

Secondary Prizes and Match Uncertainty in Rugby Union Tournaments: The Impact of Bonus Points

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Our Paper

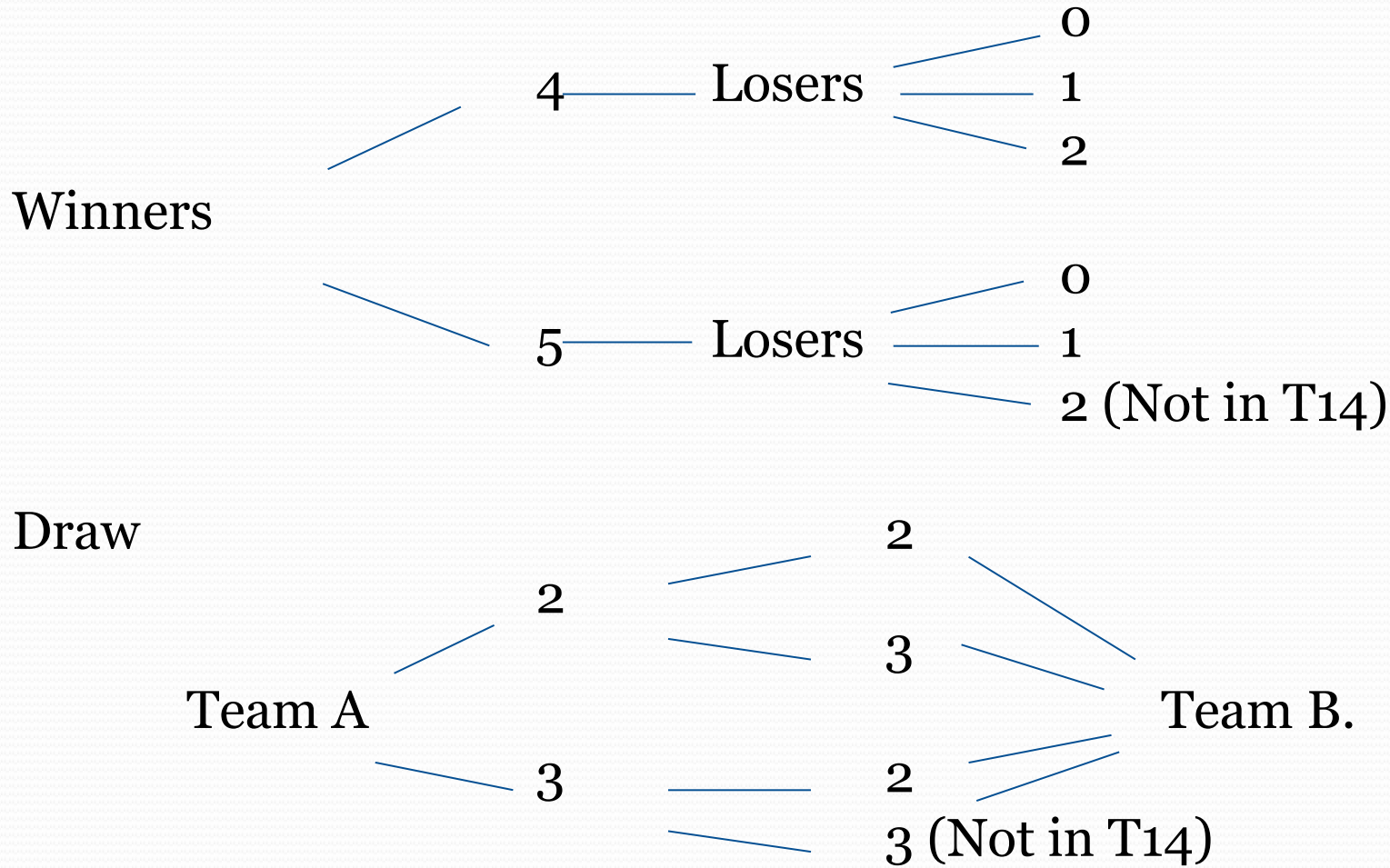
- Exploits an unusual feature of many rugby tournaments:
- Awarding of bonus league points for outcomes besides winning or drawing matches:
 - (i) For scoring a certain number of tries; and
 - (ii) For losing narrowly.
- Such secondary prizes seek to encourage exciting play and more balanced matches.
- Losing bonus seek to encourage continued effort by teams even when winning no longer possible.



Bonus League Points in Rugby Tournaments

- Traditionally 2 points for win, 1 point for draw.
- Two common bonus point systems.
- 4 points for a win, 2 points for a draw.
 - (a) Bonus point for scoring 4 tries and for losing by 7 points or less - English Premiership, Pro-14, Six Nations Championship and Pool Stages in European Cup and World Cup.
 - (b) Bonus point for scoring 3 tries more than opponents and for losing by 7 points or less (5 or less since 2015/16) - French Top 14.
 - Rugby Championship and Super Rugby switched from (a) to (b) in

Bonus Points – Multiple Points Outcomes.



Team Bonuses in Mainstream Economic Literature.

- Alchian & Demsetz (1972) - Impact of bonuses on collective performance of fixed teams of workers in a state of competition.
- Lack of empirical evidence - Predominantly centres on elements of individual behaviour within team environment, e.g. free-riding (Kim & Vikander, 2013).
- Friebel et al., (2017) important recent exception - showed random assignment of team bonuses within a retail chain had a significantly positive sizeable effect on both sales and operating profit.
- Team-based incentives more potent than individual incentives (Hamilton, Nickerson & Owan, 2003).

Previous Studies of Bonus Points in Rugby.

- Winchester (2008)
- Winchester (2011)
- Lenten & Winchester (2015)
- Butler et al. (2017)
- Multiple studies on impact of 3 points for a win in soccer.

Winchester 2011

- BP in Six Nations Championship.
- Bonus points for losing narrowly would “improve the accuracy of league standing”.
- Measure of team strength.
- BP introduced in 2016
- Rejected Winchester findings - Variant on ERC system
 - 1 BP for 4 tries
 - 1 BP for losing by 7 or less points
 - 3 BP for winning all 5 matches (Grand Slam) – to ensure team that won all its matches would win championship.

Lenten & Winchester 2015

- Try bonus only.
- Scoring patterns in final 8 minutes of Super Rugby matches.
- Teams that had scored 3 tries likely to score 4th in final 8 minutes provided risk of losing match low.
- Difficult to disentangle losing bonus incentive from primary-objective of winning – potentially fruitful avenue for future research.
- Opposition not deducted a point when try bonus earned - possible to separate extra incentive to score marginal try from baseline incentive for opposition to prevent it - but relatively worse off if opponent gets try bonus.
- Anecdotal evidence.

Butler et al. (2017)

- Try Bonus only.
- ERC pre and post 2003/04.
- Increased frequency of teams scoring 4 tries.
- Reduced frequency of teams scoring > 4 tries.
- Unintended result BP = Fewer Tries Per Game.
- CB increased.



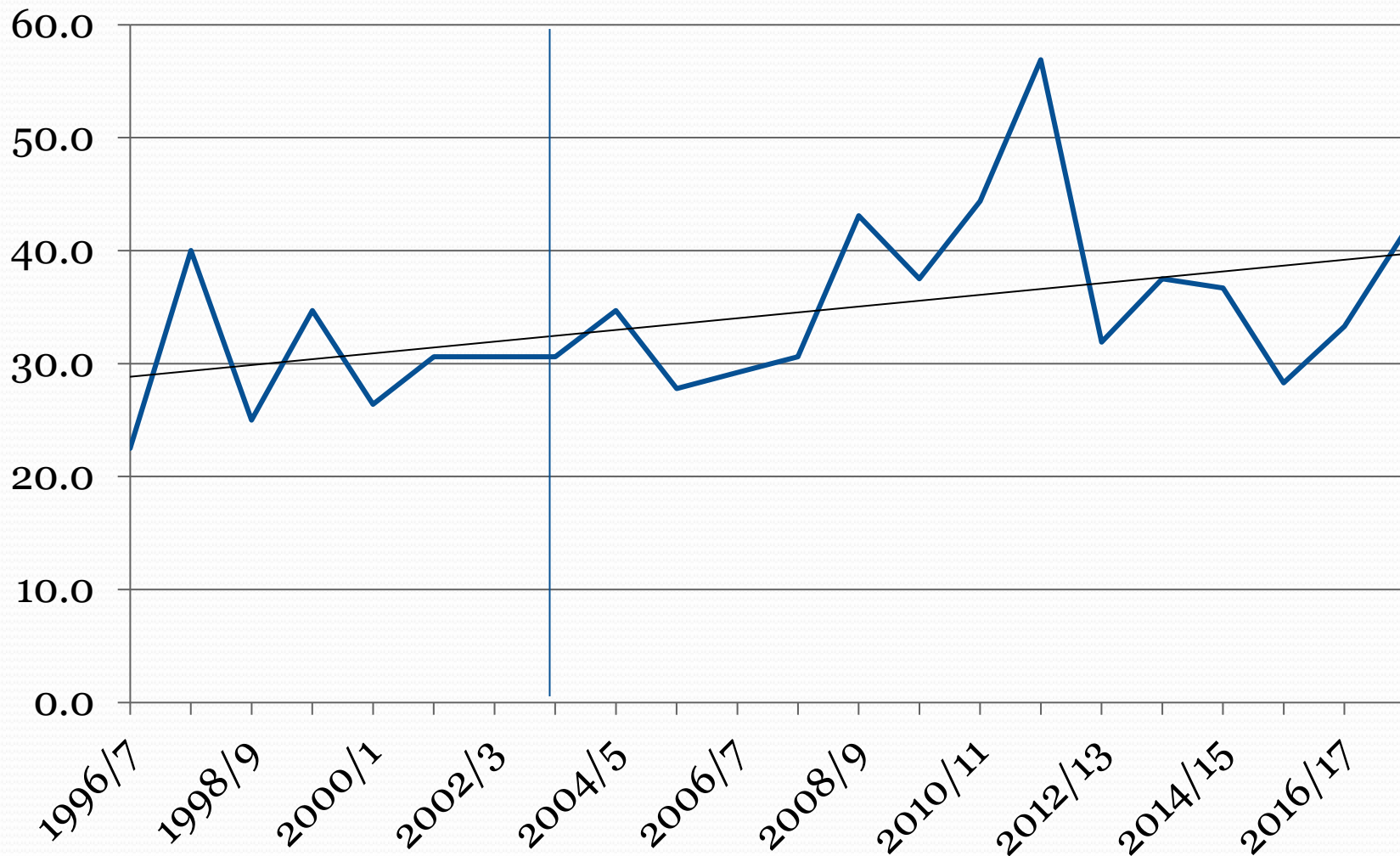
European Rugby Cup (ERC)

- Launched 1995/96 – 12 teams (4 pools of 3).
- Several changes in format in early years.
- 1999/00 24 teams – 6 pools of 4 - Pool winners + 2 best runners-up qualify for knockout phase.
- 2014/15 ERC replaced by European Rugby Champions Cup (ERCC) – 5 pools of 4 – Pool winners + 3 best runners-up qualify for knockout phase.
- BPs important due to limited number of matches & qualification system.

ERC Scoring Before and After Bonus Points

	Pre BP	Post BP	Difference
Points Home	29.91	24.36	-5.55
Points Away	20.77	18.61	-2.16
Average Margin	17.25	15.00	-2.26
Median Margin	13.00	11.00	-2.00
Try Home	3.21	2.62	-0.60
Penalty Home	3.03	2.37	-0.66
Drop Goal Home	0.20	0.13	-0.07
Try Away	2.11	1.89	-0.22
Penalty Away	2.29	1.99	-0.29
Drop Goal Away	0.15	0.14	-0.01

% ERC Matches Winning Margin ≤ 7 Points





Thank you for your attention.
Comments & Questions Welcome.