the validity of information and reliability of analyses. The International Olympic Committee database archive provides historical Olympic results – the amount and type of medals won in each sport at particular Olympic Games. The London2012 database consists of similar information and is also publicly available. It includes overall number of medals won and nations' medal standings from every Olympiad since 1896. Additionally, with the help of data from the Sport England Active People Survey, participation numbers in most Olympic sports have been provided for review and analyses. The funding figures for Olympic and Paralympic sports have been obtained from UK Sport. A note should be made that the Active People Survey is run per 12 month cycle and not as per Olympic cycle. The participation data available gives the flexibility to run analyses per year or per survey, as well as combined, in order to better track changes in national participation rates.

Case Study Design

According to authors like Edwards and Skinner (2009) and Yin (2009), a well-known method for implementing and presenting critical academic inquires is the case-study design. It is particularly relevant when aiming to investigate contemporary events in their true context or answer a particular research question. Yin (2008) has stated that the case study design is particularly useful when theory and outcomes suggest to be systematically narrowed to a specific context. And Edwards and Skinner (2009) have identified that this design could be used in combination with a variety of methods (e.g. combination of

qualitative and quantitative analyses). According to Edwards and Skinner (2009), successfully combining several research methods to answer the same question could strengthen the validity of the outcomes and contribute when studying a previously unexplored area in academic knowledge. Following these statements, the case study design has been seen as the most suitable and beneficial for the purpose of this research, where elite sport development in British Olympic sports has been the case study for analyses. It is expected for the final outcomes of the research not only to produce a better answer of the central question, but to highlight its contributions to the body of knowledge in elite sport development (Yin, 2008). The well implemented research could also make the study repeatable in the future or be used to provide basis for further research. Reviewing several Olympics as part of this case study suggests that outcomes of the research would not be applicable to a single phenomenon only. If impacts of elite sport funding and policies on performance and participation could be tracked historically (e.g. since UK Sport funding started in 2005-2006 and the National Lottery funding started in 1997), and are evident in the present, then it will be of relevance to explore whether potential impacts could be seen in the future. A note should be made that the London 2012 Games are considered as the most recent for the purpose of this research, as the study has taken place in the months following the conclusion of the London Olympiad.

Setting boundaries accordingly could help the validity of outcomes (Yin, 2009). The further distribution and usage of the funds, once given to the respective Sport Governing Bodies has not been followed. Instead, it is in the purpose of this thesis – through a concise and well-defined central question, aims and objectives, to emphasise on elite sport development in British Olympic sports, and study the impacts of public funding on Olympic performance and mass participation, as well as to critically review if the taken for granted assumption that more money in bring more medals out is in fact true or false. This research aims to advance knowledge and fulfil a certain gap in the area of elite sports development in Great Britain. Reviewing elite funding policies and distribution shows that funding, performance and participation do not exist in isolation and it is essential for their relationship to be examined, as well as the impacts of the relevant policies and decisions to be further studied.

Statistical Analyses

Descriptive statistics are a quantitative method of observation and could be used to provide a summary of analyses from the collected data (Andrew, et.al, 2011). The different analyses tested in this study have been reviewed in the current section. The variables analysed have been Olympic sports funding, Olympic performance measured by number of medals and national sport participation numbers. The results of these tests have allowed for arguments to be drawn in regards to the relationship between funding, performance and participation and have been discussed in the following chapter.

The cross tabulation has been used to show the funding every sport has been allocated for the particular Olympic Games, together with the number of medals won. By using crosstabs it could be tracked how the figures have been spread across all sports. It has been of interest to see whether the most successful sports in terms of performance have also been those with the highest funding. Chi-square tests are another form of crosstabs analyses, often used to test if selected two variables are related. In chi-squares, the lower the value of the significance coefficient is, the more likely it is that the selected variables are related and vice versa – the higher the coefficient is, the less likely it is for a relationship to be evident.

Bivariate Correlation is a quantitative statistical method often used in descriptive statistics, which shows the degree of relationship between pairs of variables in a data set (Andrew, et.al, 2011). Similar to the chi-square tests, values below or close to the level of statistical significance suggest for a correlation to be present. If the score is 0.00 or higher than the set coefficient, then no statistically significant relationship is present. In case there is indeed a correlation between variables, it could range from a negative relationship of -1.00 to a positive relationship of +1.00. Negative relationship exist when one variable increases and the other decreases, and positive relationship appears when the growth of one of the studied variables leads to an increase in the other. Bivariate correlation also gives the option for a third variable to be added and the overall relationship tested (Gratton and Jones, 2010). It should be acknowledged that the selected variables may not influence each other with the same strength, but they might have varying influence and significance. Also, correlation analyses cannot determine causality - the extent to which one variable solely

causes impact on the other or there are additional factors with influence (Gratton and Jones, 2010). Bivariate correlation has been the preferred test of association in this research as it is a commonly used method when seeking to establish whether a relationship between variables is present or not, as well as the direction of this relationship (Gratton and Jones, 2010). Another possible test of association could be a regression analysis. However, regression analysis is more common when exploring the possible effects of a relationship between variables (Gratton and Jones, 2010). The purpose of this thesis has been related to establishing whether a relationship between the selected three variables exists or not and the further effects of such associations could be explored in additional studies.

It is in the advantages of using the mixed methods approach to maximize the beneficial aspects of quantitative and qualitative methods, while using one to overcome the limitations of the other. The quantitative methods have allowed for sufficient data to be collected, followed by a comparison of figures and information in a time and cost efficient way (Gratton and Jones, 2010), while the qualitative methods have allowed for the critical review of sport policies and documents alongside the statistical analyses.

Overall, this chapter has introduced the reader with the methodological approach undertaken in the thesis. It has explained the step by step process of how the study has been constructed, and the theory and data gathered and analysed to provide an extensive and reliable answer to the central research question and fulfil the identified gap in the existing knowledge on elite sport development and the concepts of funding, performance and participation.

CHAPTER 4 – Results and Discussion

The purpose of this chapter is to provide a critical policies review and comparison of outcomes in relation to Elite Sports Development in Britain. It intends to focus on analysing the practical consequences of decisions related to target funding and to discuss the potential impact of funding decisions on Olympic performance and national participation numbers. It presents a qualitative critical review of relevant British sport policies as this has been considered an essential aspect of this research in order for a valid and reliable answer of the central research question to be provided. A qualitative analysis of funding, performance and participation together could allow for better understanding of the three concepts and how they influence each other. The forthcoming sections of this chapter aim to critically discuss the aims of different sport policies set by DCMS, UK Sport and Sport England, how those have been applied and to what outcomes they have led. The purpose is to highlight and criticize the gap between the written strategies, the practical actions undertaken and the consequential impacts. In addition to the qualitative analyses, results of the performed statistical tests have also been included to further strengthen argumentations. The use of the mixed methods approach helps to provide fuller evidences and discussion to form a reliable answer of the central research question and meet the set aims and objectives.

Statistical Arguments

A brief example with Rowing and Table Tennis – the sports with the highest and the lowest London 2012 funding respectively, has been considered appropriate as an introduction into the coming discussion of outcomes of the carried statistical analyses. From the total UK Sport investment for London 2012, estimated at around £264 million, Rowing has received £27 million, while Table Tennis - only £1.2 million (UK Sport, 2013). In terms of number of medals obtained in these two sports it could be concluded that performance has reflected these estimates accordingly. Table Tennis has failed to bring back Olympic medals, while Rowing has won 9. In contrast, participation figures in Rowing have been reported as ‘decreasing’ since the Beijing Olympics, while Table Tennis has showed an increase in numbers in the same period (APS, 2012).

Another example could be given with Paralympic sports. UK Sport has spent just under £50 million pounds, of which Paralympic Swimming has received approximately £10 million, while Goalball and Wheelchair Fencing have been allocated only around half a million each (UK Sport, 2013). The majority of Paralympic sports in which Great Britain has been represented in the London 2012 Olympics have won a total of 120 medals, of which Para-Swimming has won 39. Only less than a third of all Paralympic sports have not won any medals. Despite the difference in Olympic and Paralympic funding, the Active People Survey reports a slight increase in number of people taking part in disability sports across the UK for the period between the 2008 and 2012 Olympiads (Sport England, 2013). Such outcomes suggest that while changes in funding and performance may have stronger influence on each other, participation does not reflect these changes accordingly. Overall, based on the Active People Survey, the predominance of Olympic sports report decreasing participation numbers despite their allocated funding. The impacts participation has on sport development and performance should not be underestimated as they impact on the quantity and quality of the pool of talented athletes with potential to compete at the elite level (Girginov and Hills, 2009).

The bivariate analysis of funding, performance and participation from the Beijing'08 and London'12 Olympics have shown no statistically significant relationship to be evident (SPSS Outcome 1 and 2). This has led to the conclusion that the statement of 'more money in sport could bring more medals out' to be considered as at least partially untruthful and misleading. Regardless of this outcome, funding has continued to increase towards the next Olympic cycle. Britain may have won more medals in London 2012, but it is nowhere to be found if the increase in funding has been the strongest factor in this case. Furthermore, it is not clear whether funding has gone up as a result of the improved performance or it is the successful performance that has led to more money being invested in elite sport. As De Bosscher et.al (2006) states, there are many factors with influence on successful performance, which should not be dismissed. Some examples could be given with the host nation effect (see Shibli et.al, 2008; 2012), sport development systems (Green, 2004; Sam, 2012), and the importance of participation (Girginov and Hills, 2008). In regards to participation levels, in both Olympics funding and performance have failed to positively

influence participation numbers. These analyses further support the statement that increased funding may be between the most influential factors for improving sport performance, but there is even greater importance in the way it is being distributed and utilized, while other influential factors have also been accredited.

Correlations – Beijing 2008

		Beijing Funding	Beijing Medals	Participation
Beijing Funding	Pearson Correlation	1	.795**	.558*
	Sig. (2-tailed)		.000	.016
	N	27	27	18
Beijing Medals	Pearson Correlation	.795**	1	.579*
	Sig. (2-tailed)	.000		.012
	N	27	27	18
Participation	Pearson Correlation	.558*	.579*	1
	Sig. (2-tailed)	.016	.012	
	N	18	18	18

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

(SPSS Outcome 1)

Correlations – London 2012

		London'12	London Medals	Participation
London'12	Pearson Correlation	1	.835**	.623**
	Sig. (2-tailed)		.000	.004
	N	27	27	19
London Medals	Pearson Correlation	.835**	1	.414
	Sig. (2-tailed)	.000		.078
	N	27	27	19
Participation	Pearson Correlation	.623**	.414	1
	Sig. (2-tailed)	.004	.078	
	N	19	19	19

**. Correlation is significant at the 0.01 level (2-tailed).

(SPSS Outcome 2)

The SPSS Chi-square tests further show that there is no straightforward relationship between the studied concepts. The level of significance is set at 0.01, and the significance coefficient has a higher value, which leads to the conclusion that the two variables are not directly related. This is the case in the chi-square tests analysing potential relationship between funding and performance with data from London'12, as well as from Beijing'08 as the two most recent Olympiads (SPSS Outcome 3 and 4).

Chi-Square Tests – Beijing'08 Funding and Performance

	Asymp. Sig. (2-sided)
Pearson Chi-Square	.355
Likelihood Ratio	1.000
Linear-by-Linear Association	.000
N of Valid Cases	27

(SPSS Outcome 3)

Chi-Square Tests – London'12 Funding and Performance

	Asymp. Sig. (2-sided)
Pearson Chi-Square	.337
Likelihood Ratio	1.000
Linear-by-Linear Association	.000
N of Valid Cases	27

(SPSS Outcome 4)

From the cross tabs it could be seen that the Olympic and Paralympic medals obtained in London'12 are spread across most sports, in very small numbers, and are not necessarily in the most funded sports (SPSS Outcome 5 and 6). The only exceptions are in Olympic cycling and rowing, bringing back 12 and 9 medals respectfully, and Paralympic Swimming achieving 39 medals. Based on these analyses it could also be concluded that a higher number of sports have the potential to meet and exceed their set targets by UK Sport, if funding is being strategically and objectively allocated, followed by a wise utilisation by the relevant NGBs. Particular examples have been presented in the critical review of UK Sport policies and the ranking and prioritisation of elite sports.

London'12 * London Medals Cross Tabulation

		London Medals									Total
		0	1	2	3	4	5	6	9	12	
London'12	1213848	1	0	0	0	0	0	0	0	0	1
	1365157	1	0	0	0	0	0	0	0	0	1
	1435210	1	0	0	0	0	0	0	0	0	1
	2461866	0	1	0	0	0	0	0	0	0	1
	2529335	1	0	0	0	0	0	0	0	0	1
	2924721	1	0	0	0	0	0	0	0	0	1
	2928039	1	0	0	0	0	0	0	0	0	1
	3398300	1	0	0	0	0	0	0	0	0	1
	3536077	1	0	0	0	0	0	0	0	0	1
	4408000	1	0	0	0	0	0	0	0	0	1
	4833600	0	0	1	0	0	0	0	0	0	1
	5291300	0	0	1	0	0	0	0	0	0	1
	6288800	0	1	0	0	0	0	0	0	0	1
	6535700	0	1	0	0	0	0	0	0	0	1
	7434900	1	0	0	0	0	0	0	0	0	1
	7498000	0	0	1	0	0	0	0	0	0	1
	8599000	1	0	0	0	0	0	0	0	0	1
	9551400	0	0	0	0	0	1	0	0	0	1
	10770600	0	0	0	0	1	0	0	0	0	1
	13395100	0	0	0	0	0	1	0	0	0	1
	15013200	0	1	0	0	0	0	0	0	0	1
	16176700	0	0	0	0	1	0	0	0	0	1
	22942700	0	0	0	0	0	1	0	0	0	1
	25144600	0	0	0	1	0	0	0	0	0	1
	25148000	0	0	0	0	0	0	1	0	0	1
	26032000	0	0	0	0	0	0	0	0	1	1
	27287600	0	0	0	0	0	0	0	1	0	1
Total		11	4	3	1	2	3	1	1	1	27

(SPSS Outcome 5)

Para Funding * Para Medals Cross Tabulation

		Para Medals									Total
		0	1	2	3	4	11	22	29	39	
Para Funding	0	3	0	0	0	0	0	0	0	0	3
	513453	1	0	0	0	0	0	0	0	0	1
	552892	1	0	0	0	0	0	0	0	0	1
	786961	1	0	0	0	0	0	0	0	0	1
	809600	0	0	1	0	0	0	0	0	0	1
	1092700	0	1	0	0	0	0	0	0	0	1
	1294400	0	0	1	0	0	0	0	0	0	1
	1699400	0	0	0	0	1	0	0	0	0	1
	1748900	0	0	1	0	0	0	0	0	0	1
	2085000	0	0	0	1	0	0	0	0	0	1
	2147700	0	0	1	0	0	0	0	0	0	1
	2332300	0	1	0	0	0	0	0	0	0	1
	2333300	0	0	1	0	0	0	0	0	0	1
	2361600	1	0	0	0	0	0	0	0	0	1
	3605500	0	0	0	0	0	1	0	0	0	1
	4198000	0	0	0	0	0	0	1	0	0	1
	4493930	1	0	0	0	0	0	0	0	0	1
	6730000	0	0	0	0	0	0	0	1	0	1
	10468750	0	0	0	0	0	0	0	0	1	1
Total		8	2	5	1	1	1	1	1	1	21

(SPSS Outcome 6)

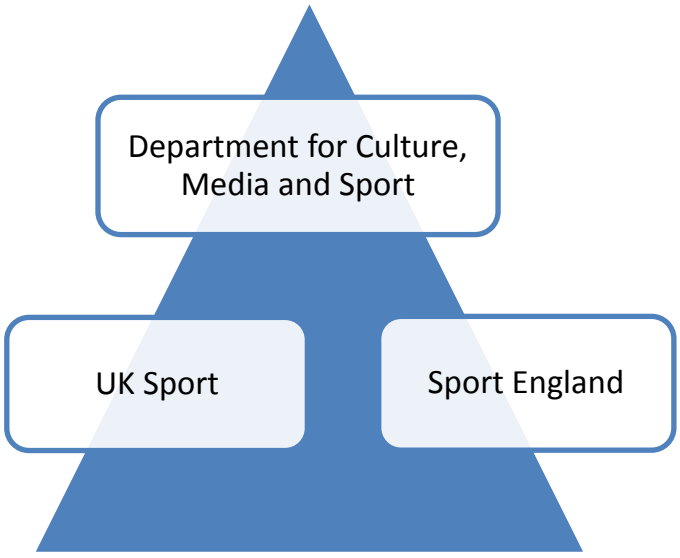
With the help of SPSS, the relationship between the concepts of funding, performance and participation has been tested. Overall, the bivariate correlation tests, with data from the London 2012 Olympics as most recent, as well as with historical data from previous Olympiads, show there is no straightforward relationship between the studied variables. Such outcomes suggest for the statement that more money in sport bring more medals out to be considered as misleading. While indeed higher financial investment in elite sport could positively influence successful performance, funding alone should not be assumed as the sole or dominant contributor to the increase in number of medals to be won. It should be rather said it is the combination of different influential factors, including funding, which

could have an impact on sporting performance and elite sport development (De Bosscher, et.al 2008; Sam, 2012; Garrett, 2004). Failure to acknowledge such statements could lead to challenges in the development of elite sports and limited opportunities for success to the short-term or as one-off achievements. It is therefore essential for sport funding to be distributed and utilised in a just and optimal way. The following sections continue with a critical discussion based on the review of relevant sport policies – the gap between the written polices and the results of their practical implementation.

Critical Sport Policies Review

A brief introduction to the hierarchy of sport organisations in the UK

UK Sport and Sport England are not only accountable to the DCMS, but also responsible to fulfil the targets set by the Department. As Grix and Phillpots (2011) state, the UK Government system has undergone a period of modernisation, creating a governance network with different in complexity sets of policies. In their study, Oakley and Green (2001) term this occurrence a fragmentation in institutions. It is applicable to the sport sector as well, as a hierarchical structure seems to be present at the highest levels of governance and organisation of British sports (see Diagram 1).



(Diagram 1)

The Department for Culture, Media and Sport is situated in the top of the hierarchical structure, in terms of power and influence, followed by UK Sport and Sport England (Grix and Phillpots, 2011). Both institutions also possess high level of control over sport policies (Oakley and Green, 2001). This network structure has some potential limitations as de-centralisation, loss of focus or unrealistic target setting (Bevir and Rhodes, 2008; Bevir and Richards, 2009; in Grix and Phillpots, 2011). In order to highlight the positive and negative aspects in the sport policies from the DCMS, UK Sport and Sport England, those have been critically discussed in the forthcoming sections of this chapter.

DCMS' Policies

DCMS Policies (2012/2013) concerned with Sport in the UK
1. Get more people playing sport
2. Creating a lasting legacy from the 2012 Olympic and Paralympic Games
3. Maintaining and improving Britain's elite sport performance
4. Making sure that the National Lottery operates effectively and funding for good causes is distributed properly

"Getting more people playing sport"

The Department for Culture, Media and Sport has recognised the need to increase participation numbers of people playing sport in Britain. In addition to the health, physical, economic and social benefits, getting involved with sport is the first step to competing in elite sport, reaching a high-performance level, and improving the sporting image of the nation. The Government Department also acknowledges that athletes at the early stage of their development (e.g. youth, when leaving school) could face a variety of obstacles leading to a drop-out from the sport and inability to fulfil their sporting potential. A set of actions has been developed to maintain and increase participation numbers (e.g. setting up the School Games to inspire young people take part in sport, and funding 2012 Legacy projects). In addition, along with funding allocation, the DCMS has shared responsibility for the development of mass sport with Sport England. It is then the organisation's decision how to distribute and utilise the public funding investments.

"Creating a lasting legacy from the 2012 Olympic and Paralympic Games"

The 2012 Legacy Plans involve strengthening people's relationship with sport at all levels (grassroots and elite), as well as transforming perceptions and develop Paralympic sports, and support Olympic and Paralympic athletes progress and take part in major sporting events (DCMS, 2013). The ambitious Legacy plans for the London 2012 Games, including increasing sport participation, were one of the key advantages that helped Great Britain become the host nation of the 30th Olympiad (Girginov and Hills, 2008). And it was the UK Government that wanted to put plans in action in order to create a lasting sporting, economic and cultural legacy for the country and its population (DCMS, 2013). The scope of the project is immense and complex, with potential unforeseen obstacles, which could prove strategies to increase sport participation to be challenging (Charlton, 2010). The successful achievement of the set targets in the Legacy Plans involves dedicated investment of financial and working capital over a long-term. The DCMS seems to acknowledge that this time period could take approximately a decade until the positive results take over (DCMS, 2013). Referring to an argument by Girginov and Hills (2008), according to the authors along with the anticipated benefits of hosting the London Olympics, there are certain negatives for the government to deal with. For example, improving sport conditions in some sports or areas by funding cuts in other sectors and further closing of sport facilities elsewhere, does not lead to more opportunities for people to participate in sports (Girginov and Hills, 2008).

"Maintaining and improving Britain's elite sport performance"

As stated by the DCMS (2013), the British sport system contributed to the nation's Olympic success in 2012. Key strategic aspects are said to be the talent identification and development programs. Future efforts should continue identifying potential young athletes, support their development and strive to enrich their high-performance sporting experience. A well-structured and objective approach, including strategically invested public funding, is essential to be implemented by relevant sport organisations (e.g. UK Sport) in order to develop athletes' potential and achieve future Olympic and Paralympic success.

Direct funding support has proven to be crucial to Elite sport development in Britain (Green, 2006). As a result of the increased public funding in sport, the UK has maintained a steadily progressing performance in recent Olympic and Paralympic Games (Shibli, 2012). The raising figures can be tracked since the Sydney 2000 OGs until the recent London 2012 Olympiad in terms of amount of funding and number of medals won, and the upcoming Rio 2016 funding figures (historical database with figures is available in Appendix 2). As previously stated, since 2006 UK Sport increased their funding to include not only Podium athletes, but the Talent and Development levels as well (UK Sport, 2013). In addition, the proportion of National Lottery funding dedicated to sport has risen from 16.66% to 20% between the years 2010 and 2012 (DCMS, 2013), resulting in higher amounts available for the current and future Olympic and Paralympic Games. As much as policies and funding demonstrate the capacity of resources the UK is able to invest in sports, it is the implementation and impact of these policies, and the funding distribution and utilisation, to raise concerns and criticisms.

"Making sure that the National Lottery operates effectively and funding for good causes is distributed properly"

Ensuring fair and sufficient Lottery funding proves to be difficult. Regardless of the total amounts available it is how money is divided and spent that matters. Referring to the de-centralisation impact of shared responsibility in the British sport government network, accounting relevant arm's length organisations to decide upon funding distribution has a double-sided impact (Grix and Phillpots, 2011; Oakley and Green, 2001). For example, through the National Lottery, the public generates millions of pounds to be invested in sport, art, voluntary, community and heritage projects. The variety of different sectors of investment has led to the government decision to let the responsible government bodies decide how to further distribute the money. Even though there are certain requirements to be followed, this is without the government's involvement (DCMS, 2013). The lack of central monitoring of funding distribution and ensuring its successful utilisation could potentially be more challenging, leading to difficulties confirming policies are justly implemented (Grix and Carmichael, 2012).

DCMS' Transparency Data Policy

The Department for Culture, Media and Sport has a further policy for transparency of data. It is committed to officially publish funding related information, including funding settlement letters to both UK Sport and Sport England. The aim is for the public to be able to see how investments are being utilised and where the expected outcomes should be (DCMS, 2013). For example, the transparency of data policy allows for amendments to UK Sport and Sport England government funding up to 2014-2015 to be tracked. By reviewing these public documents it becomes clear that most of the DCMS resources are set to be distributed to the funded institutions (in culture, media and sport), leaving a considerably small amount centrally. Logically, it is concluded that with limited central resources the Department will have less flexibility to respond to changes of various nature (e.g. in circumstances and priorities). As a result, the responsibility for producing strong contingency plans has been given to the relevant funded bodies. Nevertheless, both UK Sport and Sport England are expected to continue prioritising funding and resources, while also seeking to implement them with the most cost-effective methods. In other words, UKS is expected to carry on maintaining and increasing British Olympic and Paralympic sports' performance over the Rio cycle and ensure that all sports with medal potential continue to receive funding (DCMS, 2012). Sport England's aims are similarly put to those of UKS, though concerned with sport development at the grassroots level, increasing participation numbers and supporting the Whole Sports Plans.

Following the discussion on the Government policies concerned with sport, the coming sections aim to critically review and analyse both UK Sport's and Sport England's funding related policies, their implementation, and the impacts of the decisions made.

The Good and the Bad in UK Sport's No Compromise Strategy

UK Sport No Compromise Strategic Approach
1. Our performance mandate is success in Olympic and Paralympic Sports
2. UK Sport funds only UK World Class Programmes, approved by a UK SNGBs, which is recognised by an International Federation
3. Awards are based on current performance and future medal potential, using an investment model that links resources to athlete places
4. UK World Class Programme is a privilege, not a right
5. UK Sport aims to cover a whole Olympic Cycle with four-year investments, based on eight-year development plans
6. Awards are reviewed annually to ensure maximum impact of resources available
7. Core funding provided for sport technology, science and medicine is proportional to athletes' population and location
8. Centrally funded support programmes/services are limited to universal need and specialist areas to support excellence in Olympic and Paralympic sports
9. The principles for Olympic and Paralympic investment are the same, but the models reflect different domains
10. UKS investment recognises best practice in team-ship, openness and accountability in supporting UK athletes

According to UK Sport, which is also seen as the 'Strategic Agency for High Performance Sport', in its aims is to ensure that the available resources are utilized in the most sufficient way in order to maximise talented athletes' chances for success at the highest level of sporting competition (UK Sport's Performance Investment Guide, 2010). As an example of this statement it could be seen that in total UK Sport has invested a vast amount of funding in sports for the London 2012 Olympic Games – over £313 million for

the Olympics and Paralympics combined (UK Sport, 2013). In addition, a framework for reviewing investment in individual sports has been launched to help support potential medallists in the Olympics of 2012 and even towards 2016. It takes place in the end of each Olympiad (Performance Investment Guide, 2010). The No Compromise philosophy states that it is a commitment to prioritise the resources needed towards athletes and sports with the greatest chance of succeeding on the world stage, both in the immediate future and in the longer term (UK Sport, 2010). In brief, No Compromise can be summarised as an obligation to reinforce excellence, support talent, challenge under-performance and reject mediocrity (UK Sport, 2010).

In other words, the strategy aims to support with stable funding those sports which consistently develop medal-winning athletes. Conversely, those which fail to reach the set benchmarks in both performance and development terms, risk having their funding reduced or withdrawn. While UK Sport's philosophy seems strict, but fair, it is unavoidable to question its practical effectiveness in relation not to what actions and measures UK Sport undertakes, but how does the No Compromise strategy affect British Elite sports in the short and long run. Based on the works of Garrett (2004) and Sam (2012), it is suggested that if elite sport funding could be based on the performance of a sport and its athletes, it is sports' performance being reliant on sufficient and stable funding in order to maintain and improve existing success or build it and prove its potential. By itself this argument raises concerns in regards to not the aims of the No Compromise strategy, but the impacts of the policies and actions implemented, which influence both the short and long term elite sport funding and performance.

The following section is a critical review of UK Sport's Investment Principles for the 2009-2014 funding cycle (for the Summer and Winter Olympiads of 2012 and 2014) and which are set to be equally applicable for Olympic and Paralympic sports. The analysis highlights both positive and negative aspects and support arguments with some examples and statistical analyses. It is in the aims of this section to implement an in-depth critical review of the London Investment Principles in particular as the publicly available information for it is fuller than the information accessible from UK Sport in regards to the

Rio Principles. In addition, the investment strategies in both cycles are similar, meaning that the proposed critical review would maintain its validity and reliability regardless of the cycle analysed.

One: *"Our performance mandate is success in Olympic and Paralympic Sports"*

The first of the Investment Principles has the role to optimise the investment of public funding, ensuring it is strategically targeted. Stressing on '*targeted*', it should be acknowledged that funding is distributed to certain Olympic and Paralympic sports, according to a criteria upon which potential for sporting success is determined. As already discussed in the literature review chapter, even within the selected sports, there seems to be further targeting of funding (Vaeyens, et.al 2009). This could lead to different challenges, including limiting the size and potential of the talent pool or elite athletes' development within a sport due to insufficient funding, etc. Also, it could lead to athletes drop-out (either giving up sport or switching to a different sport and/or level) as another negative impact. For example, in the case of London 2012, close to half of the Elite funding (48%) was distributed among only five Olympic sports, leaving the remaining 22 to divide the other half (52%). These five sports were Athletics, Cycling, Rowing, Sailing and Swimming.

Table 4.1 is a result of data analysis, showing how the UK Sport funding for the London 2012 Olympiad has been distributed. In addition to the above mentioned five sports which received over £20 million each, 12 Olympic sports each received around the £5 million figure or even less. Seven sports received between £6 and £10 million, and only three other were allocated more than £10 million, even though still considerably less than the five sports at the top. It is arguably any surprise then that half of the London'12 medals were won by these five sports. Referring again to the closed relation between funding and performance it is realised some might oppose to the above statement by saying that these sports have received most of the funding due to their previous successful performance. And as already suggested, when looked on an individual basis, concerns could be raised in regards to the objectivity of the decisions made to target investment in these few sports only, and the criteria used to measure their performance.

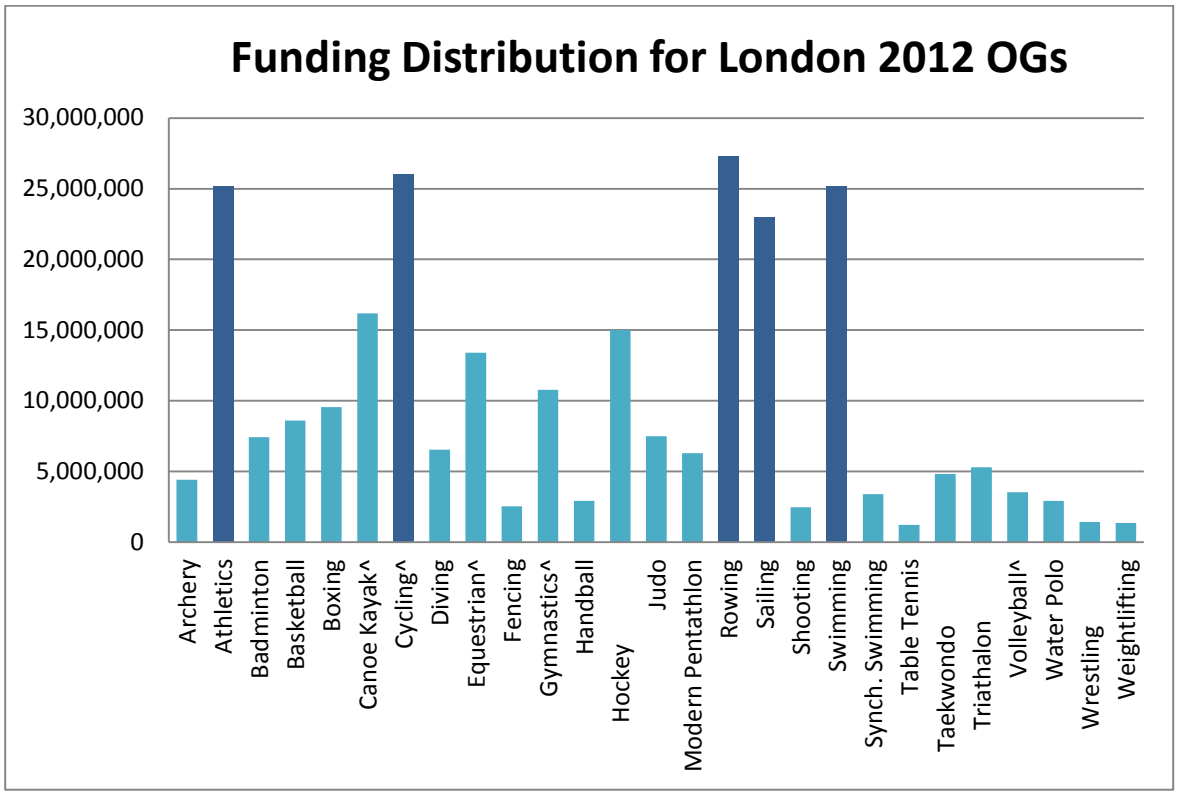


Table 4.1

Table 4.2 shows all the medals won by Team GB in the London 2012 Olympics divided across the sports. Based on this chart it could also be concluded that 16 sports have won medals in 2012, seven of which have won between 3 and 6 medals. The only exceptions are Cycling and Rowing, bringing respectively 12 and 9 medals for the British, accounting for a third (approximately 33%) of the total number of medals won by Great Britain in these OGs. Following logical assumptions based on these analyses, the fair and realistic funding distribution could be put under serious doubt as regardless of their funding, several sports have won between 4 and 6 medals (e.g. Athletics, Boxing, Equestrian, and Sailing). Furthermore some have doubled their targets (Gymnastics), while others have failed halfway through to reach theirs (Swimming). It is also worth acknowledging that half of the sports, outside the top Five have not won Olympic medals in London'12. These same sports have also received the lowest funding, leading to current and future challenges in developing potential and determining success due to insufficient finances and resources to support elite talent development.

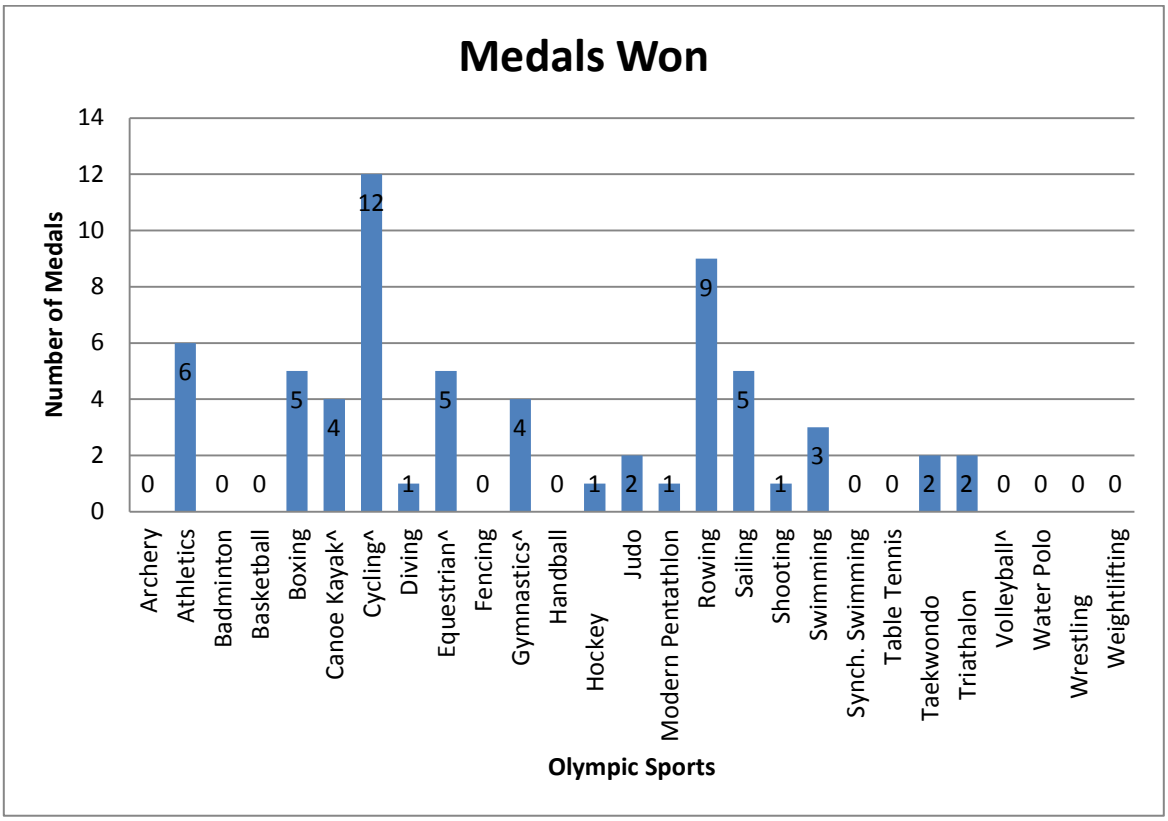


Table 4.2

Two: *"UK Sport funds only UK World Class Programmes, approved by a UK SNGBs, which is recognised by an International Federation"*

The second of the Investment Principles is aimed at funding World Class Sport Programmes which could lead to Olympic/Paralympic competitions and are managed by the International Federation and NGB of the particular sports. The requirements of both this principle and the WCPs lead to a complicated funding process, where the investment procedure suggests being strict and difficult to follow.

Three: *"Awards are based on current performance and future medal potential, using an investment model that links resources to athlete places"*

In this third principle, UK Sport clearly demonstrates that investment will be focused on those athletes within targeted sports, considered more capable of reaching the medal podium. While the approach may seem logical and fair value for money the criteria used to

measure and justify the potential of elite athletes and sports remains unclear and vague. For example, based on outcomes of analyses (including the above Tables 4.1 and 4.2), it could be seen that several sports, with significantly less funding, have met or exceeded their medal targets, winning a similar or higher number of medals to these of three of the top most funded sports in the London OGs. The two exceptions again are Cycling and Rowing, which have won 12 and 9 medals respectively and will be discussed later in this chapter. Table 4.3 lists three of the sports with highest funding and compares the number of medals won in these sports with four others, which have achieved similar or better performance in 2012, despite of receiving significantly less funding.

Olympic Sport	Funding for London 2012	Medals won
Athletics	£25,148,000	6 (target 5-8)*
Sailing	£22,942,700	5 (target 3-5)*
Swimming	£25,144,600	3 (target 5-7)*
Boxing	£9,551,400	5 (target 3-5)
Canoeing	£16,176,700	4 (target 3-4)
Equestrian	£13,395,100	5 (target 3-4)
Gymnastics	£10,770,600	4 (target 1-2)

Table 4.3

In the case of Athletics, since the Olympics of the Millennium it could be noticed that while funding for the sport has been gradually increasing, performance (in terms of number of medals won) has not reflected the same direction of progress (see Tables 4.4 and 4.5 for comparison). Furthermore, it is of importance to acknowledge that in the Olympic Games of 2012 in Athletics alone, Team GB have been represented by 77 male and female athletes competing in 47 events (IOC, 2013). Despite of the number of athletes and variety of events, the target has been only 5-8 medals (The Guardian, 2012). Based on these arguments it could be criticized that a vast amount of funding has being targeted at a small selection of elite athletes in a sport with considerably big capacity. This argument further suggests for over-spending of money in the sport, while failing to optimize its potential.

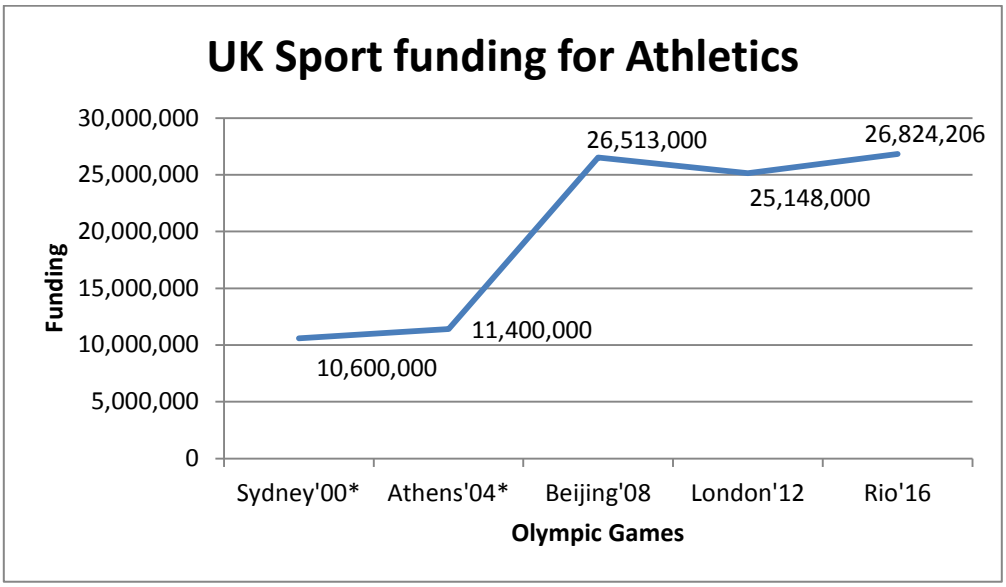


Table 4.4

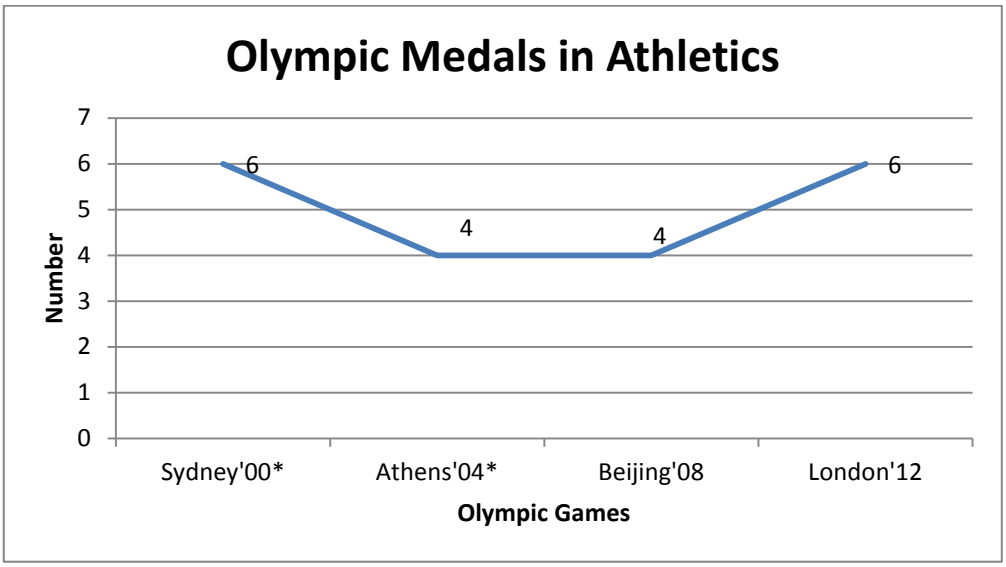
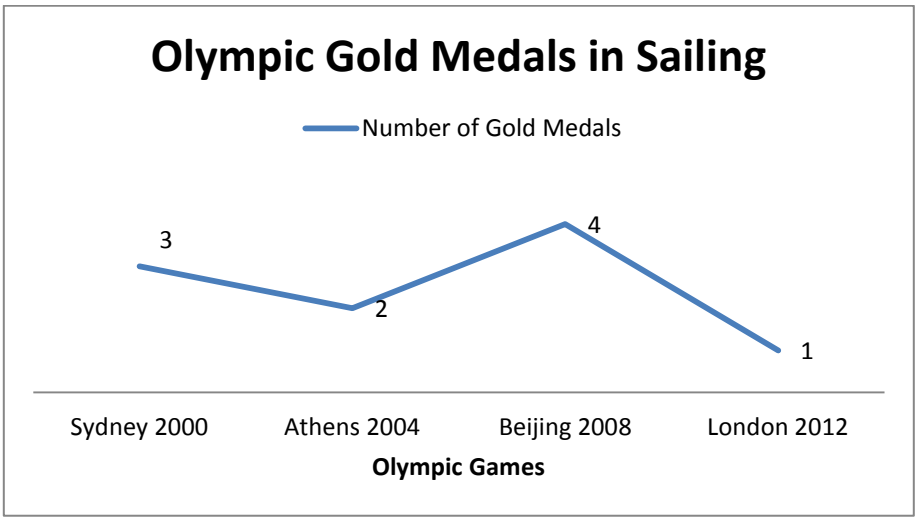


Table 4.5

In 2012 Swimming has widely featured in the media, as the sport failed half way through to reach its target by winning only 3 medals of expected 5-7. While British Swimming has been held responsible for this failure (BBC, 2012), by looking at the historical win-loss ratio the objectivity of the target set for 2012, could be questioned. The Beijing OGs in 2008 were the only Games at which British swimmers have achieved an impressive success since the Millennium Olympics (IOC Archive, 2013). In the 2000 OGs swimming did not win any medals and in Athens'04 it won only two (IOC Archive, 2013). Based on the poor performance, justified by numbers of medals won, funding for swimming towards the 2008

Olympics was projected to be reduced. However, it was on the build-up to these Olympics (the Olympic cycle of 2005-2008) when in 2006 UK Sport expanded their funding and British swimming received a funding injection of £20 million (Green, 2006). Indeed, the sport won a total of six medals from the Beijing 2008 Games, and according to the media, UK Sport and the government (DCMS), the increase in investment in the development of British Elite swimmers contributes to this outstanding performance (The Independent, 2012). As mentioned earlier, in the case of swimming there is a suggestion that no pattern for winning is present in this sport to justify the increased vast amounts of money spend for its elite level. The failure to reach the set medal targets further suggests that funding alone is not enough to lead to success. Nevertheless, towards the Rio'16 Olympics Swimming is still projected to receive an investment of over £20 million (UK Sport, 2013).

Sailing is the other Olympic sport in the top most funded by UK Sport, in which concerns are raised after analysing its performance. In the past four Olympics the sport has maintained a strong overall performance winning 5 medals in Sydney, Athens, and London, and 6 in Beijing (IOC Archive, 2013). It could be argued that the number of Gold medals is decreasing and a threat of surpassing could arise unless strategic and adequate changes in elite athletes' development and preparation are presented (Table 4.6). Furthermore, with the exception of the 2008 OGs, where more team Gold medals have been won, in the other three Olympics some of the medals have been won by the same athletes repeatedly (IOC, 2013). Such is the case in London 2012, where the only gold for Britain was won by an athlete competing at the Olympic Games for the fourth time (BBC, 2012).



(Table 4.6)

As mentioned previously cycling and rowing are also between the most funded sports by UKS. The case of cycling is of particular interest as in the 2012 OGs cycling won a total of 12 medals, exceeding their target, which has been 6-10 medals (The Guardian, 2012). With its successful performance the sport well deserved an increase in funding towards the following Olympic Games. It is set to receive approximately £30,5 million from UK Sport for the Rio Olympic Cycle (UK Sport, 2013). It is of particular interest to note that in the 2008 Olympic Games of China, British cycling won 14 medals in total. In contrast to London 2012, British Olympic sports did not have medal targets to achieve for the Beijing OGs (BBC, 2007). Cycling was considered capable of winning at least 6 medals (BBC, 2008). Regardless of the sports actually winning twice more medals, the London target remained a similar figure to the 2008 forecasts. Logically, the objectivity of the 2012 target for British cyclists could be criticized as an increasing funding is expected to lead to higher medal targets as well. Indeed, cycling well deserves to be set as an example of how a high performance British sport should be run (BBC, 2012).

Analyses of rowing suggest that the sport could also be set as a role model in British elite sports. From a target of around 6 medals, in the 2012 Olympics rowing obtained 9 medals, surpassing its own number of medals won in a fourth consecutive Olympiad. Since the Millennium Olympics, British rowers have won respectively 3, 4, 6 and 9 medals (IOC, 2013). The evidences of improving performance and successful development have led to a stable increase in funding, exceeding £32 million for the Rio cycle (UK Sport, 2013).

Criticisms could be addressed to the amount of funding allocated to the sport and how it has been further used, as despite of its successful performance, participation figures for Rowing have been reported as decreasing since 2005 – 2006 by Sport England in the yearly-run Active People Survey.

Four: *"UK World Class Programme is a privilege, not a right"*

UKS aims to target optimal funding within the selected sports, which have showed or strive to expand their medal potential. Vice versa, where sports fail to prove or defend their capabilities, the funding provided will be reduced, if offered at all. Elite funding by UK Sport is aimed to reflect excellence in performance accordingly (Investment Guide, 2010). The overall investment table for Rio 2016 shows an increase in the total amount of money to be spent for the 2016 Olympic and Paralympic Games. As UK Sport states in an announcement, the target for the British nation will be to become the first ever nation aiming to surpass its own medal success in successive Olympiads (UK Sport, 2013). For that purpose the overall medal targets are aimed at winning 64 (66) Olympic medals compared to 63 (65) from London'12 (depending on whether self-funded sports are included in the target, regardless of not being funded by UKS), and 121 Paralympic in comparison with finishing with 120 in London'12 (BOA, 2013). These new targets are followed by a £41,5 million total increase in funding. Tables 4.7 and 4.8 show how much of the total UK Sport funding in both the London and Rio Olympic cycles has been allocated to Olympic Sports and how much of it to Paralympic Sports. Figures are based on publicly available Olympic funding information from UK Sport (2013). Again criticisms have been addressed in regards to the objectivity of funding decisions and the just and realistic targeting setting. The vast amount of money to be invested in achieving a high target further stress on the importance of taking into consideration the overall influence of the many different factors on successful sport performance (De Bosscher, et.al, 2008). Failing to oversee the broad picture and undertake objective and strategic actions could result in failure to reach targets.

In the 2012 OGs British athletes received funding from UKS of around £264 million and won 63 medals (excluding the two medals in Tennis as it is not funded by UK Sport),

raising the average cost per medal close to £4,2 million (BOA, 2013). In contrast, the Paralympic funding for the 2012 Games was approximately only a fifth of the total. British Para-athletes won 120 in total, lowering the average cost per medal to less than half a million - £410 453 (based on data from UKS and BOA, 2013). Even though it is acknowledged that an Olympic medal not only costs more, but it is valued higher than a Paralympic, the contrast in the figures could not be dismissed.

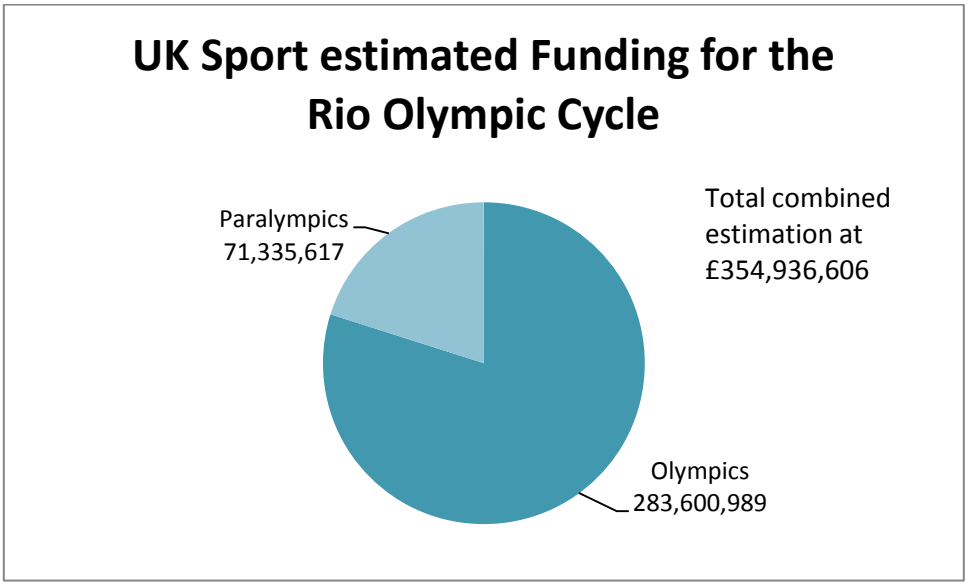


Table 4.7

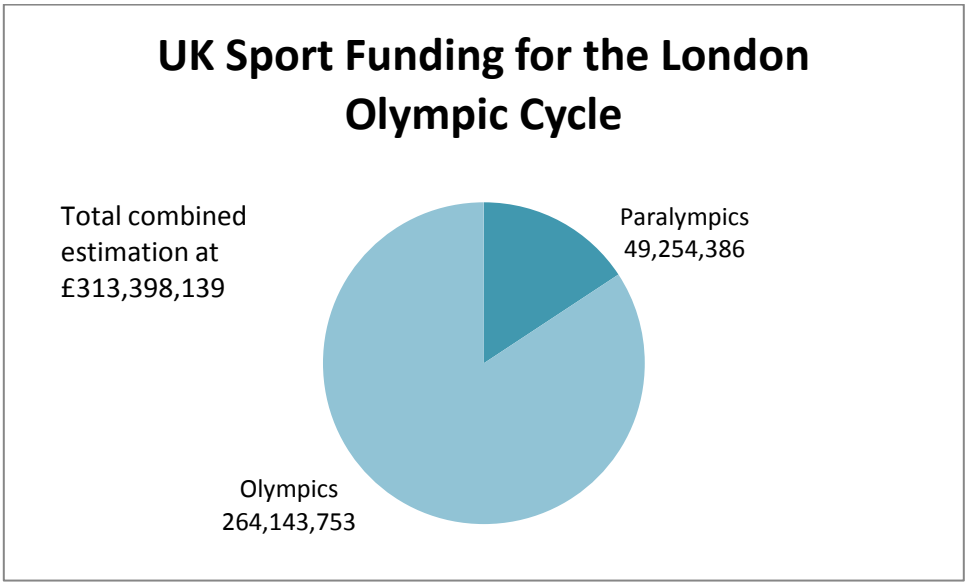


Table 4.8

Regardless of the increase in funding, when analysed individually, it becomes evident that it is still the same five sports targeted to receive investments of over £20 and £30 million. This is again close to 48% of the total Olympic funding for Rio (similar to the 2012 OGs). Furthermore, only five other will receive funding over £10 million, which accounts for approximately 28,4% leaving more than half of the Olympic sports to divide the remaining 23,6%. The distribution of the investments also highlights UK Sports' strategy of target funding. Critical questions in this case could be addressed in regards to the objectivity and realistic measure of the high target, as it could be logically assumed that the less sports/athletes are selected to receive the majority of funds, the higher the pressure of winning placed upon them is, due to the concentration of higher medal targets and expectations to meet.

Five: *"UK Sport aims to cover a whole Olympic Cycle with four-year investments, based on eight-year development plans"*

In other words, UKS recognises the need for both short-term and long-term investments and aims to strategically spread funding over the elite performance and development within the current and the following Olympic Cycles. It is known that UK Sport funds elite sport on three levels – talent, development and podium (UK Sport, 2013). It is difficult to follow how the funding is being distributed to these levels and further on utilised. Based on UKS Investment Principles two main suggestions could be given. The first one is that the funding is not equally distributed among the three levels. The second is that it is expected athletes at the podium level to receive greater funding support as there is higher return on investment (e.g. winning Olympic medals could be seen to bring more benefits than taking part itself) and it is expected in the short-term (within one Olympic cycle).

As Martindale et.al (2007) have stated, while it may be agreed that talent grows with experience in some sports funding still tends to be targeted in a considerably small selection of young athletes, considered to hold the highest elite level potential. Such occurrences lead to an assumption that in many cases the importance of long term investment and development of young athletes is eclipsed by enjoying the tangible benefits of the short term success. In such cases it is also common for the short term achievements to appear as a

one-off (Martindale, et.al, 2007). It is important for the relation between the concepts of funding, performance and participation not to be dismissed. Failing to acknowledge their inter-dependence and influence could results in different implications. Such could be an underdeveloped or limited talent pool, short term achievements, increased threat of surpassing by competitors, the misuse funding and resources, and failure to develop and sustain full-time athletes (Houlihan and Green, 2005). Another aspect of importance is that often the return of talent investment is more likely to be seen in the long term. This time period could also be longer than one or two Olympic cycles. It is necessary for responsible sport institutions to develop strategies in a way which does not neglect the continuous need for young athletes' development, while also investing in the four to eight years long performance programmes. By successfully implementing such strategies potential elite athletes, currently outside the targeted, would still have opportunities to advance and demonstrate their (medal winning) capabilities.

Six: *"Awards are reviewed annually to ensure maximum impact of resources available"*

The aims of this principle involve annual review of funding from the National Lottery and Exchequer (and the private sector) in order to maintain an optimal investment in the 'right' high performance sports. While, the requirements and evaluation criteria are standardized in order to be applied to all sports, in some cases they may not be able to reflect the reality and conditions of sports at a particular time, due to changing environment and varying circumstances.

Seven: *"Core funding provided for sport technology, science and medicine is proportional to athletes' population and location"*

UK Sport has successfully recognised the importance of developing sport science and medicine, as well as technology, as a key component in improving the UK Elite sport system. It aims to provide sufficient relevant investments towards building a strong infrastructure, knowledge and skills, and cost-effective athletes' support and services. Being proportional to location and population of athletes, such services and support are

expected to be more accessible in places with higher concentration of elite athletes and vice versa.

Eight: *"Centrally funded support programmes/services are limited to universal need and specialist areas to support excellence in Olympic and Paralympic sports"*

UKS has adopted a discretionary strategy of investment on the basis of assessing where a need for high performance system is evident and to influence international sport development. For example, research in different areas of sport and innovation, opportunities for talent development, elite coaching programmes, and aiming to host major sporting events in the country and take part in such internationally.

Nine: *"The principles for Olympic and Paralympic investment are the same, but the models reflect different domains"*

UK Sport has established several differences in the Olympic and Paralympic domains, related to the frequency and depth of competition and the length of athletes' development pathways. The intention of UKS in this principle is to maintain a fair and equal investment in both Olympic and Paralympic athletes and sports, while taking into consideration their unique characteristics.

The difference in financial and non-financial support is still significant. While it is accepted that the Olympics have higher popularity in the world of sport, it is in the aims of UK Sport to contribute to the development and stability of the Paralympic Games and sports. It is not only important for the UK to recognise the potential of its Paralympic athletes (in the past four Olympiads GB has been in the top three most successful Paralympic nations), but to invest in the development of their sports on a national level (i.e. better training conditions for all levels, accessibility, and increasing participation), (IOC, 2013; UK Sport, 2013).

Table 4.9 and 4.10 respectively show the London 2012 funding distribution and medals won per Paralympic sport. In total, the overall funding from UK Sport has been estimated approximately at £49 million, with 120 medals won. According to London2012 statistics,

304 British Para-athletes have taken part in 19 Paralympic sports (combined as one are Road and Track Cycling, and Football 5 and 7 a-sides). In comparison, the 554 British athletes who have taken part at the 2012 Olympics have received four times higher funding and won 65 medals in 29 sports, (BBC, 2012). A note should be made that even though Olympic tennis and football, and Paralympic Football do not receive funding from UK Sport, they have been included in statistical comparisons as Great Britain has been represented in these sports as well, regardless of the sources of their funding.

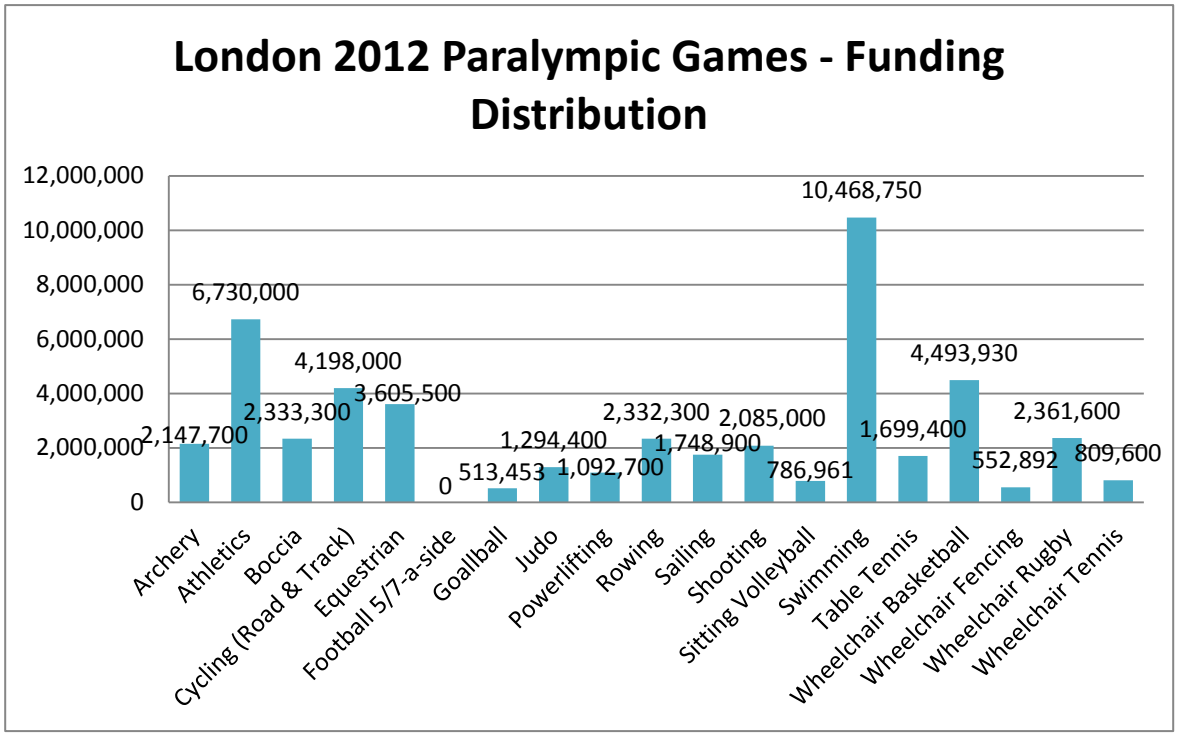


Table 4.9

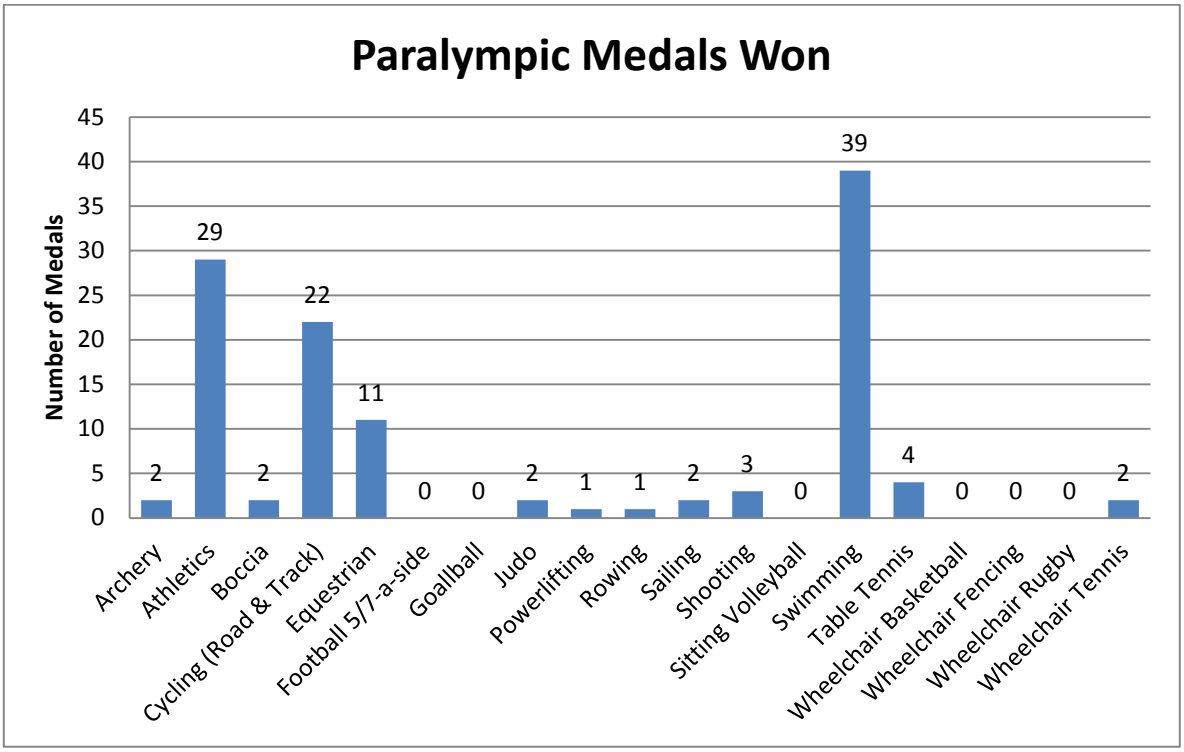


Table 4.10

Ten: *"UKS investment recognises best practice in team-ship, openness and accountability in supporting UK athletes"*

UK Sport recognises that effective partnership is a crucial component in maximising the UK high performance system and support elite its athletes thrive for success. Overall, it aims to build a strong network of people and organisations working together to support British Olympic and Paralympic athletes develop and expand their winning potential.

The Ranking and Prioritisation of Elite Sports

According to UK Sport (2010) a leading principle in the No Compromise policy is to prioritise financial resources to the sports considered to have the highest chance of winning Olympic medals. A sport system is required with the help of which sports can be classed and categorised based on their performance (UK Sport, 2010). Appendix 3 is taken from UK Sport's Performance Investment Guide (2010) and shows the 11 ranking bands created to help merit British Elite sports.

The No Compromise strategy aims to allocate resources to as many sports as funds allow (Performance Investment Guide, 2010). However, following the sport-by-sport distribution of funding it could be seen that there are drastic differences between figures, resulting in vast amounts of money being invested in a small selection of sport, while others receive very little or nothing. For example, as already discussed, the top five most funded British Olympic sports have received approximately 48% of the total funding available for the London Olympiad. A certain negative impact for those sports which receive little or no funding could arise in terms of inability to develop and progress, due to insufficient funding.

It is said that the system used to rank British Elite sports reflects the latest available data on current performance, considers future potential and takes into consideration achievements in the recent past (Performance Investment Guide, 2010). With the exception of measuring future potential, which involves some forecasting of performance, measuring the current and recent-past performance is based on facts and historical figures (e.g. number of medals won, targets met). It could be logically assumed that this approach has been developed to provide an accurate sports merit. Nevertheless, as idealistic as it may be, arising implications in its practical application are almost unavoidable. Examples could be given with swimming's classification – high or increasing funding regardless of the unstable performance (see Tables 4.11 and 4.12).

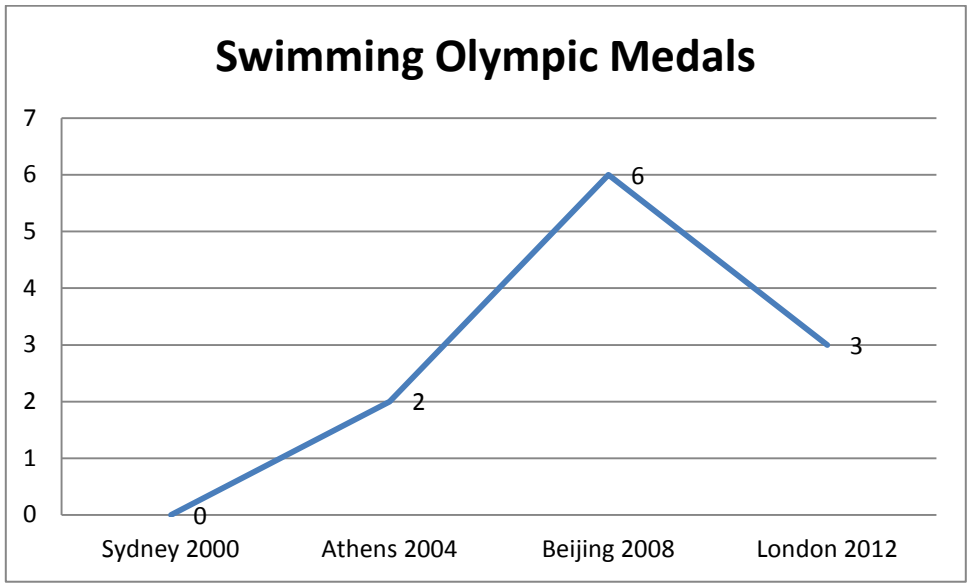


Table 4.11

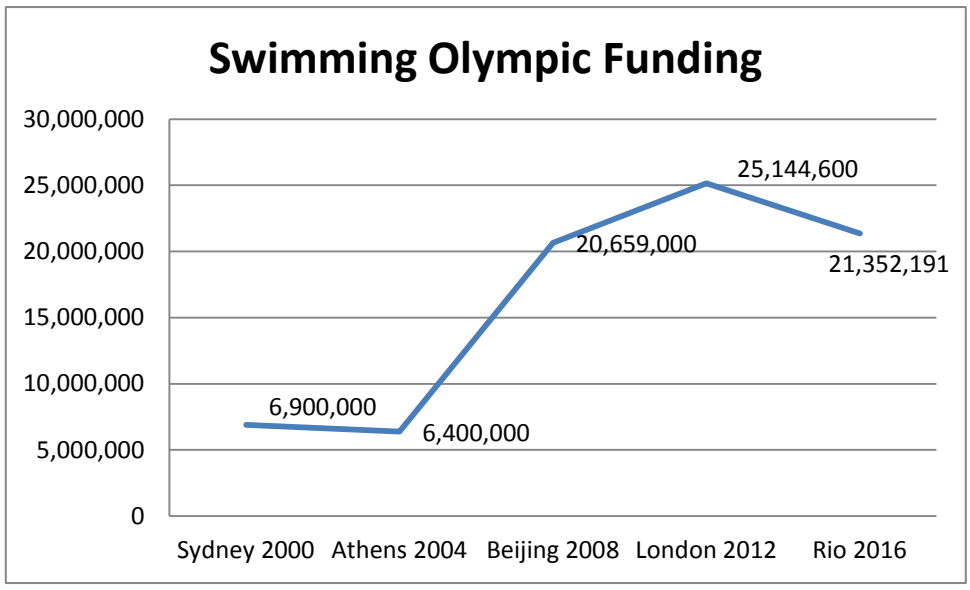


Table 4.12

The above arguments raise concerns in regards to the system used by UK Sport to allocate funding based on performance, as in some case measuring performance by number of medals won may fail to fully recognise the potential of a sport or in the other extreme – to over-estimate its prospects. The 'field of play' achievements may not necessarily reflect the progress of a sport, as athletes' success could be influenced by variety of factors, some being beyond people's control (De Bosscher et.al, 2006). Referring back to a statement based on Sam (2012), it should be realised that it is not enough to base funding on (field of

play) performance, while successful performance itself depends on the provision of sufficient funding.

Sport at the grassroots level – Talent Development and Increasing Participation

Sport England's responsibilities are concerned with grassroots sport development and increasing participation (Sport England, 2013). The Sport Council is both funded and accountable to the Department for Culture, Media and Sport, and it receives public funding through the National Lottery and Exchequer (DCMS, 2013). From the DCMS transparency data review it becomes clear that it is the DCMS allocating the total funding for Sport England, but it is the council itself deciding upon its further distribution to different sports and projects. In this section grassroots development and participation will be the two main concepts of interest as they not only represent the work of Sport England, but have influence on elite levels of sports as well.

The Whole Sports Plans

While some authors term Sport England's approach as "investing more money in fewer sports" (Girginov, 2008), there still are 46 National Governing Bodies receiving financial support through the Sport Council (Sport England, 2013). Based on Sport England data (2013) for the period of 2009-2013 (the Olympic Cycle of London 2012) approximately £482 million of public funds have been invested in the Whole Sports Plans. The figure is expected to reach £494 million for the 2013-2017 period (towards the Rio'16 Olympics).

Some key points should be acknowledged within these analyses. Not all sports funded by Sport England are Olympic and Paralympic sports (e.g. squash water-skiing, baseball, and dance). In addition, some sports may not receive elite funding from UKS, but receive grassroots investment from SE (e.g. football, rugby, golf, tennis). Nevertheless, if to take Olympic sports only, there is a significant contrast between sports in terms of the amounts of funding allocated. Tables 4.13 and 4.14 below are exempts from the 2009-2013 and 2013-2017 Sport England WSPs. The highlighted sports include the five most funded by UKS and the four previously discussed to have succeeding performance.

(SE 2009-2013 WSP, Table 4.13)

(SE 2013-2017 WSP, Table 4.14)

According to Sport England (2013), in order to qualify for funding every sport is required to develop and present a Whole Sport Plan with detailed procedures of how investment will be utilised. Since the funding is not equally divided and it is determined by the potential of each WSP, logically, it could be assumed that those sports with better funding utilisation plans will receive more money. In addition to previous conclusions based on comparative analysis of selected Olympic sports it is still true that some sports, with considerably less funding maintain (or even improve) their successful performance and medal winning potential. In particular this statement could be related to Boxing, Canoeing, Equestrian and Gymnastics in contrast with Athletics, Swimming and Sailing (as per Table 4.3). Concerns could be raised in regards to the objectivity of the funding distribution and the relation between plans and results.

The Olympic Games are between the best examples demonstrating that while the bidding stage has crucial importance in winning the rights for a project, it is also becoming increasingly important for the promised post-event results to be presented as part of those bidding plans (Chappellet, 2008). The suggestion here is that the same principle could be applied to funding of British Olympic sports at both the elite and grassroots levels as in order for investments to be sufficient pre-agreed targets should be met and results achieved. A certain point to be acknowledged is that the set targets themselves need to be objective and realistic in order for the results to be both successful and sustained over the long-term.

A Breakdown Review and Analysis of Sport England's Investment Principles for the cycle of 2013-2017

Sport England Investment Principles 2013 - 2017
1. Sport England investment in NGB Whole Sport Plans for 2013-2017 is a privilege, not an entitlement
2. Funding will be awarded on a competitive basis to NGBs which put forward strong plans and have a good track record of delivery
3. Whole Sport Plan investments must deliver one or more of SE's talent and participation expected outcomes
4. From the total investment available for participation, SE expects 60% to benefit

	young people (aged 14-25) and 40% to benefit the rest of the adult population
5.	NGBs whose sport is played in schools must deliver a robust transition programme, which creates links between schools with club and community sport
6.	NGBs will need to demonstrate how they are to connect, work together and have an impact on participation
7.	Value for money is a key consideration
8.	A Reward and Incentive fund will be allocated during the cycle to NGBs who perform exceptionally
9.	To be eligible for WHS funding, National Governing Bodies must meet high standards of governance and financial control, which will be in line with the UK Sport and DCMS requirements

Overall, the 2013-2017 WSP is set to be more ambitious and determined to transform mass sport in Britain. The higher targets from Sport England will require bigger expectations from NGB's performance, leading to greater incentives for excellence or harder penalties for failure (NGB Investment Guide, 2012). In summary, even though with higher targets and more money to be invested, NGBs will still be expected to demonstrate consistent and effective measures in increasing participation numbers (including in disabled sports) and develop talented athletes (Sport England, 2012). Furthermore, sport participation will continue to be measured independently through the Active People Survey to ensure results are accurate and credible (Sport England, 2012).

It is of relevance to acknowledge that as part of the London 2012 Legacy, the Office of Disability Issues together with the DCMS and other authorities have set to work towards two main objectives. One being increasing the opportunities for disabled people to participate in sport and physical activity, and the other to recognise and transform disabled people's contribution and involvement with society through the phenomenon of the Olympic Games (ODI, 2013). In addition, policies related to these two objectives could be seen in Sport England's Whole Sport Plan Investment Guide. However, relevant actions are yet to be taken towards their implementation, as well as potential impacts to be recognised.

According to Sport England (2012), in addition to increasing numbers of young people, adults and disabled sports participants, there is a further aim of minimum of 30 sports to have their Talent Pathways developed to ensure athletes grow their potential. It is also said that *"no more than 25% of the total funding available (approximately £450 million) will be allocated to Talent"* (Sport England, 2012). The remaining amount will be invested towards Participation. Even though individual NGBs' proportions could vary overall, the 25% account for only £112,5 million of the total. This amount is to be allocated in a minimum of 30 sports (or more), for the entire funding cycle (4 years), and not per year. As an approximate example, if the 25% are to be equally split in 30 sports, each sport will be expected to develop and improve its Talent programmes and support potential athletes with less than £4 million available for all four years of the cycle. It could be logically assumed that Talent development programmes will struggle (e.g. with supporting and retaining talented athletes) and could be ineffective due to the lack of sufficient funding. This argument further determines the importance of realistic and objective funding distribution from the relevant sport organisations.

One: *"Sport England investment in NGB Whole Sport Plans for 2013-2017 is a privilege, not an entitlement"*

As in UKS, the first principle here Sport England will target funding to those sports, which are more likely to deliver positive outcomes. Namely – to sustain participation and to improve Talent Pathways. Regular performance review (once or twice a year on a four year basis) will be carried out as where sports fail to meet requirements or deliver outcomes, funding will be reduced or withdrawn. Vice versa, there will be a contingency budget allowance to increase incentives for out-performing sports. While this first principle could be seen as fair and objective, the measurement criteria itself remains unclear.

Two: *"Funding will be awarded on a competitive basis to NGBs which put forward strong plans and have a good track record of delivery"*

There are two particular aspects of interest within the second principle. It could be suggested that tracking performance from the 2009-2013 WSP will be of key importance,

as it is seen as a starting point for investment decisions (Sport England, 2012). It is nowhere to be mentioned whether the 'track record' will include other previous NGB plans or it is merely the most recent WSP assisting decisions in funding distribution.

Contradicting their own statements, in the second principle it has been stated that the amount of funding available is in fact limited and targeting to certain sports is necessary. Yet, by comparing the total funding figures in the current and previous Whole Sport Plans, it could be seen that for the 2013-2017 cycle Sport England will invest approximately £12 million more than in the 2009-2013 cycle (see table 4.15). Nevertheless, in addition to track records, funding will be higher where sports (and NGBs) have produced better talent and participation development plans. Criticisms could be raised as better structured plans in some sports does not necessarily mean that others cannot progressively deliver effective talent development programmes and strategies for increasing participation, but allocating funding according to proposed plans could potentially limit sports to implement their plans due to lack of funding. Insufficient support of the Talent pathways could limit Elite sport development as the crucial basis to build success upon it would not be consistent.

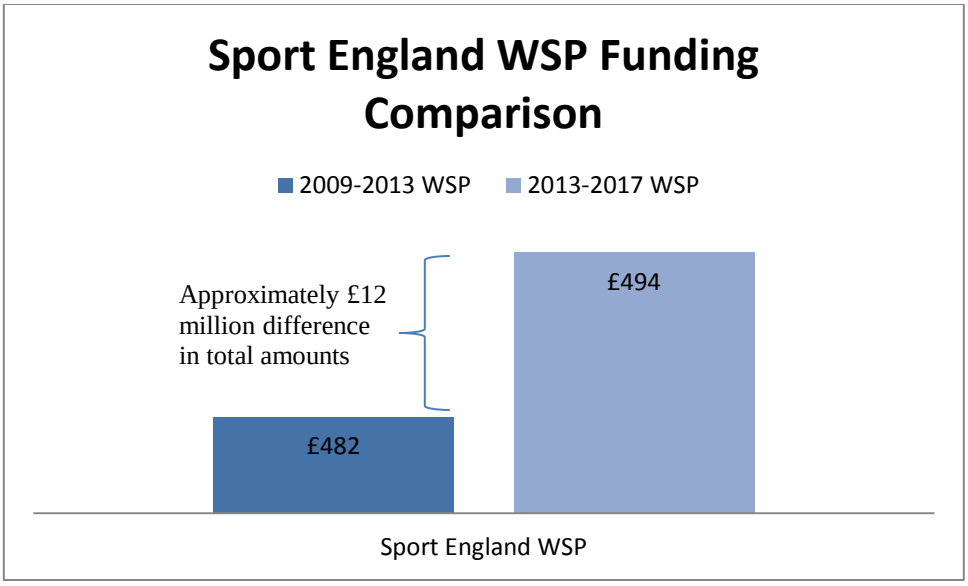


Table 4.15

Three: *"Whole Sport Plan investments must deliver one or more of SE's talent and participation expected outcomes"*

Principle Three could be classed as 'strict and fair' – as funding is not a privilege (it is suggested to be performance based), there are a number of requirements for NGBs to be achieved and expectations to be met in order to win their funding. For example, expected outcomes include growth in participation (young people, adults and disabled), sustaining participation numbers, and high quality talent development to be linked with UK Sport's Elite and World Class programmes (Sport England, 2012).

The nature of these objectives is such that results are more likely to be delivered over a time period longer than one WSP cycle as the development of athletes' potential could require more than one Olympic cycle for them to reach peak performance (Green and Houlihan, 2005). In addition to previous discussions regarding targeted investment and limited amount of funding available, the successful achievement of Principle Three could face many complications. It could be assumed that funding decisions based on the current and most recent performance only could be to certain extent inaccurate in identifying which sports should receive more funds than others.

Four: *"From the total investment available for participation, SE expects 60% to benefit young people (aged 14-25) and 40% to benefit the rest of the adult population"*

Sport England recognises the importance of involving people from different age groups with sport and physical activity, as well as the benefits it brings not only in increasing participation numbers, but the economic, social and health welfares, too.

According to SE (2012) programmes targeting people younger than 14 years of age are unlikely to receive investment. Within this principle it is also stated that the ratio will not be applied uniformly to individual sports. Acknowledging the age profile and unique characteristics of each sport has a significant role in athletes' development. For example, even though it is in a process of transformation, in sports like gymnastics (whether it is rhythmic or artistic) the age range of athletes is still considerably young. Gymnasts are likely to enter the mass level of the sport when they are 5-7 years old, start competing after

several years and reach their peak in the junior and senior levels. A few manage to maintain their high performance once their reach 20+ years of age, and common reasons include competing at international level and participation in major sporting events (FIG, 2012). According to a comparison of athletes' profiles, this is particularly the case with gymnastics in the UK (FIG, 2013; British Gymnastics, 2013).

Five: ***"NGBs whose sport is played in schools must deliver a robust transition programme, which creates links between schools with club and community sport"***

Retaining young people in sport is between the biggest challenges for NGBs. Sport England will invest funding in well-developed programmes aiming to support athletes, and particularly students, to remain in sport once it is no longer part of their compulsory subjects (Sport England, 2013).

Six: ***"NGBs will need to demonstrate how they are to connect, work together and have an impact on participation"***

Previous Whole Sport Plans (2009-2013) have demonstrated the importance of reaching all levels of mass sport when delivering targets (e.g. school, local, regional, etc.), especially if aimed at increasing participation numbers. SE will have high expectations from NGBs to present well-developed and strategically focused plans in regards to helping more people play sport (Sport England, 2013).

Seven: ***"Value for money is a key consideration"***

It is said that almost half of Sport England's investment will be towards NGBs and the Whole Sport Plans for 2013-2017. As a consequence, the Sport Council will seek greater value for the money invested (Sport England, 2012). Plans will be tested in order for the extent to which they involve the most optimal use of resources to be identified, as well as their potential to deliver targeted outcomes (Sport England, 2013). This Investment Principle could also support an earlier statement regarding the increasing importance for sport organisations not only to win projects (and funding for such) with strong bids/plans, but also to demonstrate they are actively working in delivering expected results and keeping promises. To give practical examples, in London's winning bid to host the 2012

Olympics, the proposed Legacy plans promised to use the Games as a tool to increase sport participation in the UK (Girginov and Hills, 2009). Another practical example could be given with Whole Sport Plans, where NGBs propose their sets of actions and strategies to deliver expected outcomes (Sport England, 2013).

Eight: *"A Reward and Incentive fund will be allocated during the cycle to NGBs who perform exceptionally"*

Based on previous experience, Sport England recognises that some NGBs are likely to exceed expectations and others to demonstrate unforeseen potential. Retaining flexibility is essential in order for the organisation to appreciate and reward exceptional performance or to take advantage of arising opportunities. For that purpose an additional amount of funding has been estimated to be awarded to those NGBs who demonstrate greater performance than originally projected.

Nine: *"To be eligible for WHS funding, National Governing Bodies must meet high standards of governance and financial control, which will be in line with the UK Sport and DCMS requirements"*

The internal and external sport organisation and governance strategies of NGBs will be regularly assessed over the current funding cycle (2013-2017). Those who fail to meet Sport England's criteria or show weaknesses will have their funding withheld or withdrawn (SE, 2013). Building upon improvement and maintaining effective government, finance and control frameworks is of key importance to progress and sport development. A certain point of relevance could be made here as this principle is one, which could be given as an example of the relation and influence between funding and performance working as a two-sided process at the elite and at the grassroots levels. Even though it is suggested there is a pattern for funding being based on performance (Sam, 2012; Garrett, 2004), the successful performance is also dependant on sufficient funding.

A relevant point of discussion in this section could be given with the case of British Sailing, in which contradictions and impacts of some of the above principles could be seen. In terms of structure and the nature of the sport, sailing is set to have unique differentiating

characteristics in comparison with other sports in the UK (Houlihan and Green, 2008). The clubs' structure is said to be "financially stable and independent" (RYA, 2012). To some extent this is due to a set of membership strategies and policies mainly at the grassroots level. Based on that it is further assumed that the Elite funding from UK Sport will go towards elite sport development and would not be misused for mass sport development (Green and Houlihan, 2008). From Sailing's WSP it could be seen that indeed for the period of 2009-2013 the sport has received some £9.6 million from Sport England towards talent development and participation increase, which compared to other sports is an average amount, The sport is set to receive an even lower figure for the 2013-2017 WSP of approximately £9.3 million. Despite of its independent state and heavy Elite investments, the successful performance of Sailing could be questioned as the number of Olympic Gold medals has showed a significant decrease in the most recent Olympic Games, where Team GB represented the host nation, together with national participation numbers based on data from Sport England's Active People Survey (see tables 4.16 and 4.17). From the IOC' archive (2013) Olympic medals could be followed not only by sports, but by athletes as well. In the case of British Sailing it could be seen that since the Millennium Olympics it has been predominantly the same British sailors competing at every OGs and winning medals for the country. Even though being prestigious for these athletes to win Olympic medals in consecutive Games, it also suggests that talent development at the grassroots levels is poor in supporting athletes with potential to progress to the elite level. Ample measures need to be taken in order for the problem suggested to be identified and solution strategies developed, as it is in many aspects valuable for Britain to sustain its success in Sailing, both in the short- and the long-term.

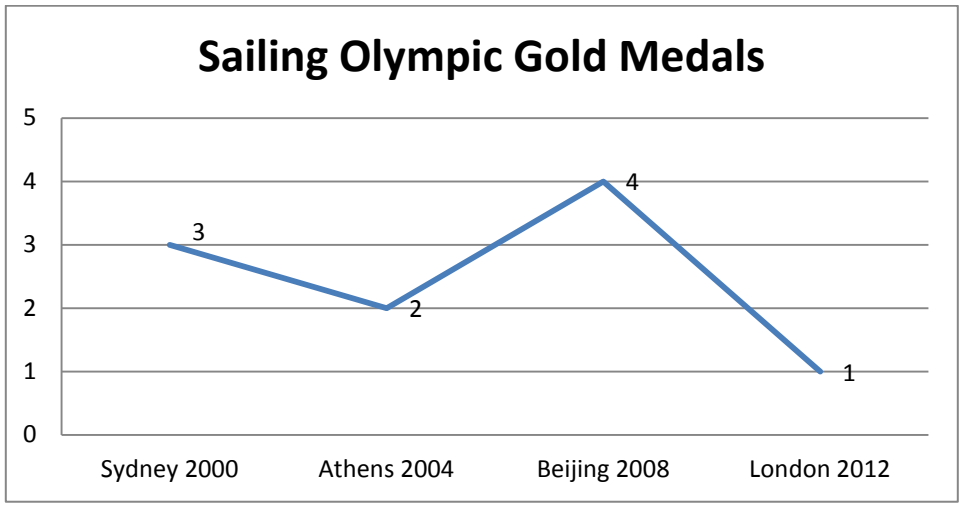


Table 4.16

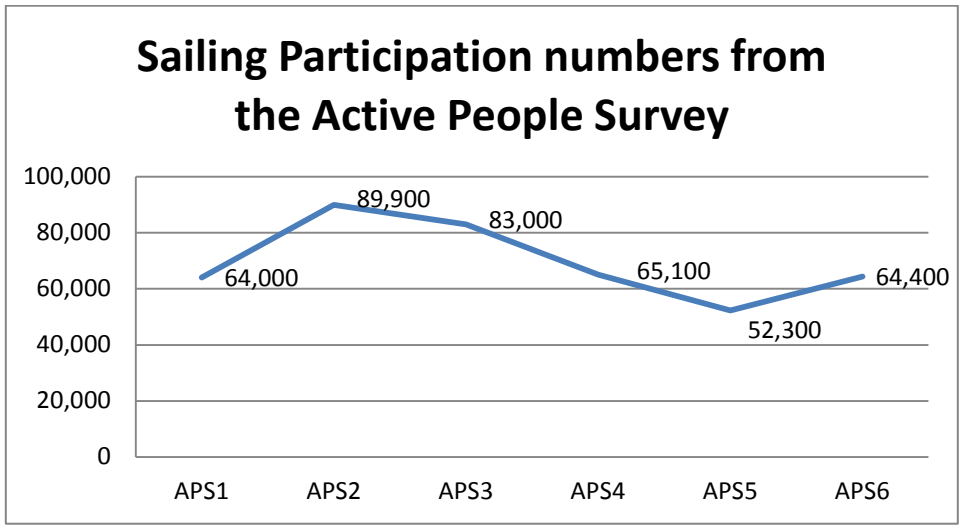


Table 4.17

Overall, the investment principles have been used as an assessment framework for NGB's Whole Sport Plans. When submitting plans for funding, NGBs are obliged to clearly identify how they will work to increase participation (in young people, adults and disabled) and develop talent pathways. There is an additional criteria with four key components set to evaluate the aims within WSPs and to measure their capability to deliver satisfactory results. The key components parts of the weighting criteria have been given different percentage of importance (see table 4.18). The governance of NGBs will be considered and categorised when the funding has been allocated meaning that NGBs with poor governance will have their funding reduced or withdrawn until positive changes have been made.

(Sport England 2013-2017 NGB Investment Guide) Table 4.18

As it is in the beginning of the funding cycle, this yearly review of the 2013-2017 Sport England Investment Principles could provide ground for future improvements, with results yet to be delivered.

Measuring participation - The Active People Survey

The following section will look at sport participation in Britain. In particular, methods of measuring and accuracy of results will be analysed. Sport England's Active People Survey is the organisation's independent method, regularly applied by the Sport Council, to measure national participation numbers in sport and physical activity. However, based on the APS data available, it is difficult to follow participation rates in disabled sports as results seem to be mixed if available at all. Not all of the sports built-in in the survey have provided figures for both measurements (see table 4.19). Such approach leads to insufficient sample sizes and consequently no results available in the few Paralympic sports included (wheelchair basketball, boccia, goalball and wheelchair rugby). Based on this statement, it could be concluded that participation in British Paralympic sports is both difficult to be measured accurately and there is a lack of sufficient research in the area.

	APS 1	**APS 2**	**APS 3**	**APS 4**	**APS 5**	**APS 6**	**Statistically significant change since APS 1**
Limiting disability - Yes	15.1%	16.7%	16.2%	16.3%	17.7%	18.3%	Increase
Limiting disability - No	37.8%	39.3%	39.2%	38.9%	37.7%	39.4%	Increase

(Data from the Sport England APS 6) Table 4.19

Other sport organisations, including NGBs, could also produce similar participation analyses to those in the APS for different purposes. The differences in the methods applied, the sample sizes and variations in final numbers could potentially open relevant discussions. An example could be given with an earlier comparison of participation figures in volleyball in the UK, from two different analyses. One was the Active People Survey and the other one was run by the NGB for volleyball. The difference in the number of participants according to the two institutions is significant and the effective development of the sport could encounter some unnecessary challenges.

The DCMS and Sport England work together to create an effective single measure for sport participation across the nation, and seek to continuously improve the Active People Survey in line with the Sport Council's Development Strategies. With strong significance are also other aspects of the concept of the survey, such as improving the quality and accuracy of results both overall and sport specific, and expanding its geographical and demographical coverage, including changing the age range to 14+ and taking into account cultural differences among the population.

Following the conclusion of the London Olympic and Paralympic Games in 2012 the seventh edition of the Active People Survey was launched. The APS7 will be the first survey to track changes in sport participation in the 12 months after the London 2012 OGs. APS6 analyses cover most of the Olympic year – 2012, including the actual Games, and could provide valid figures for further discussion. The APS2 outcomes could also be used for comparison as they cover most of the 2008 Olympic year and the Beijing OGs. In Sport England's publications it could be seen it is participation rates from the same two editions of the APS that have been compared.

After being released overall results of the APS6 in comparison with APS2 show that from a total of 29 Olympic, sports including golf and rugby, 12 have showed decreasing participation numbers, 7 have had no statistically significant change, only 4 have showed an increase in participants, and the remaining 6 have had insufficient sample size to produce reliable results. The full table can be found in Appendix 2. Looking at the five most funded sports for the London 2012 Olympic Games – Athletics, Cycling, Rowing,

Sailing and Swimming, only two of them had reported an increase in participation rates (see table 4.20).

	APS 1	**APS 2**	**APS 3**	**APS 4**	**APS 5**	**APS 6**
Athletics	3,33%	3,89%	4,16%	4,45%	4,47%	4,72%
Cycling	4,02%	4,26%	4,50%	4,43%	4,15%	4,55%
Rowing	0,10%	0,13%	0,12%	0,11%	0,09%	0,10%
Sailing	0,16%	0,22%	0,20%	0,15%	0,12%	0,15%
Swimming	8,04%	7,83%	7,57%	7,50%	6,62%	6,81%

(Data taken from Sport England APS) Table 4.20

Both athletics and cycling have showed an increase in numbers of participants in the period from 2007-2008 to 2011-2012. Rowing, sailing and swimming, despite their successful performance and heavy financial support in Beijing 2008 and/or London 2012, have indicated decreasing numbers. In addition, it could be seen that overall participation in both rowing and sailing has been extremely low – less than 1%. On the other hand, it could also be seen that even though gymnastics also reveals decreasing participation numbers, boxing shows an increase, while equestrian and canoeing have maintained their numbers. In the case of canoeing, even though its participation figures are regarded to have no statistically significant change, following the reported results it could be suggested that the sport has the potential to increase its figures in future editions of the survey (see table 4.21).

	APS 1	**APS 2**	**APS 3**	**APS 4**	**APS 5**	**APS 6**
Canoeing	0,09% 36,500	0,10% 43,500	0,15% 62,900	0,12% 51,100	0,11% 46,900	0,11% 46,600
Boxing	0,28% 115,500	0,26% 106,800	0,29% 121,400	0,28% 117,200	0,35% 149,700	0,33% 140,400
Equestrian	0,77% 314,600	0,82% 341,700	0,82% 341,500	0,80% 337,800	0,74% 312,600	0,77% 331,000
Gymnastics	0,14% 58,900	0,15% 61,200	0,12% 48,300	0,12% 50,300	0,11% 48,000	0,12% 49,800

(Participation rates taken from Sport England APS) Table 4.21

Do more money in bring more medals out?

Overall, the critical review of different sport policies in this chapter, in combination with academic theory, has been focused on analysing current gaps between the written strategies and the practical decisions executed in regards to British elite sport development. Relevant policies of the Department for Culture, Media and Sport have been discussed, followed by an in-depth discussion of both UK Sport's and Sport England's investment principles, and the impacts of implementing these principles. While UK Sport is responsible for the Elite level of British Olympic sport, Sport England has the responsibility to sustain and develop the grassroots sport level, including talent development and increasing participation. Based on the review of each organisation's investment strategies it could be concluded that a more realistic and objective perspective over both the short- and long-term would contribute to wiser investments and utilisation of public funding in elite sports.

The thorough and critical analyses have led to the conclusion that while more money in sport could positively contribute to improving sport performance, the financial investments alone cannot determine success. As many authors have come to the similar conclusions that there are many factors influencing successful sport performance and they can arguably be all explored within a single study (De Bosscher et.al, 2008; Green, 2006; Sam, 2012), it should also be acknowledged that their influence could also differ according to changing circumstances. Therefore, it is difficult to give a single definition of successful performance or categorise factors according to the strength of their influence. Based on these outcomes, it is further suggested that while funding in particular has strong influence on Olympic performance, it is not sufficient to justify the vast amounts of money invested in targeted sports and disadvantaging others, remaining outside the selected few. Examples to support this statement can be given with the case of Athletics, where despite the increasing funding, performance has not changed significantly, and with Swimming, where the rising financial investments have not secured the projected Olympic success in the London 2012 Olympics. On the other hand, sports like Equestrian, Gymnastics and Boxing clearly show that it is not just funding that leads to success, but it is optimising its utilisation, while not neglecting other significant factors. Each of these three sports has either met or exceeded its medal targets in the London 2012 Games. Further examples can be given as a result of the

comparison between Olympic and Paralympic sports, their funding and performance. From the London 2012 Paralympics alone, British Paralympic athletes have won 120 medals in total, compared to 65 Olympic, despite of being allocated only a fifth of the combined funding available. Undertaking effective measures to support and develop Paralympic sports is crucial for both UK Sport and Sport England if the nation is to grow and sustain the successful performance of its Paralympic athletes. As Gold and Gold (2007) have stated, the Paralympic Games demonstrate an increasing importance in changing society's perceptions of disability sports and promoting the agendas of inclusion, diversification and equality among people - agendas also included in the London 2012 social values. In the end of the chapter, data from Sport England's Active People Survey has been reviewed in order for participation figures in Olympic sports to be compared. Overall, even though more funding could lead to better performance and increase the likelihood of winning Olympic medals, participation in sport does not seem to be influenced accordingly. In the majority of Olympic sports the numbers of participants nationally are decreasing, regardless of the financial conditions of the particular sport or its Olympic performance. Sport participation is crucial as it an essential part of talent development, and is linked with the development of the talent pool, its quality and quantity (Coackley, 2011; Girginov, 2008). Such conclusions suggest there is a greater need for strategic reforms of current sport policies and implemented practices in order for outcomes to be changed towards a more consistent and valuable direction.

CHAPTER 5 – Conclusion and Recommendations

The review of the literature carried throughout the study has highlighted some valuable findings related to elite sport development and funding, participation and performance in particular. The conducted literature review has highlighted valuable contributions to the existing body of knowledge on elite sport development. Authors like Green (2004; 2005; 2006) and Oakley and Green (2001) have explored the role and importance of effective sport policies in British elite sport development. Garrett (2004) and De Bosscher et.al (2006) have come to the conclusion that sporting success and successful performance are concepts influenced by a wide range of factors. Often, these factors vary and the strength and direction of their influence change according to the different circumstances. As De Bosscher (2008) notes, it is difficult, if not impossible, to summarise and review all factors influencing success and performance in sport. Sam (2012) and Vayens et.al (2009) have focused their work on the processes related to talent identification and target funding in sports. Vayens et.al (2009) touch upon the occurrence of selective re-investment, occurring as directing funds at a selection of athletes within a small number of previously targeted sports. In addition, Sam (2012) suggests that the matter of double targeting could limit chances for success by preventing sports and athletes with potential to determine their winning capabilities. This could especially be the case when it is unclear to what extent funding influences performance and/or vice versa. Charlton (201) and Girginov and Hills (2008; 2009) study the vital role of participation rates in sport and review the variety of benefits it has to society's lifestyle and health, and physical activity. They also highlight the importance participation has when it comes to grassroots and elite sport development. Certain concerns could be logically based on the Active People Survey data showing decreasing numbers in sport participation (Sport England, 2013). In comparison, Paralympic and disability sports seem to lack academic research. Gold and Gold (2007) study the growth of the Paralympic Games and their rising importance, and authors like Brittain (2012) and Nixon (2007) further contribute to vital role the Paralympics have on development and participation in disability and Paralympic sports. In his work, Shibli (2012) concludes that if a nation is to be successful at the highest sporting level, the elite and grassroots sports should not only be managed effectively, but there is a continuous need

to professionalize sport practices, to improve sport policies, and thrive for success in both the short- and long-term.

Based on the outcomes of this thesis, it has been established that while many researchers have studied each of the concepts of funding, performance and participation in sport (Girginov and Hills, 2008; Garrett, 2004; Green and Oakley, 2001), only a few have explored the link between funding and performance (De Bosscher, et.al, 2006; Sam, 2012), while the inter-dependence of all three of them has not yet been thoroughly investigated as an occurrence. The importance of this relationship to be studied has been evidenced and it has been in the purpose of this thesis to explore it. The focus has been predominantly on elite sport development – Olympic and Paralympic sports funding and performance, and to a smaller extent on grassroots sport, mainly in terms of studying participation rates in relation to the development of the elite talent pool of athletes. The aims and objectives of the thesis (refer back to page 12) have been met with the successful application of both qualitative and quantitative methods. An in-depth and critical review of UK Sport, Sport England and DCMS policies has highlighted the gap where the written policies fail to meet their practical application and implementation of strategies. As Girginov (2008) has further stated, potential obstacles and risk of failure could arise where the written policies do not meet the real life conditions. The review has also showed the prioritisation of Olympic sports and how the majority of the UK Sport funding has been continuously targeted in a small selection of sports – not necessarily the most successful or prospering ones. As performance has been measured by the number of Olympic medals won by sports, evidence to track their success have been presented in the historical database (Appendix 2), which includes funding and performance figures for all Olympic sports from the Millennium Olympiad in 2000 to London 2012 and Rio 2016. It also provides participation figures, based on the Sport England's Active People Survey. Alongside studying the impacts of funding related decisions on performance and participation, with the help of SPSS it has also been tested whether a relationship between the three concepts exists. Overall, analyses have led to the conclusion that more money in sport do not necessarily bring more medals out. As authors like De Bosscher, et.al (2008) and Girginov (2008) have stated it is difficult, if not impossible, to give a single and extensive definition of successful sport

performance due to the nature and characteristics of the concepts and the changing influence of many factors. While funding in particular has a considerably strong influence on the development of sport, it alone cannot determine success. It has been suggested that failure to acknowledge this relationship could result in a limited and short-term achievements or even in the misuse of not only money and resources, but the key ingredient of sporting success – full-time athletes (Houlihan and Green, 2005). Therefore, this thesis has argued with reasons for target funding in some British Olympic sports and has criticized the objectivity in the implementation of relevant policies. In addition to funding and performance not being related in the commonly assumed way, participation numbers also do not reflect changes in funding and performance accordingly. The data from the Active People Survey shows a continuously decreasing percentage of people taking part in sports, despite of the increasing investments from UK Sport and Sport England and the overall growing number of medals won by Team GB in recent Olympics.

UK Sport's No Compromise policy has the aim to provide funding to the sports considered more capable to win Olympic medals and meet their set targets, and restricting or withdrawing financial support to the sports, which fail to meet the given requirements. This strict criteria of focusing more funding in fewer sports and athletes, could potentially lead to pitfalls in the Olympic performance of Britain and failure to meet set targets. Results could drastically range from astonishing for some athletes and their respective sports to unfortunate for others. Such extreme outcomes have the potential to impact on National Governing Bodies themselves as well as on the nation's sporting image in both positive and negative aspects. What could be concluded is that with results on two opposite extremes and a lack of stable performance in the middle, it is more difficult to build and sustain a successful and long-lasting national sport system.

There are many reasons for the UK to emphasise on Elite sporting success in particular. For example, they could range from strengthening international recognition and boosting the positive sporting image of the nation, to political and economic benefits, and national sport development at both the elite and grassroots levels (Green and Houlihan, 2008). This thesis has envisioned to add to the existing body of knowledge on elite sport development

in Great Britain and fulfil the current gap of how funding related policies and strategies impact on Olympic performance and mass participation. It has also been anticipated that outcomes of this thesis could serve as the ground for future research in the sphere of effective sport funding utilisation, not neglecting its impacts on performance and participation. This could also lead to recommendations for improvement of elite sport development systems.

Limitations

Limitations of this study could arise with statistical analyses as some Olympic sports are not funded by UK Sport at the elite level, while they might receive some funding from Sport England towards grassroots development and increasing participation. For example, both tennis and football are deemed able to self-fund their Olympic athletes and have not received funding through UK Sport towards the London 2012 Olympic Games. On the other hand, in the Whole Sport Plan (2009 – 2013) it could be seen that both sports have been allocated lottery funding by Sport England. The differing characteristics of football and tennis from other British Olympic sports lead to difficulties in including the two sports in analyses, despite their popularity.

Some methodological limitations arise as the research topic covers a wide area of investigation and in some instances the research topic may extend beyond the boundaries of this piece of research. On the other hand, the wider research topic could lead to relevant further research to be carried.

In regards to the concept of funding, of interest has been the allocation of public funds provided by UK Sport to Olympic/Paralympic sports. While this does not provide a completely holistic picture of sport funding, it is still a significant investment into the elite sporting levels. One, which can impact on international recognition and sporting image, medals won, national participation numbers and sport development. The funding by UK Sport gives a series of consistent figures to compare similarities and differences and to track changes in performance and participation, as well as in funding itself.

As Houlihan (2012) has stated, it is essential to clearly define key concepts, in order for valid conclusions to be given. Previous research on each of the three concepts of interest in this thesis – funding, performance and participation, has shown the level of complexity in providing a single extensive definition of the terms. As De Bosscher et.al (2006) have argued, in the case of successful performance in sport, providing such definition might as well be considered impossible due to the number of factors influencing performance (referring to the nine pillars of successful performance by the same authors), and their changing strength of influence. Although, the influence and importance of additional factors has been acknowledged, in order for the purpose of this research to be achieved funding, performance and participation have been justified with quantifiable measures, enhancing their suitability for statistical tests. While in some opinions giving numerical values to measure sport performance may not be seen as sufficient, based on the carried research and review of the literature, it has been considered both suitable and reliable by the researcher for the results of the carried statistical analyses to be counted as satisfactory. In addition, the flexibility of the topic provides opportunities for limitations to be overcome by further research and in that way contribute to the knowledge derived here.

This work has also aimed to clearly justify that focus has been more on the British elite sport development rather than on the grassroots level. The study has reviewed relevant sport policies, but with focus on studying the consequences of policy decisions and the impacts caused. The further funding utilization, once distributed to the Sport National Governing Bodies, has not been followed. Considering research from alternative perspectives could also be seen as a way to overcome current limitations.

Further Research

The case study of this thesis has looked at the impacts of funding on performance and participation in British Olympic sports. A further research could investigate potential impacts from the performance or participation perspectives. Some research could focus on a single sport or a group of sports and draw international comparisons. Comparisons could also be built on systems, sports and countries. The host nation effect has not been explored as it has not been directly relevant in this case. A further investigation in the host nation

effect could reveal important outcomes. For example, to study changes in host countries' sport systems, related sport targets and expectations for the nations' performance. Another route forward could be seen in comparing data from APS7 with APS6 as both surveys will reflect on participation numbers at different stages of the same Olympiad – London'12. Also, participation rates from the APS7 could be compared with APS3, where the results from each survey will cover the same period of time after the relevant Olympics (those of London'12 and Beijing'08). For the purpose of this research comparative critical analyses have been predominantly built on APS2 and APS6, which have measured participation in the same period of the particular Olympic Games.

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Appendix 1 - Literature Review Matrix

Authors	Year	Title	Purpose	Relevance
Shibli, Gratton and Bingham	2012	A forecast of the performance of Great Britain and Northern Ireland in the London 2012 Olympic Games	Following a previously developed framework, the paper aims to forecast the performance and medal results (including number of Golds) of Britain in the London'12 Olympics.	Follows the changes in British sport policies towards increased investment in elite sports. Reviews performance and investment in previous Olympics.
Shibli	2012	The management of excellence in sport	This paper stresses on the importance of the successful management of elite sport in order to deliver success by winning more medals at international events).	The discussion has been centered on the continuous need to professionalize sport practices, improving sport policies, and thriving for success in the long-term.
Shibli and Bingham (2008)	2008	A forecast of the performance of China in the Beijing 2008 Olympic Games and the underlying management issues	The study aims to forecast China's medal performance in the 2008 Olympic Games, with the help of a constructed framework for analyses. Also analyzing the development of elite sport in China and forecasting the number and type of medals to be won.	There is evidence of strong central government support in Chinese sport, leading to the application of performance management principles with little necessity for value for money. China's aims suggest that the nation seeks to develop a medal winning capability at any price. Outcomes of this paper present ground for comparison with Britain as the host nation of the 2012 Olympic Games.
Bullough	2012	A new look at the latent demand for sport and its potential to deliver a positive legacy for London 2012	An investigation of participation targets in relation to the optimistic legacy plans of the London'12 Olympics	A review of the importance and drivers for change in sport participation and the related London'12 Legacy plans.
Green and Houlihan	2004	Advocacy Coalitions in Elite Sport Policy Change in Canada and the UK	Explores Elite policy change in Canada and the UK, through the Advocacy Coalition Framework. Also looking at its effectiveness.	The research is based on 2 highly funded Olympic sports in the UK – swimming and athletics, and provides an international comparison of national sport systems.
Green	2004	Changing policy priorities for sport in England: the emergence of elite sport development as a key policy concern,	Follows the emergence of sport as a public sector of interest, and the changes and developments occurring in it.	Provides a thorough review of the UK (elite) sport policies since the formalization of the sport system in the 1960s to the very beginning of the 21st century.

Green	2005	Integrating Macro- and Meso-Level Approaches: A Comparative Analysis of Elite Sport Development in Australia, Canada and the United Kingdom	Macro- and Meso-analysis and comparison of sport systems in several countries, differences and similarities of elite sport policies.	Another in-depth comparative analysis of sport systems and their policies, noting occurring changes and influences in them.
Green and Oakley	2001	Elite sport development systems and playing to win: uniformity and diversity in international approaches	Looking at the former Soviet Union and GDR approach in developing sporting excellence, as well as evidencing uniformity or diversity in different Western countries with this approach.	Outcomes suggest for a pattern of uniformity is present among some Western countries in their sport systems, however, there is sufficient room for diversification. Analyses include the UK sport system.
Green	2006	From 'Sport for All' to Not About 'Sport' at All? - Interrogating Sport Policy Interventions in the United Kingdom	Follows the continuous modifications to the UK sport system and its changing emphasis from mass sport to elite sport development.	Provides a critical account of the ways in which the funding for, and political justifications underlying, sport policy in the United Kingdom have shifted from concerns to provide 'Sport for All' opportunities for the generality of the population, and at various times for targeted groups in particular, to a somehow two-sided emphasis: recognizing the importance of sport participation to the population of the UK, as well as the significance and benefits of elite sport development.
Charlton	2010	'Grow and Sustain': The role of community sports provision in promoting a participation legacy for the 2012 Olympic Games	Introduction of the Sport England strategy to develop a 'world leading community sports system', and reverse the decline in active sports participation.	Analyzing the challenges and potential risks to achieving this optimistic target and looking at the contradicting results related to the decline in sport participation.
Grix and Phillpots	2011	Revisiting the 'Governance Narrative' : 'Asymmetrical Network Governance' and the Deviant Case of the Sports Policy Sector	Looking at the emergence of a "hierarchical governance network" in sport governance in the UK.	The high degree of government influence and control in policy designs and implementation further shapes the patterns of resource dependency operating in the sports policy sector at both elite and mass participation levels.

De Bosscher, De Knop, Van Bottenburg and Shibli	2006	A Conceptual Framework for Analysing Sports Policy Factors Leading to International Sporting Success	Even though it is difficult, if not impossible, the paper aims to provide an overview of important determinants that can lead to international sporting success.	The authors suggest that an increasing number of nations (including the UK) heavily invest in sport to compete (and win) at the highest level. However, there is no clear evidence that demonstrates how sports policies can influence international sporting success.
Garrett	2004	The response of voluntary sports clubs to Sport England's Lottery funding: cases of compliance, change and resistance	A research on determinants of National Lottery funding for sport clubs. And the crucial role clubs play in UK sport development.	Relevant as it demonstrates how there are common practices established when it comes to sport clubs to receive funding and the factors that influence the distribution of financial resources. However, it is not focused on UK Sport Olympic funding.
Girginov and Hills	2008	A Sustainable Sports Legacy: Creating a Link between the London Olympics and Sports Participation	Analyses of the ambitious project of the UK to significantly increase sport participation numbers as a results of the London'12 Legacy.	Introduces different influences and constraints of sport participation. Where failure to recognize and consider them could result in declining participation numbers.
Girginov and Hills	2009	The political process of constructing a sustainable London Olympics sports development legacy	The study seeks to construct an academic understanding of the importance of creating a sustainable Olympic sports development legacy. It applies a social perspective to examine the link between effective sport development and the London 2012 Games.	The growing importance of sustainable Olympic sport legacies could be linked to the valuable benefits of sport development and increasing national participation numbers. By better understanding this growing need for effective legacies, the quality of the required sport policies could be improved as well.
Oakley and Green	2001	Still playing the game at arm's length? The selective re-investment in British sport, 1995–2000	Provides a critical review and evaluation of changes in British sport policies and governance structures on the build-up to the Millennium.	Particularly relevant to the development of elite sport in the UK, the establishment and distribution of National Lottery funding and the selective re-investment in targeted Olympic sports and athletes.
Vaeyens, Gullich, Warr and Philippaerts	2009	Talent identification and promotion programs of Olympic athletes	Discusses issues related to the identification and preparation of potential Olympic athletes.	Analyses of the talent identification and development stages in elite sport development and evidencing a matter of further selective targeting within the talent pool.
Sam	2012	Targeted investments in	This paper explores the principles of	Based on the outcomes of this paper it could be suggested

		elite sport funding: wiser, more innovative and strategic	performance-based targeting in sport and traces its historical development.	that while targeted re-investment is becoming a widely adopted principle in sport governance, not only funding is based on performance, but performance depends on funding.
Halsey	2009	The true success of nations at recent Olympic Games: comparing actual versus expected medal success	An alternative comparison of nations' Olympic success, not only according to number of medals won, but considering other influential factors.	Evaluating the influence of variety of external factors to Olympic success and performance. Analyses are based on countries' (including the UK) resources, population, GDP, etc.
Collins	2010	From 'sport for good' to 'sport for sport's sake' – not a good move for sports development in England	Analyses of policy changes related to mass participation in the UK.	The analyses suggest for the prioritization of public funding for elite sport and underestimating the importance of investing in the development of the grassroots level.
Grix and Carmichael	2012	Why do governments invest in elite sport - A polemic	The aim is to introduce and unpack the reasons generally given by states for prioritizing and investing in elite UK sports.	Outcomes it could be concluded that there is a contradiction between 'words and actions' in regards to justifying reasons for increased (targeted) investment in elite sports in the UK.
Baker, Horton, Robertson-Wilson, Wall	2003	Nurturing sport expertise: factors influencing The development of elite athletes	The authors argue that the successful development of elite athletes is a result of the interaction of biological, psychological and sociological elements. They further research training and environmental factors influencing the quality and quantity of the elite athletes' development process.	Several relevant outcomes could be seen in this paper. Based on a historical academic review the authors suggest that there are many factors influencing the training and development of elite athletes, ranging from case to case, and rarely matching. Therefore, definitions of sporting excellence vary depending on the characteristics of the particular case.
Duffy, Lyons, Moran, Warrington, MacManus	2006	How we Got Here: Perceived Influences on the Development and Success of International Athletes	This research looks at the factors, which have influenced the development and success of close to 200 international athletes. Following Carlson's framework, personal attributes of the athletes were seen as central to maximizing their talent	The authors conclude that in order to succeed athletes depend on personal motivation and the support of a strong microsystem from the grassroots levels and then progressing to the elite level, so that the sporting, financial and personal encounters linked with their success can be positively met.

			and potential.	
Martindale, Collins, Abraham	2007	Effective Talent Development: The Elite Coach Perspective in UK Sport	The aim of this study is to examine and provide a thorough review of the effective goals and systems in talent development environments in the case of several British sports.	The input of this paper is important to the body of knowledge in sport development and exploring relevant factors. The paper contributes to understanding how effective systems can enhance the quality and sustainability of elite British athletes, leading to higher financial rewards and international recognition.
Brittain	2012	Perceptions of Disability and their Impact upon Involvement in Sport for People with Disabilities at all levels	This research is an in-depth investigation in the factors affecting para-athletes to participate and progress in their chosen sports, also considering the social perspective.	Non-medical academic research on disabled athletes and constraints for participation in disabled sports is a fairly recent approach. Therefore, early findings such as this study present the basis for further research and investigation.
Nixon	2007	Constructing Diverse sport opportunities for people with disabilities	Nixon's work is focused on two main aspects – changing the perception of society towards disabled athletes and recommending a sport model of inclusion and equality for para-athletes in the modern society.	The work of Nixon also presents a different perspective for analysis, based on creating better opportunities for people with disabilities to participate in sport and physical activities.
Gold and Gold	2007	Access for All: The rise of the Paralympic Games	This paper presents a historical review of the development of the Paralympic Games, stressing on the London 2012 Games and the importance of creating sustainable Paralympic legacy.	A unique characteristic of this study is the historical development of the Paralympic Games. Particular importance is paid on the Olympiads since the Millennium and the London 2012 Games.
Weed, Coren, Fiore, Wellard, Mansfield, Chatziefstathiou and Dowse	2012	Developing a physical activity legacy from the London 2012 Olympic and Paralympic Games	In this paper, the authors critically argue that to present day there are no evidence to justify a positive and negative sport development and changes in participation as part of Olympic and Paralympic legacies.	This article is a critical review of existing academic evidence for increasing or decreasing participation as a result of Olympic legacies.

Appendix 2 – Olympic Database

Olympic Cycle**	Sydney 1997-2000*					Athens 2001-2004*					Beijing 2005-2008					London 2009-2012						Rio 2013-2016
Olympic Sports	Funding	Medals	G	S	B	Funding	Medals	G	S	B	Funding	Medals	G	S	B	Funding	Medals	Avg. Cost	G	S	B	Funding
Archery	0	0				800,000	1			1	2,834,000	0	0	0	0	4,408,000	0	n/a				3,135,977
Athletics	10,600,000	6	2	2	2	11,400,000	4	3		1	26,513,000	4	1	2	1	25,148,000	6	4,191,333	4	1	1	26,824,206
Badminton	0	1			1	0	1		1		8,759,000	0				7,434,900	0	n/a				5,913,030
Basketball	0	0				0	0				3,694,000	0				8,599,000	0	n/a				7,039,840
Boxing	0	1	1			0	1		1		5,005,000	3	1	0	2	9,551,400	5	1910280	3	1	1	13,764,437
Canoe Kayak^	4,500,000	2		1	1	4,700,000	3		1	2	13,622,000	3	1	1	1	16,176,700	4	4044175	2	1	1	19,107,789
Cycling^	5,400,000	4	1	1	2	8,600,000	4	2	1	1	22,151,000	14	8	4	2	26,032,000	12	2169333.3	8	2	2	30,565,816
Diving	900,000	0				1,400,000	1		1		5,873,000	0				6,535,700	1	6535700			1	7,467,860
Equestrian^	3,000,000	1		1		4,400,000	3	1	1	1	11,727,000	2	0	0	2	13,395,100	5	2679020	3	1	1	17,929,600
Fencing	0	0				0	0				3,074,000	0				2,529,335	0	n/a				3,082,800
Gymnastics^	5,900,000	0				4,100,000	0				9,036,000	1	0	0	1	10,770,600	4	2692650		1	3	14,465,428
Handball	0	0				0	0				2,986,000	0				2,924,721	0	n/a				0
Hockey	0	0				0	0				9,882,000	0				15,013,200	1	15013200			1	15,511,600
Judo	3,900,000	1		1		4,100,000	0				6,947,000	0				7,498,000	2	3749000		1	1	6,800,200
Modern Pentathlon	1,100,000	2	1		1	2,000,000	1			1	5,920,000	1	0	1	0	6,288,800	1	6288800		1		6,940,098
Rowing	9,600,000	3	2	1		10,600,000	4	1	2	1	26,042,000	6	2	2	2	27,287,600	9	3031955.6	4	2	3	32,622,862
Sailing	5,100,000	5	3	2		7,600,000	5	2	1	2	22,292,000	6	4	1	1	22,942,700	5	4588540	1	4		24,515,072
Shooting	0	2	1	1		1,400,000	0				5,056,000	0				2,461,866	1	2461866	1			2,992,493
Swimming	6,900,000	0				6,400,000	2			2	20,659,000	6	2	2	2	25,144,600	3	8381533.3		1	2	21,352,191
Synch. Swimming	0	0				0	0				1,648,000	0				3,398,300	0	n/a				4,345,127
Table Tennis	0	0				0	0				2,533,000	0				1,213,848	0	n/a				0
Taekwondo	600,000	0				600,000	0				2,667,000	1	0	0	1	4,833,600	2	2416800	1		1	6,861,812
Triathalon	1,400,000	0				2,600,000	0				5,113,000	0				5,291,300	2	2,645,650	1		1	5,508,643
Volleyball^	0	0				0	0				4,112,000	0				3,536,077	0	n/a				514,000
Water Polo	0	0				0	0				3,147,000	0				2,928,039	0	n/a				4,541,789
Wrestling	0	0				0	0				2,125,000	0				1,435,210	0	n/a				0
Weightlifting	0	0				300,000	0				1,686,000	0				1,365,157	0	n/a				1,798,319
Football	Self-funded	0				Self-funded	0				Self-funded	0				Self-funded	0					Self-funded
Tennis	Self-funded	0				Self-funded	0				Self-funded	0				Self-funded	2		1	1		Self-funded
Total Olympics**	58,900,000	28	11	10	7	70,000,000	30	9	9	12	235,103,000	47	19	13	15	264,143,753	63	4192758	29	17	19	283,600,989
Total Paralympics**		131	41	43	47		94	35	30	29		102	42	29	31	49,254,386	120	410,453	34	43	43	71,335,617
Combined Funding																313,398,139						354,936,606

* - Podium funding only, from 2006 UK Sport funding expanded to Talent, Development, Podium.

** - Data from the IOC, UK Sport and London2012

n/a - Not Applicable

^ - Canoeing is Sprint and Slalom; Cycling is Road, Track, BMX, and Mountain Bike; Equestrian is Dressage, Eventing and Jumping; Gymnastics is Artistic, Rhythmic and Trampoline; Volleyball is Indoor and Beach

4 192 758 - Estimated average cost per medal

Appendix 2 – Active People Survey Data

1 x 30 sport indicator			Beijing Olympic Year								London Olympic Year		
	APS1 (Oct 2005-Oct 2006)		APS2 (Oct 2007-Oct 2008)		APS3 (Oct 2008-Oct 2009)		APS4 (Oct 2009-Oct 2010)		APS5 (Oct 2010 - Oct 2011)		APS6 (Oct 2011 - Oct 2012)		
Sport England NGB 09-13 Funded sports	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**APS2 statistically significant change**
Swimming	**8.04 %**	**3,273,800**	**7.83 %**	**3,244,300**	**7.57 %**	**3,162,400**	**7.50 %**	**3,156,300**	**6.62%**	**2,809,300**	**6.81 %**	**2,933,100**	**Decrease**
Football	4.97 %	2,021,700	5.18 %	2,144,700	5.08 %	2,122,700	4.96 %	2,090,000	4.98%	2,117,000	4.94 %	2,126,800	Decrease
Athletics	**3.33 %**	**1,353,800**	**3.89 %**	**1,612,100**	**4.16 %**	**1,739,700**	**4.45 %**	**1,875,500**	**4.47%**	**1,899,400**	**4.72 %**	**2,033,700**	**Increase**
Cycling	**4.02 %**	**1,634,800**	**4.26 %**	**1,767,100**	**4.50 %**	**1,880,000**	**4.43 %**	**1,866,300**	**4.15%**	**1,761,200**	**4.55 %**	**1,962,000**	**Increase**
Golf	2.18 %	889,100	2.29 %	948,300	2.15 %	897,600	2.04 %	860,900	1.96%	833,200	1.97 %	850,500	Decrease
Badminton	1.27 %	516,700	1.29 %	535,700	1.29 %	539,400	1.24 %	520,900	1.20%	510,300	1.26 %	544,200	No change
Tennis	1.12 %	457,200	1.18 %	487,500	1.27 %	530,900	1.04 %	437,500	0.88%	375,800	1.03 %	445,100	Decrease
Equestrian	***0.77 %***	***314,600***	***0.82 %***	***341,700***	***0.82 %***	***341,500***	***0.80 %***	***337,800***	***0.74%***	***312,600***	***0.77 %***	***331,000***	***No change***
Rugby Union	0.46 %	185,600	0.56 %	230,300	0.50 %	207,500	0.46 %	194,200	0.42%	178,900	0.42 %	183,000	Decrease
Basketball	0.39 %	158,300	0.45 %	186,000	0.46 %	193,100	0.36 %	151,800	0.36%	151,500	0.35 %	152,900	Decrease
Boxing	***0.28 %***	***115,500***	***0.26 %***	***106,800***	***0.29 %***	***121,400***	***0.28 %***	***117,200***	***0.35%***	***149,700***	***0.33 %***	***140,400***	***Increase***
Hockey	0.23 %	93,900	0.24 %	99,800	0.23 %	95,700	0.21 %	86,800	0.19%	79,200	0.25 %	109,200	No change

Table Tennis	0.17 %	69,400	0.18 %	75,600	0.20 %	85,600	0.20 %	86,200	0.32%	134,900	0.23 %	98,800	Increase
Weightlifting	0.26 %	107,800	0.29 %	118,400	0.28 %	116,000	0.18 %	77,600	0.17%	73,400	0.20 %	86,100	Decrease
Sailing	**0.16 %**	**64,000**	**0.22 %**	**89,900**	**0.20 %**	**83,000**	**0.15 %**	**65,100**	**0.12%**	**52,300**	**0.15 %**	**64,400**	**Decrease**
Rugby League	0.18 %	73,700	0.20 %	82,000	0.15 %	63,000	0.12 %	52,300	0.12%	51,000	0.12 %	51,100	Decrease
Gymnastics	***0.14 %***	***58,900***	***0.15 %***	***61,200***	***0.12 %***	***48,300***	***0.12 %***	***50,300***	***0.11%***	***48,000***	***0.12 %***	***49,800***	***Decrease***
Canoeing	***0.09 %***	***36,500***	***0.10 %***	***43,500***	***0.15 %***	***62,900***	***0.12 %***	***51,100***	***0.11%***	***46,900***	***0.11 %***	***46,600***	***No change***
Rowing	**0.10 %**	**39,300**	**0.13 %**	**54,900**	**0.12 %**	**49,000**	**0.11 %**	**45,300**	**0.09%**	**40,300**	**0.10 %**	**42,100**	**Decrease**
Volleyball	0.08 %	32,700	0.12 %	48,400	0.09 %	39,200	0.09 %	37,500	0.07%	31,500	0.06 %	27,500	Decrease
Judo	0.04 %	17,200	0.05 %	18,700	0.04 %	15,100	0.06 %	24,500	0.03%	11,800	0.06 %	25,200	No change
Taekwondo	0.05 %	19,000	0.06 %	23,500	0.06 %	27,000	0.06 %	25,900	0.06%	27,100	0.05 %	22,000	No change
Fencing	0.03 %	13,600	0.04 %	15,000	0.03 %	12,200	0.02 %	8,000	0.03%	13,700	0.03 %	13,700	No change
Archery	*	*	*	*	0.03 %	12,300	0.04 %	16,300	0.03%	13,000	0.03 %	12,300	*
Handball	*	*	*	*	*	*	*	*	*	*	*	*	*
Modern Pentathlon	*	*	*	*	*	*	*	*	*	*	*	*	*
Shooting	*	*	*	*	*	*	*	*	*	*	*	*	*
Triathlon	*	*	*	*	*	*	*	*	*	*	*	*	*
Wrestling	*	*	*	*	*	*	*	*	*	*	*	*	*
*Insufficient data													

Appendix 2 – Paralympic Sports – Funding and Medals

London 2009 - 2012						Rio 2013 - 2016	
Paralympic Sports	**Funding**	**Medals**	**G**	**S**	**B**	**Funding**	**Medals**
Archery	2,147,700	2	1	1	0	2,028,806	
Athletics	6,730,000	29	11	7	11	10,705,158	
Boccia	2,333,300	2	0	1	1	3,015,740	
Canoeing	n/a					2,298,822	
Cycling (Road & Track)	4,198,000	22	8	9	5	6,738,000	
Equestrian	3,605,500	11	5	5	1	3,782,800	
Football 5/7-a-side	0	0	0	0	0	1,304,326	
Goallball	513,453	0	0	0	0	1,008,740	
Judo	1,294,400	2	0	1	1	2,019,874	
Powerlifting	1,092,700	1	0	0	1	841,114	
Rowing	2,332,300	1	1	0	0	3,470,385	
Sailing	1,748,900	2	1	0	1	2,802,310	
Shooting	2,085,000	3	0	1	2	3,333,806	
Sitting Volleyball	786,961	0	0	0	0	0	
Swimming	10,468,750	39	7	16	16	11,756,218	
Table Tennis	1,699,400	4	0	1	3	2,731,670	
Triathlon	n/a					2,158,599	
Wheelchair Basketball	4,493,930	0	0	0	0	5,379,264	
Wheelchair Fencing	552,892	0	0	0	0	1,008,608	
Wheelchair Rugby	2,361,600	0	0	0	0	3,026,107	
Wheelchair Tennis	809,600	2	0	1	1	1,925,270	

Total Funding	**49,254,386**				**71,335,617**
Total Medals	**All 120**	G34	S43	B43	
Average medal cost	**410,453**				

G – Gold
S – Silver
B - Bronze

Appendix 3 – UK Sport - Ranking and Prioritisation