# ‘PICKING WINNERS’ IN A LIBERAL MARKET ECONOMY: MODERN DAY HERESY – OR ESSENTIAL STRATEGY FOR COMPETITIVE SUCCESS?

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*'All historical experiences of sustained economic growth – starting at least from the English Industrial Revolution – find their enabling conditions in a rich set of complementary institutions, shared behavioural norms and public policies.'* [1]

*'Competitive national industries have long been seen as the wealth-generating lifeblood of nations.'*[2]


## Abstract

This paper explores the current debate about industrial strategy and the UK's hesitant acceptance of a possible role for the state in addressing the challenges confronting British industry in the wake of the 2007/8 financial crisis. In this context – and following the 2012 London Summer Games – political leaders have been pointing to the strategy that succeeded in reversing the British Olymic team's fortunes following its nadir at the 1996 Atlanta Summer Games; and they are suggesting that there may be lessons for industry. However, the political rhetoric has yet to be translated into action. Analysis of the elite sport strategy, in the light of the evolving literature on industrial strategy and policy suggests that although there are details that are specific to sport, there are also aspects of the general strategic approach that can be used to inform the design and implementation of a strategy aimed at developing and improving the international competitive performance of UK industrial sectors and manufacturers. The significance of the UK elite sport strategy is that it was evolved and successfully implemented in the British social, political and economic context, building on and improving existing institutional capabilities.



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## 1.**Introduction**

In 2007/8, with the collapse of the American subprime real estate bubble – merely the most recent in a series of asset bubbles – the extended period of prosperity that had started in the early 1990s came to an abrupt end. The resulting pandemonium plunged the world into a financial crisis of unprecedented proportion that quickly spilled over into the real economy. In response, governments engaged in massive internationally coordinated stimulus programmes; and they rescued financial institutions that were deemed 'too big to fail'. However, less than 18 months after the emergency measures, the markets' unease about the resulting fiscal deficits and high levels of sovereign debt caused a sharp reversal in policy, as austerity measures replaced stimulus.

As the global recession has deepened – made worse by generalized austerity – and with confidence in the financial sector severely shaken, policy-makers are looking for new sources of economic growth and employment creation; and 'there has been a "renaissance" of interest in industrial policy' (Warwick 2013:47). Even in the UK, where manufacturing has been largely neglected since the end of the 1970s – and had seen nothing in the way of a forward-looking strategy for many years prior to that – things are starting to change. In a speech to the chairmen of Local Enterprise Partnerships in 2011, Prime Minister David Cameron acknowledged that radical change in the composition of the UK's economy was necessary: 'What we need to do in this country is a massive rebalancing of our economy. We have been too reliant on government spending, on housing and finance ... We have got to be more reliant on manufacturing and investment.'[3] Whilst in part this sounds like a justification for a policy of austerity, rebalancing the economy towards manufacturing will require the evolution of some kind of industrial strategy. The question, particularly given the poor track record of the UK in this respect, is: what kind?

In the on-going crisis, countries like Germany and Northern Italy, which have historically taken an active approach to industrial policy – and have proven much more resilient than others that have not – are attracting attention. But whilst there are certainly general lessons that can be learned from abroad, merely attempting to transplant policy from an economy with a completely different culture and institutional structure – not to mention starting point – is unlikely to be any more effective than it has been in the past.[4] The more promising strategies for building global competitiveness are those that have already delivered success within a British context, since they share common historical, cultural and institutional roots. One such example became clearly apparent during the London 2012 Summer Olympic Games, when Team GB won 65 medals and earned for itself a world ranking of 3rd – up from its dismal performance in the 1996 Atlanta Summer Games, at which it placed 36th.

Whilst there are different views on industrial strategy and policy, interestingly, much of the more recent literature, particularly in the wake of the 2007/8 financial crisis, suggests a similarity of approach with that underpinning the competitiveness of UK elite sports. We are therefore interested in exploring the extent to which economic necessity, recent thinking about industrial policy and the UK's successful elite sports strategy might have similarities in terms of the direction of travel. Exploring the strategies, systems and institutional reforms underpinning the British Olympic team's impressive competitive turn-around, we assess the degree to which they might inform strategy to build competitiveness in select sectors of UK industry. Of particular interest is the team's approach to selecting the sports (and athletes) with the greatest potential for success and supporting their development into world class international competitors. Predictable financing, supported by National Lottery Funding from 1994 onward, has been important; but equally so has been strategic leadership and vision, a culture of winning and an institutional structure to coordinate the efforts required for on-going competitive improvement. All of these are also likely to be components of a strategy for international competitiveness in business.

The paper is laid out as follows: Section two explores the current debate about industrial policy and locates it in historical context, tracing the UK's evolving approach to industrial policy and its – so far at least – hesitant acceptance of a role for the state in addressing the challenges resulting from the 2007/8 financial crisis. Section three examines the case of UK elite sport, focusing on its strategy for developing international competitiveness and Team GB's resulting steady and sustained competitive improvement since the 1996 Atlanta Summer Games. Section four identifies aspects of this approach that might have application in select sectors of UK industry. Section five concludes and identifies some of the implications for policy as well as areas for further research.

## 2.The evolving debate about industrial policy

According to Pack and Saggi (2006):

> '[f]ew phrases elicit such strong reactions from economists and policy-makers as *industrial policies* ... those who believe strongly in the efficient working of markets view any argument in favour of industrial policy as fiction, or, worse, an invitation to rent-seeking, whereas those who believe that market failures are pervasive think that economic development requires a liberal dose of industrial policy.'[5]

Yet, as Bora et al (1999) point out, '... the term "industrial policy" is not a well-defined one. It is ill-defined in relation to its objectives, the industries that are covered and the instruments that are used.'[6]

Nevertheless, since the 2007/8 financial crisis, in response to the prospect of prolonged stagnation and longer-term concerns about the secular decline of manufacturing and the structural imbalances – trade, regional and sectoral – that have been revealed and exacerbated by the crisis, industrial policy has entered the policy agenda. This has produced a flurry of research on what it might involve and how it might help to address the structural challenges confronting not only the world's developing countries but also its advanced industrialized economies. In this context, the debate has shifted from questioning 'why' and 'whether' to use industrial policy to 'what' it comprises and 'when' and 'how' it might be most effectively deployed.[7]

Within this literature, the definition of industrial policy ranges from 'a set of policies aimed at improving the global competitiveness of domestic firms, industries and sectors'[8] to a broader one involving

> 'any type of intervention or government policy that attempts to improve the business environment or to alter the structure of economic activity toward sectors, technologies or tasks that are expected to offer better prospects for economic growth or societal welfare than would occur in the absence of such intervention'.[9]

As such, it involves three main areas of intervention: 'vertical' or selective policies, in which the government promotes certain sectors or firms;[10] 'horizontal' or functional policies, in which the government supports activities that strengthen the competitiveness of broad segments of the economy's supply side;[11] and public-private strategic collaborations, involving 'dialogue' between the state and private sector to generate information for identifying opportunities for – and removing obstacles to – economic progress[12] and to create and support the institutions, policies and activities underpinning 'dynamic' economic progress.[13]

## 2.1. Evolution in the theory and practice of industrial policy

Although the term 'industrial policy' is a relatively recent one, its history can be traced to the Industrial Revolution, which according to Robinson (2009:4) was the result of the 'mother of all industrial policies' ... 'a vector of policies which probably constitutes one of the world's most successful and most consequential industrial policies.' Thus, contrary to the view that emerges from the writings of the 18th century British economists – of Britain as a free trade, free market economy – it was in fact the first to employ industrial policies as a means of successfully industrializing. Following Britain's lead, between the end of the Napoleonic Wars in 1815 and the beginning of the First World War in1914, the rest of the developed countries also industrialized, aided in no small part by industrial policies of their own.[14] In short, all of the major developed countries used high levels of government intervention (industrial policy) during the process of industrialization – although it may not have been identified as such. What differentiates them are 'the instruments, institutional arrangements and philosophy of intervention'.[15]

The modern debate about industrial policy originates in the 1970s and the rise of Japan, which was also the first country to use the term 'industrial policy' (sangyo seisaku) to describe selective industrial interventions.[16] However, there had been an evolution in the rationale behind industrial intervention during the post war period that started much earlier.[17] From the 1940s through the late 1960s, with the rebuilding of war-torn Europe – and with it, acceptance of a role for the state in managing the economy – Western governments prioritized *re*-industrialization. They sought to stimulate selected sectors of the economy through production subsidies, tax incentives and other state aids as well as to 'pick winners' through nationalization and the promotion of national champions. Because of perceived benefits, in terms of both knowledge spill-overs and dynamic economies of scale associated with linkages between industry and the economy – and the central role of manufacturing in this context – industry was given precedence and growth was encouraged through mergers and acquisitions.

Underpinning this was empirical research on the sources of economic growth that identified technological progress as the driving force.[18] But in spite of this, instead of developing new industries and technological capabilities, in response to pressure from politically well-connected special interest groups, UK industrial policy tended to take the form of shoring-up ailing industries and helping old ones to survive.[19] It was consequently largely unsuccessful as a strategy for long-term industrial rejuvenation; and by the late 1960s, services – especially financial services – were rapidly displacing manufacturing as a driver of growth.

In response to the 'stagflationary'[20] crisis of the 1970s, there was a retreat from active industrial policy to something closer to a market-driven, *laissez-faire* approach. Markets were deregulated and industries privatized. Confidence in the market mechanism to select sectors and firms and to allocate resources efficiently meant that the state was restricted to correcting market failures and supplying necessary public goods as well as to ensuring market freedom and a 'business friendly' environment through product, labour and capital market regulation and macroeconomic and financial market stability. Industrial policy thus took the form of limited, sector specific (often piecemeal) intervention, motivated by the need to correct market failures; and the policy debate revolved around consideration of the relative costs of 'government failure' as compared with market failure.

This was also a period of growing confidence in financial markets – the stock market, in particular – as a driver of economic growth and a vehicle by which industry could be effectively restructured. The underlying rationale was based on the 'efficient markets hypothesis', that the stock market is an efficient market and that a firm's share price is therefore an accurate reflection of the value of the underlying productive enterprise. Using this logic, the stock market was theorized to be an efficient 'market for corporate control' and the 'discipline mechanism' by which under-performing management teams could be replaced with more effective ones by means of the hostile take-over.[21] However, the widespread use of leverage to finance hostile takeovers meant that the targets tended to be cash and asset rich companies, the selling-off of which could be used to repay the debt.[22] Through this process, corporate raiders and stock market investors made enormous profits, fuelling a stock market boom that lent strength to the underlying theory, since the boom was interpreted as evidence of improved industrial performance. The reality, however, was that the consequence of asset stripping to repay the debt taken-on to finance hostile takeovers was the systematic dismantling vast segments of British industry. The resulting industrial unrest was met with fierce government opposition, which only exacerbated the problem. In the end, UK manufacturing capability was severely weakened. But rather than evolve a strategy for addressing the plight of industry, the general view was that the economy had progressed to a 'post industrial' service based stage of capitalism.[23]

The neoclassical 'market failure' debate was ultimately broadened to recognise a role for the state in promoting 'competitiveness'. During the 1990s, concerns about competitiveness resulted in a shift towards horizontal policies supporting a wider range of (primarily small) firms, industries and sectors.[24] Mirroring similar initiatives by the Organization for Economic Co-operation and Development (OECD)[25] and the European Union (EU)[26] successive UK governments produced Competitiveness White Papers[27] setting out their vision for industrial policy and describing it as 'active' – aimed not only at correcting market failures but also at strengthening the competitiveness of regions and firms by encouraging the development of technological and productive capabilities. According to Sharp (2001:2), the underlying rationale represented 'a dynamic extension of the neo-classical approach ... In particular, these theories which emphasise the externalities associated with R&D and the degree to which growth emerging from technological advances is "endogenised".' It was felt that '[f]irms benefit not only from static economies of scale and scope but also, over time, from the cumulative learning embodied in building-up and maintaining a production process'.[28] Thus, intervention took the form of horizontal policies, such as state support for investments in R&D, technology, education and training as well as selective policies aimed at high tech, advanced manufacturing and knowledge-intensive businesses.[29]

### 2.2. Evolving ideas about economic development policy

In the theory and practice of industrial policy aimed at economic development, prior to the 1970s there was general consensus that it was largely about the transformation of a country's productive structure by means of industrialization. The focus then shifted – away from production and towards addressing the symptoms of under-development, such as ameliorating poverty and providing for basic needs.[30] But during the 1990s, in response to the East Asian 'miracle' of the 1980s, the debate returned to the question of 'picking winners'. What emerged was the neo-liberal 'Washington Consensus' that attempted to make the case that selectivity did more harm than good. Because governments were assumed to be incapable of effectively identifying 'winners' and targeting intervention – and 'government failures' were considered to be much more costly than market failures – there was no role for industrial policy.[31] From this perspective, markets are prioritized and there is only a minimal role for the state, in providing essential public goods (such as education and infrastructure), macroeconomic stability and clear rules of the game.[32] The neo-classical perspective thus sees economic development as being largely driven by accumulation – of investments in physical and human capital – with the assumption that the capabilities required to make productive use of these is relatively easy, if not automatic[33]. The aim of industrial policy is therefore to provide an enabling environment for private sector investors.

Taking a pragmatic approach, some neo-classical economists, like Dani Rodrik, recognizing that '[m]arkets are not self-creating, self-regulating, self-stabilizing or self-legitimizing',[34] accept a role for government not only in correcting market failures but also in fostering the development of supporting non-market institutions. From this perspective, to function well, markets are seen to rely upon (1) market-creating institutions, such as property rights and legally binding contracts, to spur entrepreneurial activity and provide incentives for private economic actors to invest and to innovate; (2) market-regulating institutions to oversee product markets, labour markets and financial markets and to deal with externalities, economies of scale and information deficits; (3) market-stabilizing institutions, including fiscal and monetary policy institutions and a Central Bank, to mitigate the risk and uncertainty associated with macroeconomic and financial market instability and in so doing to provide an enabling environment for private investment; and (4) market-legitimating institutions, including social insurance institutions and conflict management institutions, to provide social stability and cohesion. However, 'there is no single mapping between the market and the set of non-market institutions required to sustain it'.[35] Because of differences in historical legacy, political economy and institutional capabilities, institutional arrangements are highly context specific. They therefore need to be built from the bottom-up, incorporating local knowledge and experience; institutions imposed from the top-down usually fail.[36]

'Structuralists', like Sanjaya Lall, take the view that whilst markets are powerful forces, they are not perfect. They therefore require supporting non-market institutions and government interventions not only to deal with market failures but also to improve on market outcomes. From this perspective, industrial policy in support of the development of non-market institutions is justified on the basis of high expected social returns.[37] The market-generating and market-stimulating role of the state thus goes further, to enable and support industrial competitiveness through the generation of technological capabilities and the capacity to innovate and to learn. In contrast to the neo-classical view, acknowledgement of past policy failures does not imply that the costs of government failure are always higher than those of market failure; rather, past policy mistakes can be a source of learning, to improve the capabilities of government.[38] Taking an evolutionary perspective, structuralists see economic performance in terms of the rate and nature of progress, which itself is a learning process. The economy is thus always in a process of change, where economic growth is 'the result of the co-evolution of technologies, firm and industry structures, supporting and governing institutions'.[39] In this context, industrial policy is about 'creating winners' within a market environment, where the state provides leadership and support for continuous competitive improvement. However, its effectiveness depends upon political accountability, social cohesion and the benefits of economic progress being widely shared.[40]

The East Asian experience also sparked interest in the role that the state might play in facilitating coordination, building institutions, developing networks, fostering systems and aligning strategic priorities.[41] This 'systems based' thinking is well summarized by Chang (1998:54):

> 'One interesting thing that has emerged from the debate on industrial policy of the last two decades or so is the recognition that industrial policy is more about broad 'vision' and co-ordination than about doling out subsidies or providing trade protections. Many commentators have pointed out that the East Asian countries do not necessarily spend more money on industrial policy than others, but that their industrial policy is

more successful because they have a dense institutional network of co-ordination that facilitates information flows between the government and business, on the one hand, and between firms, on the other hand. It is also pointed out that industrial policies in these countries work not only by providing detailed solutions to specific sectoral problems but also by providing a broad 'vision' of the future of the economy, along which a voluntary co-ordination of activities could be achieved by private sector agents. In short, the recent debate has revealed that the issue of organisational design and institutional building is as much, if not more, important in determining the success of industrial policy as the issue of designing incentive schemes.'

### 2.3. 'New thinking' about industrial policy

Since the 2007/8 financial crisis, the systems-based approach to industrial policy has been increasingly taken-up by academics and policy-makers in the world's advanced economies. Thus, whilst this 'new industrial policy' thinking had been evolving for many years in the economic development literature – and was being incorporated into policy in some developing countries – it has only recently attracted the attention of policy-makers in the world's industrialized economies. As a result, contributors to the current debate come from a wide range of very different perspectives; and the systems-based approach is an eclectic one that is emerging from the cross-fertilization of ideas from economics,[42] political economy, strategic management and industrial psychology.

As discussed above, although the specifics of industrial policy are necessarily heavily dependent upon a country's local circumstances and institutional capabilities, there are nevertheless some general principles that have been identified as useful in guiding the design of policy. Taking a market-failure perspective, Rodrik (2009:19-21) identifies the main 'elements of an institutional architecture' for industrial policy as being: high level political leadership and support; institutions within which information sharing and social learning can take place; and mechanisms ensuring transparency and accountability. In other words, effective industrial policy requires clearly articulated shared objectives as well as 'embeddedness', 'carrots and sticks' and 'accountability'.[43]

Because knowledge about the existence and location of spill-overs, obstacles to structural change and market failures are widely diffused, industrial policy needs to be embedded within society: there must be institutions at the national, sub-national and sectoral levels within which public and private actors can come together not only to share information and to solve problems in the productive sphere but also to learn about the opportunities and constraints faced by the other. There must be governance systems to detect and correct mistakes and to manage associated vested interests; and because special interest groups and recipients of public support have strong incentives to pressure the government for policies that serve their own interests, there must be safeguards against 'capture'. Conditions for support must be clearly articulated and there must be mechanisms for monitoring performance and sanctioning under-performance. Finally, because society at large is intended to be the ultimate beneficiary of industrial policy, there must be participatory political institutions to ensure legitimacy and consent and mechanisms to ensure transparency and accountability.[44] For Rodrik (2009:100),

> 'the right model for industrial policy is ... strategic collaboration between the private sector and the government, with the aim of uncovering the most significant obstacles to restructuring and determining what interventions are most likely to remove them. Correspondingly, the analysis of industrial policy needs to focus ... on getting the policy *process* right'.

Tracing the development of modern economic growth theory, Nelson (2008:13) goes further, arguing that by 'bringing institutions under the umbrella of evolutionary theory, evolutionary economics now has the capability to provide a broad, coherent and useful theory of economic growth as experienced in the advanced industrial economies.' Building on the work of the structuralist development economists, evolutionary economists take a dynamic view of industrial policy, in which innovation and learning processes assume a central role. In this, markets, themselves, are institutions, the effectiveness of which 'cannot be separated from the contribution of supporting institutions and policies'.[45] However, as Nelson (2008) points out, it is important 'to recognize the complexity of many market relationships, their embedding in broader social and institutional structures, and the elements of co-operation and trust that often are essential if markets are to work well.'[46]

The 'innovation systems' literature recognizes this complexity and sees a country's national system of innovation – encompassing 'the wide range of institutions that are involved in supporting and orienting the dynamics of economic activity where innovation is the key driving force'[47] – as being an important source of competitive advantage. Here, an important focus is 'on the processes for the generation, absorption and commercial exploitation of knowledge,' which, in contrast to the neo-classical approach, is viewed as 'heterogeneous, context-specific, tacit and "sticky"'.[48] From this perspective, because of the evolutionary nature of economic systems and institutions – and the importance of recognizing and responding effectively to changes in the competitive environment – there must be processes to ensure that emerging opportunities and constraints are identified and that the system is able to adjust accordingly. Industrial policy must therefore be capable of adapting to accommodate shifting environmental conditions. To avoid 'lock-in' to outmoded standards or practices and to facilitate movement to better ones, the industrial strategy process must facilitate the participation of a wide range of groups, not only in identifying areas for improvement but also in coordinating movement of the system towards superior activities.[49]

The systems-based approach has been described by some as 'soft' industrial policy,[50] 'based on a more facilitative, co-ordinating role for government' where the objective is 'to develop ways for government and industry to work together to set strategic priorities, deal with co-ordination problems, allow for experimentation, avoid capture by vested interests and improve productivity'.[51] Considering the relationship between the state and private actors in managing the process of economic development, Griffiths and Zammuto (2005) draw on the political economy and strategic management perspectives about the competitiveness of national industries and firms. In contrast to the traditional approach that views them as competing, they argue that when viewed as parallel, insights emerge 'that are not inherent in either body of literature alone'.[52] Whereas the orientation of the political economy literature is largely state-centric (arguing that national competitiveness is enhanced by government intervention), the strategic management perspective is largely firm-centric (arguing that minimal government intervention delivers competitiveness). However, when the focus is shifted to the interaction between state and firm actors in decisions affecting the structuring of industry, a 'joint governance' approach is much more effective in promoting national competitive advantage than relying on markets, firms or government alone.

## 2.4. The UK's (belated) 'renaissance of interest' in industrial policy

Until very recently, the UK did not explicitly embrace the idea of industrial policy. This is despite calls from prominent captains of industry for leadership and support. In the 2007 Gabor Lecture at Imperial College, entitled 'Why Manufacturing Matters', Sir John Rose, chief executive of Rolls-Royce, expressed the view that since the mid 1960s, the UK's increasing reliance on the services sector, particularly financial services, created growing risks for the economy as a whole. Advocating support for 'high value' manufacturing to act as a counter-balance to high value services, he called for the creation of a more diversified economy. He urged the government to provide a clearer sense of direction for UK industry, highlighting the need to articulate both its objectives with regard to the kind of manufacturing industry it would like to see develop and a strategy for achieving them. 'We need,' Rose said, 'a framework, or a business route map, to create context, drive focus and help prioritise public and private sector investment.'[53]

However, he acknowledged the political obstacles to making progress in these areas. Although New Labour had been in government for over a decade, the non-interventionist stance inherited from the Thatcher government remained in place: 'Unfortunately, the fear of returning to anything that remotely resembles centralized industrial planning has resulted in even the discussion of such a framework being off limits'.[54]

Several months later, at a meeting of the House of Commons Business, Enterprise and Regulatory Reform Committee in February 2008, Rose responded to questions from MPs about the future of manufacturing in the UK. When asked what the main aspects of a manufacturing strategy should be, he replied: 'In general, the government should do more to set priorities ... It should have a better view about the technologies that the UK needs in the future and set future priorities. If you ask me about a lack of technology vision and sufficient amounts of funding, then both need to be improved'.[55]

Later in the year, with the recession deepening and unemployment continuing to mount, New Labour took its first hesitant steps towards accepting a possible role for industrial policy, with the appointment of Peter Mandelson as Business Secretary. Believing that the UK had become overly reliant on the financial services sector, Mandelson saw the need to rebalance the economy and sought advice from Rose and other British industrialists. The result was a 2009 white paper, entitled *New Industry, New Jobs: Building Britain's Future,*[56] calling for a 'new activism' on the part of government to assist businesses in exploiting new, advanced technologies by means of 'targeted intervention'. To strengthen the economy's capacity for innovation, growth and job creation, a Strategic Investment Fund (SIF) was established, supporting a range of investments across the UK economy.

However, progress stalled when the new Conservative-Liberal Democrat Coalition came to office after the 2010 general election; and the SIF was discontinued. In a speech at the Cass Business School, the new Secretary for Business, Innovation and Skills, Vince Cable, told the audience that '[w]hat we shouldn't be doing is trying to micromanage the economy at the level of individual companies or so-called national champions: trying to supersede the judgement of markets'.[57]

But the government soon started moving closer to acknowledgement of a role for the state in providing greater support for industry. In 2011, it set out its vision for the economy's recovery in *The Plan For Growth,*[58] which included horizontal industrial policy measures and the identification of key sectors where barriers to growth were to be addressed. In his 2011 Budget Statement, George Osborne, Chancellor of the Exchequer, talked about the need for a 'march of the makers'.[59] And in a speech at the Policy Exchange, Cable called for a 'New Industrial Policy' aimed at supporting innovation and technological leadership, developing skills (centred on apprenticeships), re-building supply chains and implementing supply-side reforms as a means of building and maintaining business confidence.[60] In September 2012, with the London 2012 Olympic Games still alive in the public imagination, Cable set out his expanded vision for a long-term UK industrial strategy – making direct reference to the strategy that had contributed to Britain's Olympic success:

> 'Over the last few weeks the papers have been full of pictures of athletes. The Olympics provided a unique opportunity to celebrate the things the UK does well. ... Our athletes achieved what they did because of their years of commitment and planning. I was initially a sceptic; I could see the costs but not the benefits. But the games proved to be a success. Years of planning and investment in pursuit of a clear and ambitious vision were realised. ... I think there is a read-across to the way we approach our economic future. We need to take the same approach: a clear, ambitious vision; the courage to take decisions that bear fruit over a long period; openness to new opportunities as they develop; focus on the things we do best; and an enduring commitment far beyond a five year parliament or spending review period'.[61]

Thus, whilst much of the discussion about 'Olympic Legacy' following the London 2012 Summer Games has focussed on sport-related issues, policy-makers and politicians from across the political spectrum are also looking for parallels that might be drawn between the approach that succeeded in turning around the international competitiveness of UK elite sport and the lessons that might be learned for evolving industrial strategy to address the challenges currently facing key sectors of the UK economy. We thus now turn to an analysis of the approach taken by the UK elite sports system, which has much in common with the current systems based approach to industrial policy. Like business, prior to the strategic changes initiated during the 1990s, UK elite sport had also suffered from a history of poorly informed intervention, lack of stable funding and little in the way of support services; and like much of UK business – manufacturing in particular – it was up against competitors that had none of these disadvantages.

## 3. ‘Creating winners’ in UK elite sport

The performance of the British Olympic team at the 2012 Summer Olympic Games marks yet another stage in its remarkable competitive turn-around since its dismal showing in Atlanta 1996. The change in the team’s fortunes has also been extremely rapid. As early as the following Games in Sydney, its performance had clearly improved, with steady gains being realized ever since. Whereas the team won 15 medals in Atlanta – only one of which was gold – it won 28 in Sydney, going on to win 30 medals in Athens 2004, 47 in Beijing 2008 and 65 in London 2012. In the overall Summer Games’ world ranking, the UK climbed from 36$^{th}$ in 1996 to 3$^{rd}$ in 2012. Team GB has also performed well in the Paralympic Summer Games, holding the world ranking of 2$^{nd}$ since the 2000 Games and 3$^{rd}$ in 2012, where it still exceeded its target of 103 medals, taking home 120 (of which 34 were gold).

Despite these overall results, Team GB’s performance has not improved uniformly across all sports; nor has the improvement been as obvious in its performance in the Winter Olympic Games. In both cases, this is a consequence of strategically selecting those sports in which the UK has a realistic chance of international success and targeting resources accordingly – ‘picking winners’ is thus at the heart of the elite sport strategy. The results are quite clear: Team GB’s performance has improved most markedly in athletics (moving from 25$^{th}$ in 1996 to 4$^{th}$ in 2012); cycling (moving from 12$^{th}$ in 1996 to 1$^{st}$ in 2008 and 2012); rowing (moving from 7$^{th}$ in 1996 to 1$^{st}$ in 2008 and 2012); sailing (moving from 9$^{th}$ in 1996 to 1$^{st}$ in 2000, 2004 and 2008 and 3$^{rd}$ in 2012); and swimming (moving from 12$^{th}$ in 1996 to 3$^{rd}$ in 2008, but falling back to 14$^{th}$ in 2012).[62] All of these are sports selected for competitive support. In the Winter Games, the British Olympic team moved from Bronze to Gold between 1994 and 2010; but only 2 medals were won in 2002 (one bronze and one gold) and one each in 1998 (Bronze), 2006 (Silver) and 2010 (Gold). The UK’s Winter Olympics world ranking also improved rather less dramatically, from 21$^{st}$ in 1994 to 16$^{th}$ in 2010.

### 3.2. From indifference to cooperation: Politics and UK sport

As discussed above with respect to UK industrial policy, Conservative governments of the 1980s espoused the view that markets should be prioritized and that, as far as possible, the state should not get involved in private sector activities. A similar approach applied with respect to sport, where the UK’s Sports Councils (for England, Scotland, Wales and Northern Ireland) maintained a generalist role in sport promotion, under the ‘Sport for All’ credo. However, when Margaret Thatcher was unseated as prime minister in 1990 and was succeeded by John Major, a decade of political indifference towards sport was brought to an end. Unlike Thatcher, who saw no real benefit in sport, Major, himself a lifelong cricket fan, discerned the political relevance of sport – and it was his strong personal support that would prove instrumental in the strategic changes of the 1990s upon which the British Olympic Team's competitive turn-around was based.[63]

Among the first of the institutional changes affecting British sport policy was the separation of elite from mass-participation sport. In July 1994, the Sports Minister, Iain Sproa, outlined proposals to replace the UK Sports Councils with the UK Sports Council (UKSC) (for elite sports) and the Home Country Council (for mass-participation sports). The UK also started to 'pick winners'; whereas the former Sports Councils concentrated on around 110 sports, the new UKSC concentrated on around 30. Thus, it no longer funded over a hundred different sports, regardless of performance potential, as it had before. Instead, funding was targeted on those sports in which the UK stood a realistic chance of international success – reducing the number by around seventy five percent.

During the early 1990s, whilst it was clear that lack of political interest had resulted in the chronic under-funding of UK elite sport – both in absolute terms and by comparison to other countries – it was less clear how this could be addressed. With the UK in the grip of recession, devoting exchequer funding to sport was more likely to create political enemies than capital, particularly in the wake of 'Black Wednesday,' and Sterling's humiliating exit from the European Exchange Rate Mechanism (ERM) in 1992, which had already severely damaged the government's reputation for financial prudence.

An alternative to exchequer funding, however, lay in national lottery funding, an idea that many other countries in Europe had already successfully adopted. This had been mooted under Thatcher, who disapproved on the basis that some people would 'get something for nothing', with others objecting to the government promoting gambling. With Thatcher's exit, the way was open for change; and in 1993, under licence by the Major government, the UK's National Lottery was set-up, with around 30 percent of the proceeds earmarked for good causes. The idea of a lottery was not, however, simply borrowed from Europe. Whereas most European lotteries are operated by the state, the UK lottery, in line with the culture of the time, is privately operated on a state-franchised basis. The first draw was made in November 1994 – some eighteen months before the poor showing of UK elite sport at the Atlanta Olympics in 1996. But lottery funding was only to be the first of a few, albeit highly significant, changes in the government's approach to elite sport.

In addition to significantly increased funding, Major's government also initiated the primary institutional change affecting British elite sport by creating the quango,[64] UK Sport, to replace the UKSC as the strategic lead body for elite sport, having much closer links with the British Olympic Association. Although mooted in 1994, following the British Olympic team's disappointing performance in the 1996 Atlanta Summer Games, UK Sport was set-up in January 1997 and granted a licence to distribute Lottery funding to elite sport shortly afterwards. There were discussions about establishing a UK Academy of Sport. But less than three months later, John Major was swept out of office by New Labour.

Under Tony Blair's New Labour government, one of the most positive developments impacting British elite sport was a major change in the uses to which lottery funding could be put. Instead of restricting it to the funding of facilities, it was decided that money could be allocated to individual athletes. Not only did this mean that athletes were no longer obliged to juggle employment with training and competition; it also meant that funding could be allocated to coaches and other specialists.

But it was not all good news: the new administration also brought the debacle of the 2005 Athletics World Championships, which came on the heels of two unsuccessful bids by UK cities to host the Olympic Games. As far as the Olympic bids were concerned, the International Olympic Committee had listed various reasons for rejecting the Birmingham bid for the 1992 Games, including lack of support from the Thatcher government. But Manchester's bid for the 2000 Games did little better, despite strong and active support from the Major government. It was thus generally felt that only London had the international clout to succeed in bringing the Olympics to the UK. But having won the right to host the 2005 Athletics World Championships in London, governmental lack of support was to intervene once again, threatening to undermine the ability of the UK to attract major international sporting events in the future.

In 2001, the then Sports Minister, Richard Caborn, and Culture Secretary, Tessa Jowell, decided that the cost of constructing a new stadium at Picketts Lock, in London, would be too high – and suggested hosting the Championships at existing facilities in Sheffield, instead. This plan was rejected, on the basis that having London as the host city had been a key part of the decision to accept the London bid. London was thus forced to withdraw its offer to host the World Championships, which instead went to Helsinki. This was widely considered to be a humiliating result, as it was the first time that any developed nation had withdrawn an offer to host a major international sporting event.[65] However, it did not undermine London's bid to host the 2012 Olympics, which served to reinforce a very high profile, medium-term commitment to elite sport; and any under-performance – by organisers or the team – would be not only very public but also politically unhelpful.

By the time 2012 arrived, New Labour had been unseated by the Conservative-Liberal Democrat coalition government, the UK was once again in recession and the cost of hosting the Olympics was being questioned. But in a subtle twist of irony, from 2010 onwards, the coalition government's backing for the London 2012 Olympics was based on the argument that it would support both the UK's construction and tourism industries – which is very close to a Conservative-led government 'picking winners' in the private sector.

### 3.3. The UK elite sport competitiveness development system

Much of the credit for the steady and significant improvement in the British Olympic team's fortunes has been given to the increased funding provided by the National Lottery and the strategic leadership provided by UK Sport; and both have certainly played a significant part. According to Liz Nicholl, a former international netball player and now the Chief Executive of UK Sport, 'we were investing in the outcome of medal success.'[66] Since Olympic medallists attract additional funding from commercial sponsorship, UK Sport's investment of public funds has set into motion a virtuous cycle in which public investment is augmented by private sector investment funding. This enables UK Sport to oversee a financially well-resourced system in support of the processes of indentifying talent and developing the Olympic medal winning capabilities of UK athletes and sports.

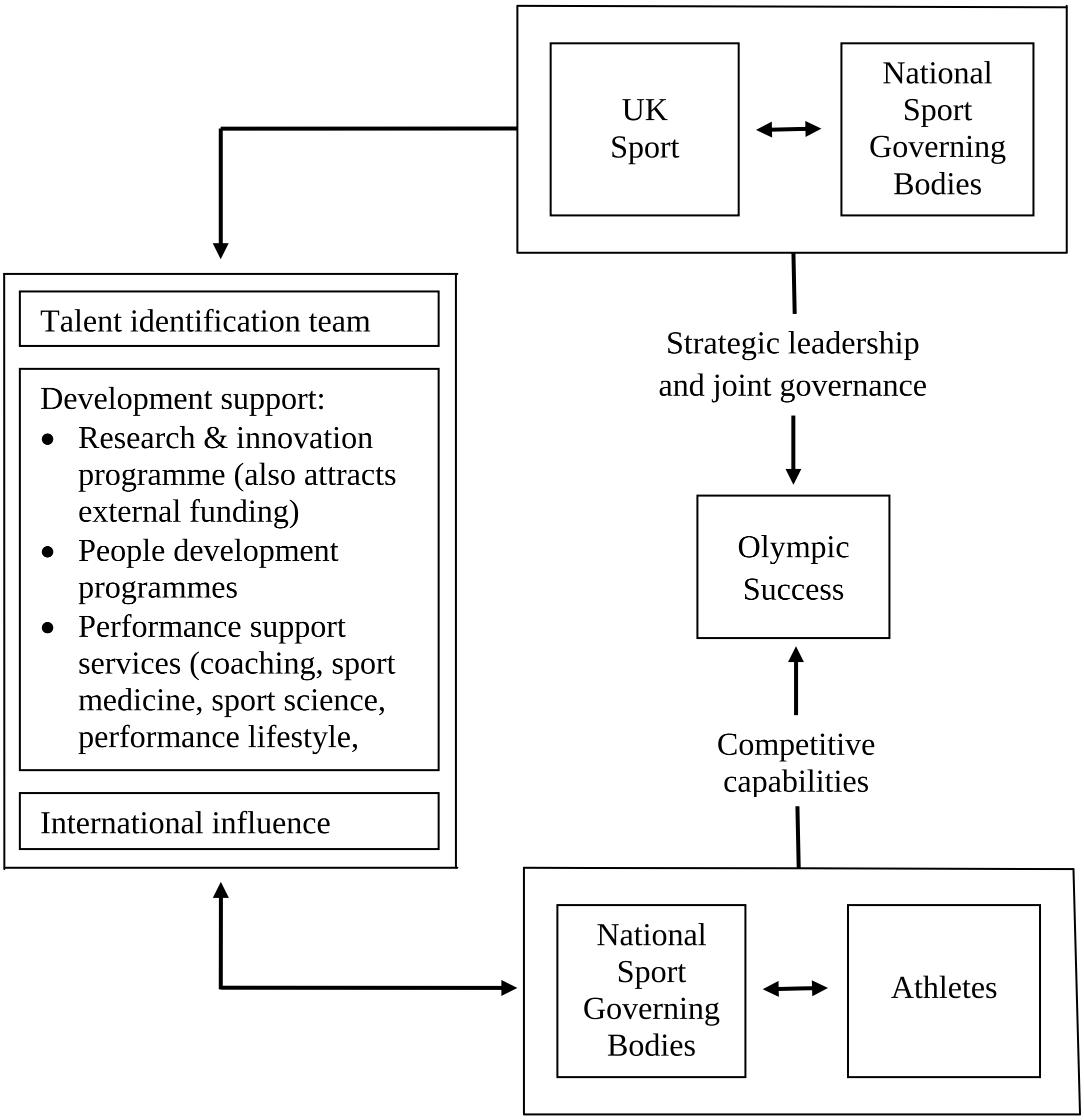
But finance is not the only critical success factor. Working with the UK's national sport governing bodies (NSGBs), UK Sport's mission is to *lead* elite sport in the UK to world-class success. According to Baroness Sue Campbell, also a former international netball player, and current Chair of UK Sport, in addition to predictable funding and a new culture focused on winning, 'the other big deciding factor was leadership. Someone had to articulate the mission and the vision.'[67] The people responsible for such leadership include UK Sport's Performance Director, working in partnership with the Performance Directors of the UK's NSGBs and with the British Olympic and Paralympic Associations.

Thus, at the highest institutional level within the UK's elite sport development system, there is strategic collaboration between UK Sport and the NSGBs, with the shared objective of creating and maintaining a system that supports the UK Olympic team's continuous improvement in international competitiveness. UK Sport serves as strategic lead body and the facilitator of the processes required for building international competitiveness, with the NSGBs having input into what those processes include and how they are carried out. Because the knowledge of how to recognize talent and what is required to succeed within particular disciplines resides at the level of the individual sports, the sharing of information between the NSGBs and UK Sport is essential in designing and maintaining effective processes that support their shared objective; and by facilitating the sharing of information among the NSGBs, the individual sports also benefit from the ability to learn from each other. Although competitiveness development programmes within particular sport disciplines vary, by facilitating information flows between UK Sport and the NSGBs – and between the individual sport disciplines – and by continually mapping the international sporting landscape, the UK elite sport competitiveness development programme as a whole is designed to evolve to meet changing requirements, exploit opportunities and remove obstacles as they become apparent. It is also able to not only identify the athletes and sports with the potential for international success that should receive support – and to target resources accordingly – but also to identify those for whom support should be reduced, or withdrawn, due to under-performance or obsolescence. In short, UK Sport's responsibilities are

> 'essentially ... to underpin and unlock the nation's Olympic and Paralympic performance potential by: investing a significant majority of its income into the World Class Performance Programme, and working closely with the national governing bodies of sport to ensure they operate as effectively as possible; working with partners to develop the people and systems that support our leading athletes, principally in the areas of coaching, talent identification and sports science and medicine practitioners and Performance Lifestyle, to ensure a continuing legacy for our investment; [and] seeking cutting edge research and innovative solutions to performance challenges'.[68]

With the support of UK Sport, the identification of talent and coordination of the processes supporting the competitive development of UK elite athletes who actually deliver success by winning medals takes place at the level of the NSGBs. Here, athletes receive support on three levels: 'Talent', 'Development' and 'Podium'. Thus, from the early stages of athletic development when talent is first identified, a 'no compromise approach' is taken in targeting investment funding towards athletes most likely to deliver medals at Olympic and Paralympic level, and resourcing them through world-class coaching, training and competition support, plus cutting-edge medical and scientific services, state-of-the-art sport facilities, means-tested 'Athlete Personal Awards' to help cover living and sporting expenses, and professional development support after sport.

**Figure 1: UK elite sport competitiveness development programme**



The structure of the UK elite sport competitiveness development programme is illustrated in Figure 2. As discussed above, UK Sport works in partnership with the NSGBs to provide strategic leadership and joint governance in support of the processes designed to identify, develop and hone UK elite sport competitive capabilities with the objective of maximizing the potential to deliver medals at international sporting events. The services supporting the identification of talent and the building and strengthening of competitive capabilities are resourced by UK sport, with additional support from external funding sources, particularly in the areas of research and innovation. Working in partnership with the NSGBs, the UK Sport Talent Team identifies promising athletic talent, whose eligibility is to be confirmed for performance support services; these include coaching, sport medicine, sport science, performance lifestyle and research and innovation. In order to create a system that maximizes medal winning opportunities for British elite athletes, the Innovation and Research Programme supports innovation and research in the areas of training science, performance medicine, equipment and coaching technologies. By working in partnership with the NSGBs, ideas that might be developed and evolved to improve the performance of British athletes are actively solicited. The People Development Programme supports the development of talent in such areas as identifying, coaching and nurturing UK athletic talent; and the International Influence Programme ensures that there are people representing UK elite sport in key places, internationally, to ensure that the UK has ‘voice’ and the ability to influence decisions in the global development of sport.

The institutional environment within which UK elite sport operates is therefore no longer comparable to that of a ‘free’ market system; but it is most definitely a ‘competitive’ one. There is competition for team places as well as for funding, both within individual sports and between different sports. However, competition takes place within a framework designed to maximize performance in the areas selected, to enable learning from failures and, where possible, turning them back into successes. This requires a very active and strategic role for UK Sport and the NSGBs; and it demands formulation of both short- and long-term objectives within a system designed to produce a continuous stream of winners.

Baron Sebastian Coe, a former double gold medallist and Chair of the London 2012 Organising Committee of the Olympic and Paralympic Games, sums up the requirements for competitive success in high performance sport:

> ‘there are four things you need. You need them all. Smart governing bodies, world-class coaches, talented athletes with the good sense to pick their parents carefully, then you need predictable levels of funding.’[69]

Thus, from 1997 onward, Britain's Olympic performance was no longer entrusted to the random interplay of competitive market forces and chance.

### 3.4. Potential challenges ahead, not least of all, 'political' ones

It is significant that UK Sport is a quango[70] – a public sector body, responsible for the investment of public funds – and that it has (so far) apparently not only managed to help deliver Olympic competitive success, it has also managed to protect itself from political decisions that might compromise its ability to deliver on its strategic objectives. UK Sport has also managed to avoid being 'captured' by elite sport. In many respects, Team GB's success in the 2012 Olympics provides evidence that UK Sport represents a significant public sector success story.

However, vulnerability to political decisions should not be underestimated. Even during the 2012 Games, UK Sport's certainty about exchequer funding extended only as far as the first part of 2015 – the period covered by the last Comprehensive Spending Review (CSR), but only halfway through the run-up to the 2016 Summer Games in Rio. Following the success of Team GB in London 2012 – and under heavy pressure from the British media and public – the government made an exception to its spending rules and guaranteed funding for the first two years of the next CSR period, 2015-16 and 2016-17. This provides financial certainty to plan for the next Olympic Games. However, according to Matt Slater, BBC sport news correspondent, the government's financial commitment 'ignores inflation and a predicted drop off in commercial backing. So how UK Sport shares out the cash is the crucial issue. There will be winners and losers.'[71]

In a more promising motion – that would further reduce financial uncertainty over the longer-term and reduce Team GB's vulnerability to the vicissitudes of politics – Labour Leader Ed Miliband is proposing a cross-party review of the elite sport funding system: 'My proposal to David Cameron has been to put together a 10-year plan across all parties. Let's not make it political, let's get all the sporting bodies involved and look at how we do it.'[72]

## 4. UK Olympic legacy for business

Clearly, sport is a different business from other industries, with its own structure, culture and peculiarities. But if the approach adopted by UK elite sport is viewed not as a 'strategy for sport' but as a strategy designed to build and maintain international competitiveness, more potentially transferable insights for industry begin to emerge. Since many of the approaches to elite sport competitiveness are non-sport specific – and therefore also not industry specific – our analysis takes this as its starting point and avoids delving into the minutiae specific to winning a gold medal in a particular discipline. Instead, we consider the case of UK elite sport from the perspective of the systems based approach, which allows us to identify some of the most significant *strategic* components that might be adapted to inform thinking about the design of policy aimed at strengthening the international competitiveness of select sectors of UK industry. Given the general impression that the term 'policy' implies a politically driven, top-down approach, rather than the coordinated actions of both governmental and non governmental institutions to fulfil a commonly held set of ambitions, we use the term 'industrial strategy' to describe this approach for industry.

In general, the objective of industrial strategy is to improve the international (market) competitiveness of a country's firms and industrial sectors through interventions that not only counter 'market failures' but also improve on market outcomes. It includes horizontal policies designed to improve broad segments of the economy's supply side, vertical policies aimed at particular sectors, firms or activities and public-private strategic collaborations to improve the international environment within which firms and industries operate. Because markets are embedded in broader social and institutional structures, the effectiveness of industrial strategy depends to a large extent upon local circumstances and capabilities as well as the existence of institutions in which information can be shared and social learning can take place.

In the case of UK elite sport, two broad areas stand out as contributing to the reversal in the British Olympic team's fortunes following the 1996 Atlanta Summer Games and to supporting its steady improvement ever since. These include: (1) an enabling competitive environment in which access to a reliable source of finance forms an important part and (2) an institutional structure to provide strategic leadership and support as well as to coordinate the identification of potential 'winners' and the on-going competitive improvement of elite athletes and sporting teams. The UK elite sport strategy is also one that encourages and facilitates the dynamic processes underpinning learning, innovation and responsiveness to changes in environmental opportunities and constraints. Taken together, these areas – if available to medium sized UK businesses and industrial sectors – would facilitate improvement in the UK's international industrial performance.

## 4.1. Team GB and 'UK Ltd'

It is significant that prior to changes in both funding and strategic leadership following the Atlanta Games, the British Olympic team was in a not dissimilar position to that faced by many UK small and medium sized manufacturing businesses today. The NSGBs were for the most part under-resourced and operating largely independently of each other, in a 'laissez faire' system with little or no strategic leadership and support. The disjointed nature of sport policy in the UK is evident in recognition by the Sports Council in 1993 that 'the UK's sporting achievements have too often been secured in spite of the disparate goals having been set by our sporting community.'[73]

In any given year, only a handful of athletes managed to fight their way to Olympic or Paralympic level; but with no effective organizational structure, athletes competed largely as individuals, with little or no access to the resources of a team within which to develop their capabilities, learn from each others' experience and build upon it for future events. According to Peter Keen, a former cycling world champion and coach,

> 'My career in sport, pre-lottery, was that of a classic Alpinist. We were trying to climb this thing, but we weren't leaving any maps or ropes for anyone else. If anything, quite the reverse. That switch from one-off success to an approach that is a quite different set of values is probably the single biggest difference.'[74]

Thus, it was his conviction that 'the challenge was to convert those highly motivated, highly talented individuals into a system'.[75] Between 1997 and 2003, as Performance Director of British Cycling – working in partnership with UK Sport and the Performance Directors of the other NSGBs and armed with National Lottery funding – Keen set off a revolution that ultimately transformed the sport, with the British cycling team rising to dominate world cycling events. He went on, in 2004, to serve as Performance Director of UK Sport, where he applied the same philosophy to British Olympic sport as a whole, with similar effect.

This shift – from a group of talented individuals succeeding against the odds, to a system designed to build and maintain competitiveness over time – is also the starting point for conceptualizing an effective strategy for industry. The two main components of the system – an enabling, competitive environment, including access to a competitive source of finance, and an institutional structure capable of providing strategic leadership and support as well as coordinating the identification and support of potential 'winners' are also applicable to industry. The way in which these systems are constructed and operated, however, cannot simply be copied – for precisely the same reasons that the UK elite sport system could not be a carbon copy of the Australian system from which it took inspiration. To be effective, the approach to industrial strategy must fit the situation, culture, institutional structure and objectives of the economy and business sectors to which it is being applied.

Beyond these two high level components of the elite sport strategy, there are also other components that might be used to help inform a competitiveness strategy for smaller businesses within selected UK manufacturing sectors. Whilst raw talent is still crucially important, much of the British Olympic team's success is founded on recognising areas of potential competitive success; identifying likely winners early-on; supporting, training and coaching them to maximise their chances of developing into world-class competitors; and providing the predictable financial resources and the organisation required for these strategic processes to work effectively. All of these have strong parallels to the essential components of a strategy for competitive success in business.

Britain clearly possesses the entrepreneurial, production and innovation capabilities required to successfully compete in global markets. In a wide range of industries – from sparkling wine to audio equipment and sports cars – British producers regularly win international awards. However, the absence of a coherent and effective institutional framework within which they, along with emerging and future businesses, can develop the strategic capabilities required for continued international competitive success, is hampering the performance of these and other sectors. It is therefore also hampering the performance of the broader economy of which they form a part.

### 4.2. Enabling competitive environment

Peter Keen's reference to his early 'Alpinist' experience in UK elite sport highlights the value of an enabling competitive environment, in which athletes and teams are able to focus on developing their competitive capabilities, rather than being distracted by too many other considerations. Finance has been given much of the credit for the success of UK elite sport; but as we have seen, Peter Keen cites the development of the system as being important. The reality is that both views are probably correct. Finance is essential and in many ways serves as a foundational component of the elite sport system. However, it is important to recognise that finance is not, in itself, sufficient: it allows the system to exist, function and develop. But neither the system nor funding can work effectively without the other.

At the time the under-funding of elite sport was acknowledged, the UK economy was, as it is at present, in recession. This helped provide the impetus for a National Lottery, to provide funding for sport without placing additional demands on the exchequer – which would likely have had adverse political consequences. However, it was the political leadership of the John Major Government that ultimately effected the changes required to set-up the Lottery and to establish the public sector strategic lead body, UK Sport, to invest almost a third of the proceeds in UK elite sport. Predictable funding, in turn, facilitated the setting-up – and operation of – the processes underpinning the evolution of a successful strategy for competitiveness development in elite sport.

It should not, however, be overlooked that the changes were as much about removing obvious obstacles to success as they were about fostering exceptional performers. Prior to Lottery funding being made available, the UK was competing against many already well funded and organised teams. The combination of stable funding, strategic leadership and a system within which to develop athletic competitive capabilities quickly levelled the playing field so that UK elite athletes and teams could compete with those of other countries on a more equal footing. Thus, removing prior handicaps may also go a long way towards explaining the speed of the turnaround in British Olympic fortunes.

This is also true of the environment within which many British businesses operate, except that step changes in finance and support have yet to come. The UK is one of the very few developed countries without a system for directly supplying finance and other resources to growing businesses. Germany, for example, has a business bank; and the German government underwrites bank loans to businesses in order to spread the risks involved in lending to start-ups, which, like lottery funding for UK sport, has the effect of reducing reliance on exchequer funding. Other services, such as legal services, are also provided to German businesses, allowing smaller firms to focus on their core business and to avoid distraction by other issues. For smaller businesses in particular, access to stable long-term bank funding fosters a focus on the growth and development of competitiveness, rather than constant financial concerns serving as a distraction. This availability of ‘low maintenance’ finance, on competitive terms, is thus comparable to the system of sport funding, where it allows a similarly sharp focus on what the organisation is there to do, rather than how it is to be funded.

The absence of a source of longer-term, stable bank finance for smaller UK businesses has its roots in the historical development of British industry. Unlike many nations which industrialised later, almost from the beginning of the industrial revolution, UK firms have been reliant on the stock market for finance. This meant that growth typically required selling a significant stake to share holders. Whilst this can be an effective source of funding, widely-dispersed ownership – particularly where investors collectively own the majority of the shares – has been recognized as a constraint on the ability of senior managers to focus on the productive purpose of the business.[76] This is due to the need to prioritize the short-term interests of shareholders and avoid the risk of hostile action, often to the detriment of the longer-term competitive development of the business.

Since investment in productive activities necessarily precedes the realization of returns – often over a medium or long term period of time – facilitating access to a cost effective source of finance for new or existing businesses during a recession would make a credible contribution to economic recovery. However, although attempts to make more credit available to smaller businesses have been made, they have so far lacked the relative scale and clarity that was the hallmark of funding for sport – and they have not significantly changed the game. Efforts to encourage existing banks to lend to businesses, such as Project Merlin, announced in February 2011, which was to deliver £190bn to businesses, have been largely unsuccessful. This is in no small part the result of government attempting to keep using the same system of funding as before – an historic, rather than forward-looking strategy – rather than designing something fit for purpose. A step in this direction has more recently been made, partly in response to the findings of Tim Breedon's report on long-term structural problems in the supply of finance to UK businesses. In September 2012, UK Business Secretary Vince Cable announced plans to create a UK Business Bank that would be independent of existing banks and financed by the wholesale money markets.[77] Like UK Sport, which distributes funding to organisations and individuals in elite sport, the UK Business Bank would be set-up and operated at arm's length from government. Whether it would also play any kind of coordinating role, comparable to that of UK Sport, is at present unclear – as is whether or not it will be able to provide a step change similar to that in sport.

The UK elite sport strategy creates an environment that also delivers other resources in support of the building of athletic competitiveness capabilities. In many ways, these are the sporting equivalent to horizontal and vertical industrial policies – they are aimed at strengthening both the 'supply side' of the sport sector in the UK and particular support services, such as sport technology and sport medicine. By providing a steady supply of sporting talent, for example, the Home Countries Sports Councils provide the framework within which athletic abilities in mass-participation sports are developed. This creates the pool of athletic talent that can be drawn upon for elite sport. For elite athletes, the provision of required resources (such as sporting equipment and sport medical services) and the removal of obstacles (such as the distraction of having to balance training with the demands of full time employment) allows athletes to concentrate more fully on competition. UK Sport also makes sure that there are individuals in key locations within the international sporting community to ensure a voice for UK elite sport in decisions affecting the development of sport, globally. As these examples illustrate, institutions have been put into place to create an environment that enables improvements in competitive capabilities and international competitive success and supports the more specific processes designed to deliver medals in international sporting events.

Considering what industry might learn from these approaches in sport, a similar logic applies. But in the case of industry, competitive success is realized in markets. Since markets are institutions that rely upon supporting non-market institutions and policies in order to function well, the provision of such a supporting framework can serve as an enabling factor for the efforts of firms and industrial sectors to realize their competitive potential. These might include both horizontal and vertical policies in support of learning and innovation, which is the driving force behind improvements in international industrial competitiveness. Institutions, such as universities, research centres and technical institutes, are important supports for the processes of technological progress and of knowledge generation, absorption and commercial exploitation. Due to the dynamic and evolutionary nature of economic progress, institutions supporting the process of recognizing and responding to changes in the social, political and economic environment – i.e., taking advantage of new opportunities and removing obstacles and constraints, avoiding lock-in to outmoded activities and facilitating advancement to better ones – are also important in supporting the competitive advancement of firms and industries.

### 4.3. Institutional structure - supporting competitive improvement

At the level of elite sport, itself, the British Olympic team’s competitive success is founded on a system providing high level strategic leadership and support from UK Sport and the NSGBs and an institutional system to facilitate coordination of the processes required for both the identification of talent and continuous competitive improvement in elite sport. Strategic leadership facilitates the development and articulation of objectives and the sharing of information in institutions involving both ‘top-down’ and ‘bottom-up’ interaction.

The strategic partnership between UK Sport and the NSGBs is one of ‘joint governance’, the purpose of which is to create and maintain a system that supports development of the capabilities required for international competitive success and within which promising athletes and teams are able to develop and progress.

By providing high-level strategic leadership and support, allocating predictable funding, articulating the conditions for support and overseeing the process by which performance is monitored, success is rewarded and under-performance is sanctioned, UK Sport and the NSGBs provide the institutional framework within which the international competitiveness of elite sport athletes and teams is developed and strengthened. However, the coordination and effort that goes into actually delivering medals takes place at the grass-roots level, within the NSGBs, where talent is identified and the processes supporting the competitive development of UK elite athletes and sporting teams takes place.

The competitive development system in elite sport was largely built upon the existing institutional framework within sport; and only one new institution – UK Sport – was created. However, there was significant change in the resourcing of talent identification and development, the uses to which lottery funding could be put, and the role played by the NSGBs. This institutional structure is deceptively simple; but along with a stable source of finance and strategic leadership, it has much to offer in terms of ideas about institutional design for developing competitiveness within UK industry.

As noted above, the commitment to sport by successive UK governments – even successive ministers for sport – has been subject to the vagaries of politics. Nevertheless, the few political decisions since the early 1990s that have been made, have radically changed the environment within which elite sport operates. These have included national lottery funding; permitting the use of lottery funding for resources other than facilities; enabling key institutions to focus on specific areas of specialisation; and the government's support (across administrations) for hosting the UK Olympic Games in London, creating a longer-term focus from the time the bid was accepted. These were largely one-off decisions that happened to play a positive role in the evolution of the UK's elite sport programme. But they demonstrate the value of the joint governance approach to strategic decision-making in UK elite sport. Since the NSGBs have the knowledge of the local circumstances confronting their sports, they are the institutions best-placed to participate in high-level decisions that will affect them. The relative infrequency of politically-driven government decisions affecting UK elite sport thus lends stability to the system.

The effectiveness of the strategic collaboration between UK Sport and the NSGBs – and its ability to deliver sustainable improvements in competitiveness – is dependent on the top-down and bottom-up elements remaining in balance, with neither being captured by the other. The loss of this balance can be extremely counterproductive: Excessive top-down influence can result in the interference of political ideology, with strategic plans embodying insufficient local knowledge and understanding of the potential for winning and the requirements for achieving it; it also risks inflexibility. Conversely, capture of the top by the bottom risks chaos – and a situation akin to that which produced the 2007/8 financial crisis.

All of this has clear implications for smaller businesses in competitive market places. Firstly, the fewer the changes required to build an institutional framework capable of supporting the strengthening of industrial competitiveness, the easier and quicker it will be to implement. Thus, to the degree that industrial strategy can build upon the existing institutional framework – including such institutions as governmental agencies with responsibility for industry, trade and industry bodies, universities and technical institutes – the more effective it is likely to be in delivering rapid results.

Secondly, whereas sport has a regular schedule of events, with inbuilt and easily identified criteria for success, this is less clearly the case in industry, where there are fewer fixed points and success can be based on a wide range of indices. As a result, for industrial strategy to deliver its objectives, the input from actors in industries and firms is even more crucially important than it is in sport, particularly with respect to identifying not only areas to target for development but also those where support is no longer either needed or justified. Similarly, whilst the more obvious indicators of business success include such things as export sales, number of employees, revenue growth and product innovation, there are others that are less obvious. Here, it is important to develop institutions capable of soliciting information from organizations that are at the cutting-edge – and hence more likely to be able to identify indicators that are more specific to existing and emerging technologies, innovations and competitive situations. The design of industrial strategy is therefore necessarily reliant on institutions facilitating and coordinating information flows between the government and industrial sectors as well as between these institutions and local level ones both within industry and sectors involved in the processes of innovation and knowledge generation.

Thirdly, the effectiveness of a collaborative strategic relationship between public sector and non-governmental organisations is predicated on the ability of government to implement strategic change in areas such as funding, the legal framework and conditions for support. But for these changes to be appropriate, the sharing of information among the various institutions within the system is essential. Thus, in an industrial context, institutions facilitating effective communication – between government and industry sectors, between sectors and the firms within them and between businesses themselves – are crucially important.

All of this puts a premium on the quality of relationships and on shared vision and objectives, which are generally in evidence within the elite sports system. But whilst the vision and aims are shared and relationships are generally cooperative, an effective strategy for developing and improving international competitiveness – whether it be in sport or in business – is one that also fosters competition, which serves as a mechanism for strengthening the competitive capabilities of teams and athletes, industrial sectors and firms. Without this, the strategy would clearly fail in its primary purpose – whether in sport or business. In short, the key to success lies in the nature of relationships, the balance between public and private institutions and the clarity of purpose. Relationships are not only as important as outcomes; the two are mutually dependent. Maintaining a balance, whilst at the same time maintaining the ability to evolve to meet changing requirements over time is, in many ways, the greatest challenge for any competitive system.

## 4.4. Systems that learn and develop

Not all of the ideas contributing to the successful competitive evolution of the British Olympic team since the 1996 Summer Games were learned from scratch. Many were adapted from other teams and from best practice. However, they were not simply transplanted from one nation to another; they were instead used as a source of inspiration to help deliver the required changes but in a UK context. When Australian elite sport took inspiration from the East German model of building an elite sports programme, for example, it was concluded that whilst many of the ideas underpinning the East German approach were transferable, others (notably the programme of performance-enhancing drug-use by athletes) were inconsistent with an Australian context. Similarly when the UK later took ideas from the Australian elite sport system, whilst some elements of the programme were considered applicable and adapted to fit the British context, others were deemed to be of less value. An equivalent to the system of Australian sports academies, for example, was discussed; but partly due to cost and geographic proximity and partly due to difficulties in fundamentally altering the institutional structure underpinning British sport, the UK system was instead built around the existing system of NSGBs.

Similarly, an industrial strategy for the UK might well be rooted in existing trade and industry bodies, and in universities with experience in the generation and commercialization of new knowledge and technologies. The process of integrating institutions closer to the grass-roots level facilitates the system's ability to recognize and respond to change, to learn and develop more quickly, as it becomes progressively more sensitive to emerging opportunities and challenges. Taking local culture, institutional structure and conditions into account makes development not only simpler, politically, but also cheaper and quicker. Fully understanding the ideas behind the changes being made, when they are being adapted from other economies, rather than merely the appearance of them, thus becomes a crucial factor.

Another area for learning that is important to both sport and business, is learning from both failures – even relative ones – as well as successes. Within the UK elite sport system, the expectation is one of winning, not merely participating. This was evident in the profuse apologies from London 2012 athletes for not winning gold, even when they won silver or bronze – a far cry from the British culture of old. However, the response to under-achievement is constructive: Preparation and performance are carefully reviewed, to identify influential factors and develop remedial strategies; less successful athletes and teams that still have medal potential are helped to compete more effectively. They are also able to learn from more successful teams. British Swimming is a good example. Having failed to meet its medal target in London 2012, a post-games review was quickly underway. According to Michael Scott, British Swimming's Performance Director,

> 'Everything is on the table. We cannot close our mind to any ideas or suggestion … We have made approaches and not necessarily to people within the sport of swimming. You have to look at Team GB as a whole and say there is expertise in this country that could be used to sharpen our focus.'[78]

Team GB also continues to learn from best practice and the development of other countries' teams. So there is potential for the bar to be continuously raised, through a virtuous cycle of competitive development and improvement, nationally and internationally.

The same can be said about the possibilities for cumulative learning in the process of strengthening the international competitiveness of small and medium sized manufacturers. With an effective industrial strategy and appropriate institutional structures, UK businesses would have the improved potential to learn from best practice and from others' experiences – both domestically and internationally. They would not only be better equipped to adapt and implement the strategies, approaches and institutions upon which international competitiveness might be developed; they would also be able to learn from others, such as the successful export driven manufacturing sectors of Germany's 'Mittelstand', the Italian industrial districts and the industrial networks and clusters of other countries.

## 5. Conclusions

The UK's experience with industrial policy has been a chequered one. The first of the advanced economies to industrialize, Britain was also the first to evolve a strategy involving high levels of targeted government intervention to support the process of industrial development – as did the other major developed economies following the end of the Napoleonic Wars in 1815. Between World War One and the end of World War Two, there was a pause, followed by another period of targeted industrial intervention, this time aimed at the re-industrialization of war-torn Western Europe and Japan. For Britain, belief in the superiority of the American model of mass production – and pressure from politically well-connected special interests – meant that instead of 'picking winners' and investing in new industries and technologies, industrial policy tended to take the form of 'shoring-up losers', supporting growth by mergers and acquisitions (thereby creating a 'too big to fail' problem) and prioritizing the interests of the financial services sector and the City of London, often to the detriment of UK manufacturers. As a result, by the time the stagflationary crises of the 1970s arrived, it was evident that services – especially finance – was rapidly over-taking manufacturing as a driver of economic growth; and there was a retreat from active industrial policy, which was strengthened under the Conservative governments of Margaret Thatcher during the 1980s.

During the 1990s, concerns about competitiveness resulted in acceptance of a role for the state in encouraging the development of technological and productive capabilities. But the failure to evolve a coherent strategy for addressing the cumulative processes undermining British manufacturing capability – and the growing acceptance of asset bubbles as legitimate engines for economic growth – meant that little was done to address the growing imbalance between the financial and productive sides of the British economy. Although the government was forced to step-in when asset bubbles burst, the damage caused by the collapse of successively larger bubbles was camouflaged by the euphoria accompanying the inflation of the next – until the bursting of the housing bubble in 2007/8 from which the UK economy has yet to recover.

We thus come full circle and return to David Cameron's contention (quoted at the start of this paper) that 'What we need to do in this country is a massive rebalancing of our economy. We have been too reliant on government spending on housing and finance ... We have got to be more reliant on manufacturing and investment.'[79] Although he did not use the term, the implications for industrial strategy are clear. Since such a fundamental restructuring of the economy cannot be left to the random interplay of market forces, the inescapable conclusion is that the UK's recovery *requires* an industrial strategy. But what should it include and how might it be evolved?

The significance of the sporting case is that it was evolved and successfully implemented in the British social, political and economic context, building on and improving existing institutional capabilities. Ideas were taken from other countries and from best practice; but they were adapted to fit British circumstances – and they have been improved upon as the strategy has evolved. Thus, although there are details that are specific to particular sports, there are also aspects of the general strategic approach that can be used to inform the design and implementation of a strategy aimed at developing and improving the international competitive performance of UK industry. Analysis of the process by which UK elite sport effectively reversed its competitive fortunes since the 1996 Atlanta Summer Games thus offers insight into how a competitiveness strategy for industry might also be evolved.

The two broad areas for strategy that emerge from the elite sport case include: (1) the creation and maintenance of an enabling competitive environment (which includes institutions providing access to finance) and (2) the creation and maintenance of an institutional system providing not only strategic leadership and vision as well as a strategy for achieving it but also support for the processes involved in both identifying potential winners and facilitating coordination of the efforts required for the development and improvement of world-class competitive capabilities. The strategic approach is also one that encourages and facilitates processes that foster learning and innovation as well as adaptation in response to changes in the competitive environment.

The institutional framework supporting competitive improvement in UK elite sport was founded on the basic institutional structure already in existence, with only one new public sector institution, UK Sport, being created. The system was therefore easier and quicker to build because by building on existing institutions, it was easier to implement the required changes and to garner the support of those needed to make it succeed in practice. The primary changes involved a sharpening of focus in the institutions at the top of the system (UK Sport and the NSGBs) and the creation of an institutional system to coordinate the efforts required to facilitate the development of competitive capabilities that would deliver medals in international sporting events. Similarly, UK industrial strategy should build upon existing institutional capabilities of both public sector and non-governmental institutions and the knowledge residing in industry and trade bodies, universities and other such institutions involved in industry and in the processes supporting innovation.

It is important to note that whilst the knowledge of what is required to deliver competitive success often resides at the local level, the strategic leadership required to actually implement the changes required to deliver success can only come from the top. In this, the supply of finance assumes a pivotal role. In the case of elite sport, setting up the national lottery and allocating a proportion of the proceeds to sport required both high level political will by the John Major Government and targeted intervention – both of which were also instrumental in the establishment of UK Sport. In the case of industry, clearly, finance remains a significant problem, leading to other difficulties. Reliance on a dispersed shareholder-ownership model of corporate governance has been both a source of vulnerability and a constraint on business growth; and, particularly since the 2007/8 financial crisis, the inability to access sufficient levels of bank finance to support industrial development has contributed to the progressive under-representation of manufacturing businesses (and other sectors with a relatively long payback period) in the economy. However, in contrast to the elite sport case, the political will to intervene has been slow to materialize and the government appears to be hesitant to become actively involved. Thus, the effectiveness – if not even the possibility – of UK industrial strategy would seem to rely upon securing the support of a high level 'champion' in government. Further, given the importance of access to a reliable source of finance, the public sector strategic lead body might well take the form of the proposed UK Business Bank.

So what should go into an industrial strategy for the UK? Broadly, it requires high-level political leadership and support as well as articulation of a vision for the future of the British economy and the position of industry within it; it also requires a strategy for achieving it. It requires an enabling competitive environment, including access to competitive and reliable sources of finance as well as other services required for industrial sectors and firms to achieve international competitive success. It requires a joint system of governance to ensure balance in the relationship between public and private sector actors and institutions to facilitate information flows between government and industrial sectors, between industrial sectors and the firms within them and between firms themselves. It requires an institutional framework within which international competitive capabilities specific to industrial sectors and firms can be developed and improved. Finally, because of the dynamic and unpredictable nature of markets and technologies, it requires the institutional capability to recognize and respond effectively to change. In part, this will depend upon an institutional framework to facilitate and coordinate the processes required for the identification of new, promising industries and technologies – and the generation of supporting resources including requisite knowledge and capital requirements (physical, human and social) – as well as out-moded industries and technologies, the decline of which will need to be effectively managed. The details of such a strategy will depend upon the local circumstances and institutional capabilities of particular UK industrial sectors and the firms within them –which is beyond the scope of this paper but will be the focus of further research.

A significant contributor to the success of the elite sports strategy was, initially at least, not so much having a better system than anyone else, as it was having one at all. In the case of industrial strategy, although the debate about ‘picking winners’ has been a long-standing one, the absence of a coherent strategy to ensure an enabling environment for effective competition in markets and to lead and support the development and strengthening of competitive capabilities of British businesses and industrial sectors – a strategy capable of producing globally successful players – has produced the current low point in UK industrial performance. Ensuring competitiveness at the highest possible level requires an informed strategy, which in turn relies upon an integrated institutional system to support the dynamic processes required for achieving it. Attempting to pick winners without such a framework and without a shared vision is to a large extent the story of the UK financial sector and the City of London – which is what motivated David Cameron’s comment in the first place. Our contention is that there are clear examples within the UK – the strategy for elite sport being one – that illustrate how to go about building an institutional framework within which to develop the capabilities required for world class competitive success in industry. The time has come for the political rhetoric about industrial strategy to finally give way to active progress towards articulating a vision for the future of British industry and a strategy for achieving it.

Notes

[1] Cimoli, Dosi, Nelson and Stiglitz 2006:2.

[2] Griffiths and Zammuto 2005:823.

[3] BBC 2011.

[4] Rodrik 2008; 2011.

[5] Pack and Saggi 2006:267-8.

[6] Bora et al. 1999:1.

[7] Naude 2010; Aghion, et al 2012.

[8] Latsch 2008:25.

[9] Warwick 2013:16.

[10] Pack 2000:48; Amsden 1989; Chang 2003; Lin and Chang 2009.

[11] Lall 2004; Devarajan and Uy 2009; Budzinski and Schmidt 2006; Rodrik 2008.

[12] Rodrik 2008; Hausmann and Rodrik 2003; Rodrik 2004.

[13] Lall 2000, 2004; Latsch 2008; Nelson and Pack 1999.

[14] Chang 2003; Reinert 1995.

[15] Cimoli et al 2006:11.

[16] Chang 2010a.

[17] Naude 2010; Owen 2012; Peres and Primi 2009; Pryce 2012; Sharp 2001; Warwick 2013.

[18] Nelson 2008.

[19] BIS 2010; Wren 1996b; Greenway and Milner 1994; Vickers and Yarrrow 1988.

[20] ‘Stagflation’ describes the co-incidence of economic stagnation and inflation.

[21] Schleiffer and Vishny 1997.

[22] Lazonick and O’Sullivan 2000.

[23] Gibson 1993; Dunham-Jones 2000.

[24] Wren 2001.

[25] OECD 1992.

[26] CEC 1994.

[27] DTI 1994; 1995; 1996; 1998.

[28] Sharp 2001:2.

[29] Wren 2001; Andreoni 2011.

[30] Chang 2010b.

[31] World Bank 1993; Noland and Pack 2003.

[32] Perente and Prescott 2000; Baumol 2002.

[33] Nelson and Pack 1999; Nelson 2008.

[34] Rodrik 2002:6.

[35] Rodrik 2000:13.

[36] Rodrik, et al 2004:157.

[37] Nelson 2008.

[38] Lall 2004.

[39] Nelson 2008:13.

[40] Campos and Root 1996; Latsch 2008; Robinson 2009.

[41] Warwick 2013.

[42] Especially, development, evolutionary and institutional economics.

[43] Rodrik 2008:37-44.

[44] Rodrik 2012.

[45] Cimoli et al. 2006:19.

[46] Nelson 2008:12.

[47] Nelson 2008:18.

[48] Warwick 2013:21.

[49] Swann 2010.

[50] Harrison and Rodrigue-Clare 2010; Warwick 2013.

[51] Warwick 2013:48.

[52] Griffiths and Zammuto 2005:839.

[53] Rose 2007; quoted in Owen 2012:43.

[54] Rose 2007, Quoted in Owen 2012:43.

[55] *Financial Times* 2008.

[56] BERR 2009.

[57] Cable 2010.

[58] BIS and HM Treasury 2011.

[59] Osborne 2011.

[60] Cable 2011.

[61] Cable 2012.

[62] The failure to meet the target of five to seven medals in the 2012 Summer Olympic Games will have funding implications for British Swimming. A post-games review will determine how the sport can return to delivering medals in Rio 2016; and when the budget is set in December 2012, the Team's new priorities and a strategy for achieving them will be established.

[63] Houlihan and Lindsey 2013: 40.

[64] A 'quango' is a quasi-autonomous non-governmental organization.

[65] BBC 2001.

[66] Slater, M. 2012.

[67] Gibson 2012.

[68] UK Sport 2013.

[69] Ibid.

[70] A 'quango' is a quasi-autonomous non-governmental organization

[71] BBC 2012.

[72] Ibid.

[73] Quoted in Houlihan and Lindsey 2013: 39.

[74] Slater 2012.

[75] Ibid.

[76] Konzelmann, et al 2010.

[77] Department for Business, Innovation and Skills 2012.

[78] White 2012.

[79] BBC 2011.

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