

The effect of central contracts on the stability and performance of the England Test cricket team. [El efecto de contratos centrales sobre la estabilidad y el desempeño del equipo inglés de Test cricket].

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**The effect of central contracts on the stability and performance
of the England Test cricket team**
**El efecto de contratos centrales sobre la estabilidad y el desempeño
del equipo inglés de Test cricket**

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Abstract

In 1999 the England and Wales Cricket Board (ECB) decided to implement central contracts for elite player management to give them control over a group of players to represent the England national team in Test cricket. The purpose of this paper is to investigate the impact that this change in policy has had on the stability and performance of the England Test team, and discuss implications thereof. Using a sample of 13 seasons pre-central contracts (1987-1999) and 13 seasons post-central contracts (2000-2012), the results, from secondary analysis of England's Test match scorecards from both sample periods, allowed investigation of team performance and stability. To gain a greater understanding of how central contracts impacted on the England Test side, eight interviews were also organised with key stakeholders in English cricket. The results showed that both the stability and performance of the England Test side improved considerably in the sample period post-central contracts (2000-2012) with a much greater consistency of selection (fewer changes per match) alongside an improvement in England's on-field performance (better win ratio and points per match). The paper identifies two key challenges facing the current player management system in England from domestic and external sources.

Key words: contracts; stability; performance; cricket; England.

Resumen

En 1999 El Consejo de Cricket en Inglaterra y Gales (ECB - England and Wales Cricket Board) decidió implementar contratos centrales para la dirección de jugadores de élite, con el fin de darle control sobre el grupo de jugadores que representan el equipo nacional de Inglaterra de Test cricket. El objetivo de este artículo es investigar el impacto que este cambio ha tenido sobre la estabilidad y el desempeño del equipo inglés de Test cricket y considerar sus implicaciones. Tras emplear una muestra de 13 temporadas antes de la firma de los contratos centrales (entre 1987 y 1999) y otras 13 temporadas después de su implementación (entre 2000 y 2012), los resultados provenientes del análisis de los tanteadores indican estabilidad. Para comprender mejor el impacto de los contratos centrales sobre el equipo, realizamos asimismo 8 entrevistas con depositarios importantes en el mundo del Test cricket en Inglaterra. Los resultados mostraron que la estabilidad y el desempeño del equipo mejoraron considerablemente en el periodo de muestra después de la introducción de contratos centrales (2000-2012) con más regularidad en la selección de los jugadores (menos cambios en cada partido) además de una mejora en el desempeño del equipo durante los partidos (ganaron más partidos y anotaron más puntos en cada partido). El artículo, por tanto, identifica dos retos claves a los que se enfrenta la gestión actual de los jugadores en Inglaterra (de fuentes internas y externas).

Palabras clave: contratos centrales; estabilidad; rendimiento; cricket; Inglaterra.

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Introduction

Test matches are one of three formats of international cricket, the other two being One Day Internationals (ODI) and Twenty20 (T20). A cricket Test match involves two innings per team, lasting up to five days and can have four possible outcomes - win, loss, draw and tie, although a tie is unusual with only two such outcomes recorded in the history of 2,089 Test matches (to June 2013). There are currently ten national teams that have been granted Test status by the International Cricket Council (ICC), the world governing body of the sport - Australia, Bangladesh, England, India, New Zealand, Pakistan, South Africa, Sri Lanka, West Indies and Zimbabwe. Following defeat in a home Test series against New Zealand in 1999, England was officially the lowest ranked Test-playing nation in world cricket according to the ICC Test Rankings. One perceived explanation for this nadir was the demands placed by English domestic county cricket clubs on players contracted to them but also eligible to represent England at international level.

Subsequently, starting from the 2000 season, the England and Wales Cricket Board (ECB) implemented central contracts aimed at selecting an elite pool of players who could represent the national team and who were paid directly by the ECB, not their club. This development was described as 'a revolutionary change in policy' by former England Test captain Michael Atherton (see Atherton, 2005). In the broader context of world cricket, central contracts were the emerging model of international player management in the nineties. Australia was the first Test-match playing nation to introduce central contracts in 1994. Around that time the players in the England team played an average of 152 days cricket per calendar year, compared with an average of 100 days by their Australian counterparts (Independent, 1996). This example raised the issue around the importance of workload management in international sport, particularly as international players were required to play domestic county cricket immediately after international matches.

An effect of overplaying is that it is difficult for players to sustain a high level of performance over long periods of time. Players are more likely to have fluctuations in form due to less dedicated practice time, which can have an adverse impact on the overall team performance (John, Richardson and Selvey, 2004). Furthermore, as the majority of the other Test playing nations are in the southern hemisphere, with a different summer, England players could possibly play cricket in every month of the year with no extended break (Steen, 2009). This schedule was deemed to have adverse effects on performance, with one of the main implications being that players were not receiving the necessary amount of rest between matches, thus increasing the chance of injury (Batt, Gregory and Wallace, 2004). Central contracts aimed to solve this issue by reducing the number of matches each player plays, therefore reducing the risk of injury and burn out (James, 2012).

This paper has four aims. First, to examine the extent to which the introduction of central contracts for English Test match cricketers has led to improved team stability. Second, to investigate how England's 'on-pitch' performance in Test matches has changed after central contracts came into existence. Third, to debate whether any improvements in England's Test match performances, since, 2000, could be attributed to the way in which players are now being managed. Fourth, to explore the main challenges facing English cricket in light of the current player management system.

The role of employment contracts in professional sport

In all forms of employment, contracts are a legal requirement for employers for a variety of reasons including health and safety and tax (Gwyneth, 2011). Between the employee and the employer they are a necessity to keep an agreement on wages, holiday pay and all the other practicalities of employment (Leighton, 2009). However, contracts in modern day sport have become crucial in securing the services of players and keeping them tied to a specific organisation for a given length of time in order to create stability (Rosner and Shropshire, 2004). When there is a change of personnel within a team, this can potentially have a negative impact in terms of performance because the new members of the team need time to settle into the team environment and learn the existing procedures and practices (Harris, McMahan and Wright, 2012). When members of a team are able to work together for a sustained period of time they begin to develop knowledge of each other's strengths and weaknesses and how to work as a team more effectively. If a player has been given a long contract then this can remove uncertainty about his future and allow him to concentrate on improving his skills and performance (Krautmann and Oppenheimer, 2002). Alternatively, if a player's contract is nearing its expiration and a new contract has not been offered then this can place the athlete under pressure to perform (Bougheas and Downward, 2003). However, under this pressure the athlete may underperform, and thereby add unnecessary pressure and the likelihood that a new contract will not be forthcoming (Krautmann and Oppenheimer, 2002).

The incumbent scenario in English cricket

The ECB is governed by an executive committee, which includes the head coach and captain, with responsibility for awarding central contracts. The ECB's revenue is generated, according to the 2012 accounts section in its Annual Report, from "broadcasting revenue, ticket income, sponsorship, perimeter advertising, licensing income, promotions and sundry income" (ECB, 2012). Each year 12-13 cricketers are awarded central contracts, deemed the best pool of players available to represent England in its international fixtures for the following year (James, 2012). Although the salary associated with an England central contact is different for each player, the ECB accounts showed that almost £7m was spent in 2012 on 29 players, each worth between £150-500,000. Central contracts offer the ECB greater control over the players' commitments and reduce the amount of domestic cricket played (Greenfield and Osburn, 2010). This in turn allows the centrally contracted players to rest between matches (James, 2012). Controlling player contracts centrally, and therefore overseeing playing (and rest) schedules, is also intended to promote stability in team selection (Bal, Cooman, and Mol, 2013). This stability could be demonstrated in two distinct areas. First, prior to central contracts, it was easier not to select players who were not performing, as the ECB had no financial responsibility for the players. Second, and partially due to the financial responsibility taken on by the ECB, the selectors are more likely to select players who are centrally contracted to justify their decision to fund a particular player. An issue that affected players in previous eras was that if a player went through a poor run of form he was quickly discarded and this led to players feeling increased pressure, which can affect performance. The effect of employing the players rather than 'borrowing' them for international fixtures, as is the case in football, means that the team spends more time training together, working with the coaches and concentrating on playing international cricket (James, 2012).

Ancillary to central contracts are incremental contracts, which are also used by the ECB to manage England players. Incremental contracts are offered to players that are on the fringes of the senior squad. Players that have incremental contracts are usually graduates of the England development squad (James, 2012). The incremental contracts are awarded on a points system relating to appearances, with 5 points for a Test match appearance and 2 points for each ODI and each T20 appearance. If a player reaches 20 points, then an incremental contract is automatically awarded. Another area of policy that the ECB introduced into contracts was that players with central contracts would only play a maximum of 105 days of cricket per annum (ECB, 2010). In 2004 the National Cricket Performance Centre (NCPC) was opened in Loughborough (ECB, 2004) as a state of the art training facility for the England international teams. Similar to the introduction of central contracts, this represented a change in strategic management by the ECB (ECB, 2010). All of the senior England cricket coaches are based at the NCPC, with the aim to offer world class coaching and a world leading cricket facility under 'one roof' (ECB, 2005). The NCPC offers one location for all central and incremental contracted players to train and practice together under the supervision of the management team as they work towards a more stable team.

The revised system in England moves the responsibility for developing talented players away from a reliance on county clubs, to the ECB academies (Kitchin, 2008). King (2011) highlighted an example showing the difference between two players in different eras. One had the responsibility of managing his own training regime, the other had a rigorous training programme tailored to his needs, monitored by the management team; he operates on a reduced county programme, and trains more frequently with international colleagues in a professional environment. However, one negative aspect of the revised system, as noted by Kitchin (2008), is that the benefits are largely with the players and the ECB, as county clubs have little opportunity to use their 'star attractions' from the England team in league matches.

The rest of the paper is structured as follows. The methods employed to answer the research questions specified previously are first discussed. This is followed by the results of the investigation. The implications of the results are then acknowledged in light of recent developments in domestic and world cricket.

Methods

For the purpose of this research, two complimentary types of data were collected and analysed - quantitative and qualitative. The quantitative strand was concerned with statistics from Test matches contested by England over a 26-season period from 1987 to 2012, divided into two broad sample periods, January 1987 to December 1999 (n = 132 matches) and January 2000 to December 2012 (n = 166 matches), and eight more focussed sub-periods within this time frame. The 26 season period incorporates 13 full seasons of pre-central contract data (1987-1999) and an equivalent number of full seasons of post-central contract data (2000-2012). The statistics were generated using the ESPN Cricinfo 'Statsguru' package (ESPN Cricinfo, 2013) and the output was grouped and aggregated. This line of enquiry addressed the first two aims of the research, namely how team stability and performance had changed following the introduction of central contracts.

Team stability was measured in terms of the average number of changes per match in each sample period; whereas England's performance in Test matches was computed using its win ratio and average number of points per match achieved. The former is simply the number of Test matches won by England divided by the total number of matches that they played in a particular period of time; whereas the latter uses a scoring system of 2 points for a win, 1 for a draw / tie and 0 for a loss, to compute the total number of points achieved by England,

which is subsequently expressed in terms of the total matches that the team played in each time period.

The third stated aim of the research, the extent to which any improvements in performance were caused by the revised system of player management, was addressed using semi-structured interviews with eight stakeholders in English cricket. As the data alone does not attribute causality between stability and performance, the information gleaned from these qualitative interviews enabled this link to be investigated. In the interest of maintaining confidentiality, the identities of the individuals concerned have been kept anonymous. Current and former players (respondents 1-4), coaches (respondent 5 and 6) as well as county board and ECB committee members (respondents 7 and 8 respectively) were asked about their experiences, the structure, development, impact and future of central contracts.

Results and Discussion

In 1998, the year before central contracts were introduced, the ECB decided to increase the amount of international cricket played by England each summer. As an ECB representative (respondent 8) stated in their interview:

"Before 1998 usually there were five Test matches and five ODIs during a summer. Since 1998 the amount of international cricket has increased significantly. There are seven Test matches and ten ODI's played. It was clear to the counties that their best players would be needed by England for the majority of the summer and it was clear that the best way to manage this situation for both the players and the counties was to introduce central contracts. It is fundamentally important for all parties within English cricket to have a successful England team."

The ECB wanted to have control of the best players within England to produce the strongest possible England team, and thus improve performance. The results section includes both the quantitative analysis and the qualitative interviews. First, it is important to understand the nature of the quantitative sample. The following Table 1 splits the data into two time periods; comparing pre-central contracts (1987-1999) with post-central contracts (2000-2012). It also shows the data broken down into three / four year periods to show incremental change over time. Statistics show games played, number of team changes, wins, draws and losses, and total points (based on 2 for win, 1 for a draw and 0 for a loss). The number of team changes is an indicator of stability, i.e. the fewer changes to the team, the more stable. Although in cricket, as in most team sports, selection can be based on opposition, pitch condition, player injury and location, the introduction of central contracts was designed, although not in isolation, to decrease the culture of wholesale changes that appeared prominent in the 1980's and 1990's.

Table 1: Summary of incremental performance

	Matches Played	Total Changes	Wins	Draws	Losses	Points
1987-89	24*	87	1	13	10	15
1990-92	28**	70	8	12	8	28
1993-95	36	99	7	12	17	26
1996-99	42	112	10	14	18	34
1987-99	130	368	26	51	53	103
2000-02	39	86	14	10	15	38
2003-05	39	56	23	9	7	55
2006-08	37	52	13	11	13	37
2009-12	51	69	25	14	12	64
2000-12	166	263	75	44	47	194

*Not including the first game of this period. **Excludes one abandoned game in 1990.

Table 1 demonstrates, at a headline level, that the England Test team have played 36 matches more in the period post-central contracts compared with to the same time period pre-central contracts. During this second period with more fixtures, the England Test team used 19 fewer players in 36 more matches (82 players compared with 101). As Atherton (2005) suggests, before central contracts were introduced it was perceived that selection was inconsistent and certain players were not given ample opportunity to adjust to the demands of international cricket. One coach, also a former England international cricketer (respondent 2), remarked:

"Back when I used to play [before central contacts] there was [a lot of] changes in the England team and going from thinking that every Test match could possibly be your last to now having a much more secure place. Central contracts also give you time to prepare for matches, back in my international career after a Test match was scheduled to finish I would be expected back to my county within two days and when there was county matches ending a few days before a Test match I would still be expected to play."

The average points scored (in terms of match result) improved from an average of 0.79 points per game to 1.17 points per game based on a much improved win-ratio (0.45 compared with 0.20). One ex-international player, now working as a coach (respondent 5), summarised the different approaches to player selection and consistency as follows:

"Central contracts have made the selectors really focus on who they think should be in the England team because they are worth a significant amount of money, and the financial burden [of the contract] is on the ECB. This brings a consistency of selection. Pre-central contracts, there was a core of 4 or 5 regulars and then the rest of the team were 'in and out' players. This portrayed a negative feel, it wasn't that the morale was bad but the players who were in and out of the team were not made to feel a part [of the team]. It was very much a group of individuals rather than a team."

When analysing the incremental changes (Table 1), three of the four time periods post-central contracts saw an average points score greater than (or equal to) 1, compared to one period pre-contracts. Similarly, the minimum win ratio post-2000 (0.35 in 2006-08) was higher than

the maximum win ratio pre-2000 (0.29 in 1990-92). This initial data presents figures largely in relation to performance/results. One ex-international player (respondent 3) highlighted how their central contract helped them to become a better player:

"When you are given a central contract it is amazing how quickly you can improve as a player because of the resources at your disposal, you are well looked after medically as England hire the best doctors, physiotherapists, psychologists and all the elite medical staff to get and keep you fit. The other key infrastructure around you when you get a central contract is the coaching. You have some of the best coaches in the world to train you and help you improve your game."

As a measure of team stability, Figure 1 illustrates the average number of changes per match to England's playing XI in Test matches since 1987. In the 13 year period prior to the introduction of central contracts - 1987-1999 - there were on average between 2.50 (1990-92) and 3.63 (1987-89) changes to the England team per match. Following the introduction of central contracts in 2000, the corresponding figure ranges from a low of 1.35 (2009-12) to a high of 2.21 (2000-02). On the basis of this data, it could be argued that the turnover of English cricketers has reduced over the time period under scrutiny, and on a consistent basis between 2000 and 2012, which coincides with cricketers being centrally contracted to represent England in Test matches.

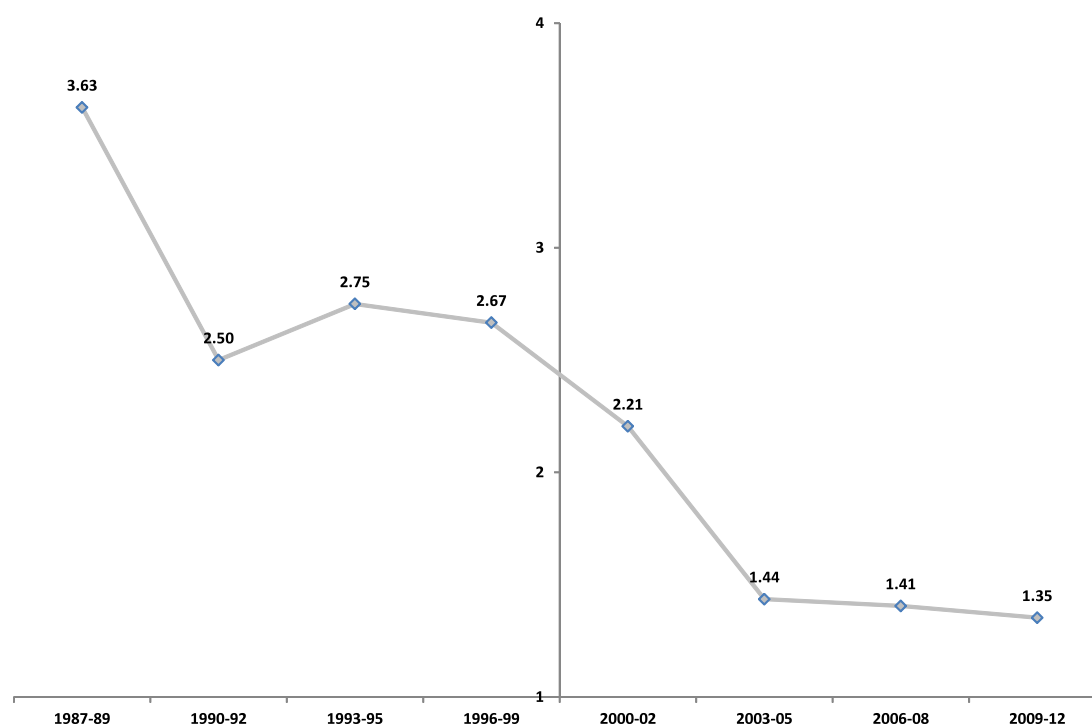


Figure 1: Average number of changes per match to England's playing XI 1987-2012

Statistically, there is a very strong negative correlation ($r = -0.93$, $n = 8$, $p < 0.001$) between team stability (average changes) and time (1987-89 = 1; 1990-92 = 2 and so on). The value of r for the four data points pre 2000 is -0.67 ($p = 0.33$) but the strength of the relationship increases to -0.82 ($p = 0.18$) for the four data points from 2000 onwards, which further

supports the interpretation of there being an improvement in team stability that could be attributed to central contracts.

Figure 2 demonstrates the success of the England team in Test matches between 1987 and 2012, measured using two standardised indicators - win ratio and average points per match. Both these indicators provide strong evidence to suggest that England's performance has improved generally since 2000, with its performance peaking in the 2003-05 period. Pre 2000, the average points per match and win ratio were between 0.63 and 1.00 and between 0.04 and 0.29 respectively. Post 2000, the average points per match was between 0.97 and 1.41 whereas the win ratio had increased to between 0.35 and 0.59. Both win ratio and average points per match are positively correlated with time ($0.74 < r < 0.81$, $n = 8$, $p < 0.05$).

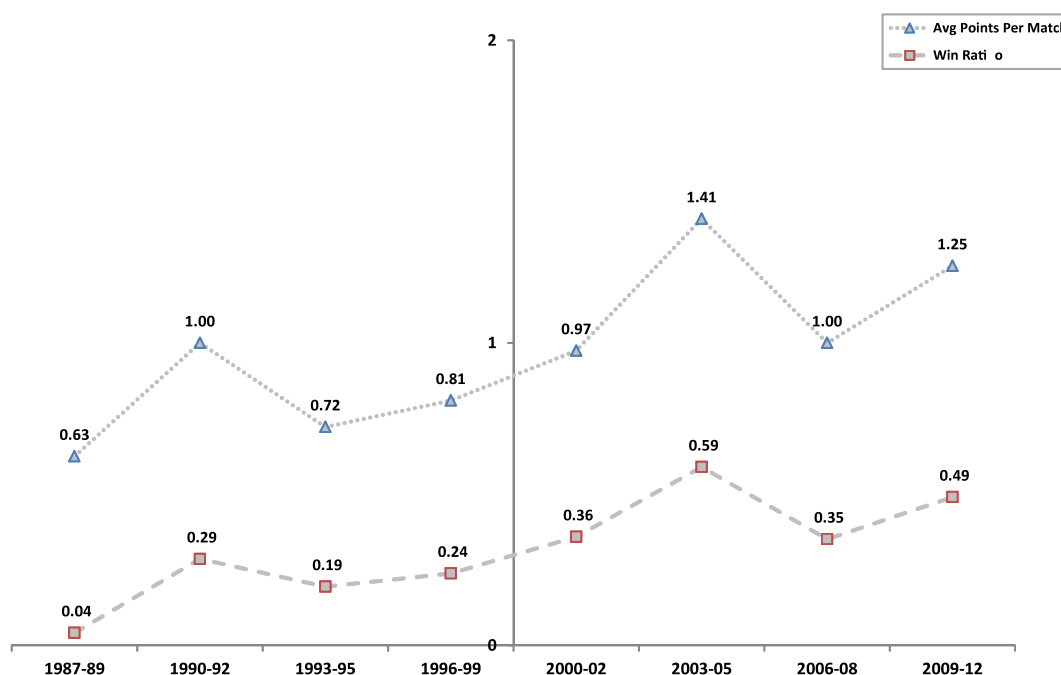


Figure 2: England's performance in Test matches 1987-2012

Based on the above it is clear that, while there have been fewer changes to the England Test team setup in more recent years leading to greater stability in personnel, England's Test match performance is on an upward trend. It is no surprise then that there are also very strong correlations between team stability and win ratio ($r = -0.92$, $n = 8$, $p < 0.01$) and between team stability and average points per match ($r = -0.87$, $n = 8$, $p < 0.01$). This indicates the possibility of a cause and effect relationship between these variables, albeit this assertion cannot be proven conclusively based on the quantitative data alone. The headline figures suggest that the introduction of the new system has had a positive impact on performance. In terms of attributing causality, the qualitative interviews add additional weight to the argument, albeit a small sub-sample.

A strong theme that emerged from stakeholder interviews was that if, in the old system, a player had performed poorly in one or two Test matches then he would not be selected. This lack of security was experienced by a former England international who commented "there was no feeling of security - (although) there has to be a balance of having security and also knowing you have to perform well". Another former international cricketer stated that the security of a central contract was a positive development for the players. This feeling of

security also coincides with a significant culture change in the management approach towards the players and creating a team atmosphere around the idea of 'Team England'. As a county head coach suggested, in the new structure "the players now feel they are international players, not county (club) players who represent their country".

Future challenges

There are at least two potential challenges to the current player management system in England. The first challenge is domestic in nature and relates to the impact that central contract management has on English county clubs. The second potential challenge concerns the formation and attraction of T20 leagues around the world, most notably the Indian Premier League (IPL). Each of these issues are discussed in turn below.

One obvious impact that the introduction of central contracts has had on the domestic counties in England is the (un)availability of their international players, as contracted players are rarely available to play county cricket. As a current county coach (respondent 6) stated:

"In a way [central contracts] helps and in a way it doesn't help. It's that not knowing how much you are going to have them [the players] available, you have to plan for the worst-case scenario of not having any of them at all."

However, because the ECB pay the centrally contracted players' wages, this releases financial burden of that player from the counties. It also means that when a centrally contracted player is released to play for his county, the county is using a player they do not have to pay for. An ECB representative gave the example of one player, who in his first year being on a central contract actually played a considerable amount of cricket for his county and they did not have to pay him anything. Furthermore, if a county has one or two players involved with the England team, this can create a 'feel good' factor around the club. A county head coach (respondent 5) explained:

"It represents very good publicity for the county if you have one or two of your players directly involved in the England team and this feeling can be filtered down to their county teammates".

Despite this view, the economic environment for counties at the moment is challenging as they aim to ensure they have robust business strategies in place to reduce any future financial threat. In terms of central contracts in the future, the critical thing that counties do is provide the next generation of cricketers. The ECB representative (respondent 8) suggested the current playing schedule for county players was not conducive to such development.

"I do worry for county cricket in terms of the amount they play, prepare and rest - I would like more of a balance and actually see less cricket both internationally, and domestically. I think more preparation time would result in a better quality of cricket".

Releasing the financial burden of the players' salaries is one of the major positives of central contracts for the counties. However, a negative for counties, as revealed by the interviews, is the scenario when a centrally contracted player is not offered a contract for the following year by the ECB and returns to his county. This can put significant financial pressure on the counties salary cap. A county head coach explained "if a player comes off a central contact in September [when they are issued] the county then has to start paying their salary and this comes in the middle of the salary cap window [April-March]". This scenario makes it difficult for a county to plan financially because it will not know how many of its centrally contracted players it may need to pay from September to the following March. Also the

counties want to assemble a squad that will be competitive and still comply with the salary cap.

A further issue that was cited is the situation when a player is picked for the England side who does not have a central contract; in this case the county still has to pay the players' wages and pay the wages of a replacement player. A current county head coach (respondent 6) explained:

"When players who are not centrally contracted are picked to play for England the counties receive Performance Related Fee Payments (PRFP). However, because the players are England internationals their contracts are high and the PRFP does not cover their salaries and the counties are out of pocket".

Consequently counties may lose money on releasing their players for England duty which makes it difficult for them to work within their budget and abide by the salary cap. As a current county head coach (respondent 6) stated:

"The counties are funded by the ECB and obviously the ECB need the counties to produce the players so we need them and they need us. However, sometimes in county cricket we feel we are the poor relations at times".

As the counties rely on funding from the ECB to survive financially, and the ECB rely on the counties producing young players through their academy systems, the relationship between the counties and the ECB needs to be well managed through constructive dialogue.

The second challenge, the introduction of T20 cricket leagues and in particular the Indian Premier League (IPL), has potential connotations for Test match cricket globally, and the stability of the England Test team. The IPL is an annual Twenty20 league based in India from the start of April until the middle of May. It IPL recruits players via a draft system and is financially lucrative for chosen players. However, the IPL and the beginning of the English summer Test match programme coincide, and centrally contracted players are under the discretion of the ECB around the opportunity to play, due to conflicting England commitments. However, as an ECB representative (respondent 8) stated:

"To date we have managed to come up with a middle ground so we release the players for a certain amount of time [3 weeks] to play in the IPL. The players want to play in the IPL for as long as possible because the longer they play the more money they get".

As Rumford (2011) suggests, there is a growing trend for international cricketers to put their T20 careers before their Test match careers, and there is a growth of T20 leagues emerging around the world. Instances have arisen whereby players can market themselves as almost 'freelance' T20 cricketers and play in the different leagues around the world instead of playing Test match cricket. An example of this is Kieron Pollard of the West Indies who rejected a central contract from the West Indian national cricket board to play T20 league cricket (Rumford, 2011), albeit the latter was of lower financial value than an ECB central contract. Although there is not an immediate threat of players rejecting central contracts, it is an area that the ECB need to manage carefully, particularly when looking to ensure a stable Test match side and the impact this has on performance, as illustrated above. As alluded to previously, the value of an ECB central contract is estimated to be worth anywhere between £150-500,000. Comparisons with the IPL show that the best paid player in the league earned \$3 million (around £1.9m) in 2013, although only four England international players feature in the top 100 in terms of IPL salary, with their earnings ranging between \$200,000 and \$1 million (around £130-640,000).

Conclusions

The findings presented suggest that central contracts have had a positive impact on the stability of the England Test cricket team. As the stability of team selection has improved, the main performance indicators (win ratio and points per match) have improved considerably, as evidenced in the quantitative findings. The national coaches now have regular access to the players, a marked improvement on the situation prior to the introduction of central contracts. This has led to more time for coaching, training and managing workloads with periods of rest and recuperation.

Although the impact of central contracts has raised a small number of issues with the domestic counties in England and Wales, the main reason they were introduced was to directly improve the performance of the English Test team. This has been achieved through a blend of better preparation, more focussed itineraries for practice and playing, and increased stability in team selection, with England's results improving since the system of central contracts was implemented.

References

- Atherton, M. (2005). Triumph of the Poms; England expects to win the Ashes what's going on? *The Spectator*, 299 (9222), 20.
- Bal, M.; Cooman, R., & Mol, S. (2013). Dynamics of psychological contracts with work engagement and turnover intention: The influence of organizational tenure. *European Journal of Work and Organizational Psychology*, 22, (1), 107-122.
- Batt, M.; Gregory, P., & Wallace, W (2004). Is risk of fast bowling injury in cricketers greater in those who bowl most? A cohort of young English Fast Bowlers. *British Journal of Sports Medicine*, (20), 125-128.
- Bougheas, S. & Downward, P. (2003). The Economics of Professional Sports Leagues: Some insights on the reform of Transfer Markets. *Journal of Sport Economics*, 4, (2), 87-107.
- ECB (2004). National Cricket Performance Centre. Available online at: <http://www.ecb.co.uk/ecb/national-cricket-performance-centre-loughborough/> (accessed 25 April 2013).
- ECB (2005). Building Partnerships Available online at: <http://static.ecb.co.uk/files/building-partnerships-cricket-strategic-plan-2005-2009-602.pdf> (accessed 25 April 2013).
- ECB (2010). Grounds to Play. Available online at: <http://static.ecb.co.uk/files/grounds-to-play-11040.pdf> (accessed 8 January 2013).
- ECB (2012) Annual Report Including Financial Statements Available online at: <http://static.ecb.co.uk/files/1282-ecb-2012-annual-report-digital-12445.pdf> (accessed 15 August 2013).
- ESPN Cricinfo (2013). Stats Guru. Available online at: <http://www.espnricinfo.com/ci/content/current/stats/index.html> (accessed 1 April 2013).
- Greenfield, S. & Osburn, G. (2010). Regulating sport: finding a role for the law? *Sport in Society: Cultures, Commerce, Media, Politics*, 13, (2) 367-379.
- Gwyneth, P. (2011). *Employment Law*. 8th ed., London: Sweet and Maxwell.

Harris, C.; McMahan, G., & Wright P. (2012). The impact of human capital and overlapping tenure on unit performance. *Personnel Review*, 41, (4), 408-427.

Independent (1996). [online]. Acfield advocates rest for top players. Available online at: <http://www.independent.co.uk/sport/acfield-advocates-rest-for-top-players-1307684.html> (accessed 28 February 2013).

James, S. (2012). *The Plan: How Fletcher and Flower have transformed English Cricket*, Banham press.

John, E.; Richardson, D., & Selvey, M (2004). Excess fare: some players have had enough, others can't get enough. Emma John investigates the hot issue of burn out. *Wisden Cricketer*, 1, (4), 46-50.

King, A. (2011). The Reverse Sweep. *Sport in society*, 14, (10) 1295-1406.

Kitchin, P. (2008). Twenty-20 and English domestic cricket. In Chadwick, S and Arthur, D. *International Cases in the Business of Sport*, pp. 101-13. London: Routledge.

Krautmann, A. & Oppenheimer, M. (2002). Contract Length and the Return to Performance in Major League Baseball. *Journal of Sports Economics*, 3 (1), 6-17.

Leighton, P. (2009). Employment law: contracts, rights and responsibilities. *Journal for nurses in general practice*, 38, (5), 37.

Rosner, S. & Shropshire, K. (2011). *The Business of Sports*. 2nd Ed., Jones and Bartlett learning.

Rumford, C. (2011). Twenty20, global disembedding, and the rise of the 'portfolio player'. *Sport in Society: Cultures, Commerce, Media, Politics*, 14, (10), 1358-1363.

Steen, R. (2012). Burning down the house. *Special Issue: Cricket: International and Interdisciplinary Approaches*, 12, (4-5), 670-680.