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Remuneration in Cricket

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Chapter 6

Remuneration in Cricket

6.1 Introduction

The unequal treatment of women relative to men is an entrenched (and unsavoury) feature of the social and economic life of many countries. Firstly, there is the issue of pay. The International Labour Organisation (ILO) estimated that, in a global context, women's earnings in 2015 were 77% of those of men and that, at prevailing rates of decline, it would take 70 years for the gender gap to narrow appreciably (ILO, 2015). The Pew Research Center showed that, in 2020, according to the US Census Bureau's most recent analysis, full-time, year-round working women earned 82% of what their male counterparts earned (Barroso and Brown, 2021). Much of this gap was because women were overrepresented in low-paid occupations (a universal characteristic of labour markets) and the fact that they have increased their presence in higher-paid jobs in managerial and professional positions has not been enough to offset this. Even within high-paid occupations, however, a large proportion of women reported discrimination in respect of remuneration: one in four employed women in the USA said they earned less than a man who was doing the same job while just 5% of men said they earned less than a woman doing the same job (Barroso and Brown, 2021).

Secondly, there is the issue of family. The term 'motherhood pay penalty' refers to the pay gap between working mothers and similar women without dependent children. For example, by the age of 42, mothers in Britain who were in full-time work were earning 11% less than women without children who were working full-time (TUC, 2016). This penalty is neither new, nor is it peculiar to the UK. It has been noted and measured before and it has been found to exist in many countries (Rubery and Grimshaw, 2015).

A motherhood pay penalty may exist because working women with children usually have interrupted careers and employers might regard such interruptions as periods when a person's human capital stagnates (Becker, 1991). In addition, employers might discriminate against women who interrupt their careers for two reasons: first, because they reason that the first child-related interruption would be followed by other future interruptions; and second, because they believe that women who return to work after a child-related break would be more likely to take time off work to look after sick

children and to deal with domestic emergencies (Becker, 1985). To these reasons could be added a third: women returning to work after motherhood might not be able to return to their pre-break job position but, instead, might have to accept something lower. The overall conclusion was that while employment continuity was crucial for shoring up women's earnings, it was almost impossible to achieve for working women wishing to start a family (Arun *et al.*, 2004).

6.2 The Gender Earnings Gap in Sport

Against the above background of a gender earnings gap which vitiates labour markets in general, this section examines the existence of such a gap in a selection of sports before the later part of the chapter turns to differences in pay between men and women cricketers. There is a crucial distinction in sport between prize money and pay. In tennis, for example, where players are essentially self-employed — having to cover their own transportation, equipment, coaching, and accommodation costs — obtaining a share of the prize money from playing in tournaments is their only source of income from *playing* tennis.¹ In this respect, Grand Slam tournaments, by awarding an equal amount of money to the men's and women's game — starting with the US Open in 1973 — seek to eliminate gender disparities in tennis earnings.

In contrast to tennis, cricketers are employees of their national cricket associations and/or of cricket franchises. Consequently, their income derives primarily from the pay scales set by their employers and only secondarily upon their share of the prize money associated with tournaments. So, for example, the announcement by the England and Wales Cricket Board (ECB), that the men's and women's competitions in the Hundred tournament taking place over July–August 2021 would receive the same prize money is a step towards establishing gender parity; but it cannot disguise the fact that the ECB has also set out glaringly inequitable pay scales for men and women playing in the Hundred.² This distinction between prize money and pay should be borne in mind in evaluating, for example, the

¹ Other sources of income might be endorsements of products and/or coaching.

² The ECB announced that a £600,000 total prize pool will be split evenly between the men's and women's competitions in the Hundred and both will be worth £300,000 in prize money. The winning men's and women's teams would earn £150,000 each, the runners-up £75,000, and there would be an equal division for the various player awards. <https://www.theguardian.com/sport/2020/mar/04/mens-and-womens-competitions-in-the-hundred-to-have-equal-prize-money> (accessed 12 August 2021).

European Parliament's finding that, in 2019, 83% of sports awarded equal prize money to men and women (Katsarova, 2019).

The three sports discussed briefly below highlight some of the aspects of gender disparity in sport. In ultramarathon running, equal prize money for men and women has attracted women to the sport. In turn, more women competing has meant that average performance has risen and competitiveness among women has increased. Professional golf — in which, as in tennis, players are effectively individual contractors — displays some of the most glaring inequality in rewards to men and women. Attempts to justify this include the 'facts' that men 'work harder' and possess 'better skills' than women. These arguments echo those that used to be made in tennis; the difference is that tennis had powerful advocates for gender equality who were able to force change.

Ultramarathon Running

Ultramarathons are defined as races in which the distance covered is greater than the 42.2 km of traditional marathons, the two most popular distances being 50 km and 100 km. Frick (2011) offered two main explanations for differences in the competitiveness of male and female ultramarathon runners, with competitiveness defined as the dispersion of times between the competitors. The first explanation covered psychological and biological aspects: the evolutionary psychology explanation focused on gender differences in the desire to compete (allied to related attributes like dominance, egocentrism, independence, and risk-taking), while the biological explanation emphasised male–female differences in physiology (skeletal characteristics, variations in body fat and the cardiovascular system, susceptibility to injuries etc.). The second covered socio-economic factors: the sociological explanation emphasised differences in the socio-cultural environment in which boys and girls were raised, in the context of which boys enjoyed a freedom that was denied to girls; the economic explanation gave more weight to the better economic incentives offered to men, relative to women, to excel at sport.

Using longitudinal data, Frick (2011) found that the gender gap in competitiveness in ultramarathon running had narrowed over the years but had declined more sharply for 100 km than for 50 km races. This was attributed to the fact that 100 km races were more prestigious and more

lucrative, and offered higher prize money than the less prestigious 50 km races.³ The competitiveness of women ultramarathon runners, especially in the longer 100 km event, has increased to an extent that it is likely to equal, if not overtake, that of men as increased rewards attract more women who, moreover, are motivated to train as hard as men. Not only that, but globalisation has meant that the socio-economic environment in which boys and girls are raised has become more homogeneous across different parts of the world and so the increase in the number of women competitors has also been accompanied by a greater diversity in their backgrounds. Consequently, not only has the average performance of female competitors in ultramarathons improved but it has also been accompanied by a decline in the dispersion of performances between competitors.⁴

Golf

According to a BBC study on prize money in sport, golf was one of three sports — football and basketball being the other two — in which there was yawning gap between the rewards offered to men and women competitors.⁵ The first prize in all three of golf's traditional mixed Majors (the British Open, the US Open and the PGA Championship) were more than US\$1 million higher for men than for women; although female golfers were among the highest earners in elite sport, their earnings fell well short of those of their male counterparts. The 2021 US Open offered US\$2.25 million and US\$1 million, respectively, to the winners of the men's and women's competitions; the British Open offered US\$1.935 million to the men's winner and US\$1 million to the women's winner; the PGA offered US\$1.82 million and US\$645,000, respectively, to the men's and women's winners. Not only that, but the gender gap in the US Open has increased over time from US\$900,000 in 2014 to US\$1.25m in 2021 (Heath, 2021).

In defending professional golf's gender inequality in prize money, Shmanske (2000) reprised an argument familiar to those who used to rationalise similar inequalities in tennis: male professional golfers 'deserved' higher rewards than women because they 'worked' harder and were 'better'

³ The 100 km race is an official International Association of Athletics Federation (IAAF) competition with its own World Cup event resulting in medal wins and (lucrative) endorsement contracts for the top athletes.

⁴ In a study of professional marathon runners, Frick (1998) found that women were more responsive than men to an increase in prize money as well as to changes in its distribution.

⁵ See 'Prize money in sport': <https://www.bbc.co.uk/sport/56266693> (accessed 14 August 2021).

players. Men played more rounds of golf, over longer courses, in front of larger audiences than women and, in addition, had better golfing skills.⁶ The five main skills used in golf are: driving distance, driving accuracy, accuracy with approach shots, sand bunker shots, and putting. Shamske's data (ibid.) showed that men were better than women in driving distance, putting, and sand saves but there was no gender difference in driving accuracy and 'greens in regulation' (that is, reaching the green from the tee in the number of strokes appropriate for the hole).⁷ Men earned more than four times as much per tournament on average but overall played better golf, averaging more than two fewer strokes per round. Shamske's conclusion (ibid.) was that women were not underpaid relative to men in professional golf, *once adjustments had been made for differences in skills*.

Tennis

The arguments made to justify gender-based inequality in prize money in golf — namely, that men 'work harder' and have 'superior skills' — echo arguments that used to be made in tennis to justify similar disparities in the prize money awarded to men's and women's tournaments. In terms of 'work', it was pointed out that in the four Grand Slam tournaments — the Australian Open, the French Open, Wimbledon, and the US Open — men played matches that were best of five sets while women's matches were best of three. This, of course, ignored the fact that in all non-Grand Slam tournaments both men and women played best of three sets. In terms of skills, John McEnroe — three times Wimbledon champion and four times winner of the US Open, and now a ubiquitous tennis commentator — (in)famously remarked that while Serena Williams was undoubtedly the best female tennis player ever, 'if she played the men's circuit, she'd be like 700 in the world' (Garcia-Navarro, 2017).

The flaw in this argument is that 'work' for a professional tennis player — as indeed, for professional sportspersons in general — does not consist solely of time spent playing competitively: behind the time spent on the tennis court (or on the golf course) lie countless hours of training and

⁶ Shmanske (2000) reported that the average yardage for men and women professional golfers was, respectively, 6,998 and 6,282. Men played a total of 45 tournaments of which 41 involved four rounds of golf; women, on the other hand, played 36 tournaments of which 23 involved four rounds.

⁷ So, for a par-four hole, 'in regulation' means reaching the hole in two strokes — one for the drive and the next for the approach shot.

practice and there is no suggestion that, after taking these hours into account, men work harder than women. Secondly, the prize money is awarded to the winner of the tournament — the person who beats all other opponents — and, in this respect, the achievements of the men’s and women’s champions are on par with each other: both triumphed over other competitors and both deserve equal rewards for this achievement.

Those who seek to justify gender disparity in pay with the argument that men play a “superior”, in the sense of hitting the ball harder, game to women, miss the point that people go to matches to witness not just raw power but because they are also attracted by the uncertainty surrounding the outcome of the contest. In that sense, the women’s game in tennis, with fluctuating fortunes among the top 10 players, is arguably far more interesting than an endless diet of Nadal winning on the clay courts of Roland Garros.

Most importantly, tennis has succeeded in establishing gender parity in prize money in Grand Slam tournaments, while golf has failed to do so for its Majors, because, unlike golf, it has had powerful advocates for equal pay. Of these, Billie Jean King took the lead when she formed the Women’s Tennis Association in 1973 and threatened to boycott the US Open in that year unless men and women were paid the same prize money: the US Open of 1973 capitulated and the principle of equal prize money gained a foothold (Chang, 2021). Another decade passed before the Australian Open established parity in prize money in 1984 (though this was suspended between 1996 and 2000) and it took another two decades before the French Open and Wimbledon followed suit in 2006 and 2007, respectively.

Even though tennis is hailed as a leader of gender equality in major sport, there is no room for complacency. The fact remains that, outside the Grand Slam tournaments, there is considerable gender disparity in remuneration. In 2016, female tennis players earned 80 cents for every dollar earned by men so that the median pay gap between a woman in the top 100 and her opposite number on the men’s tour was US\$120,624 (Rothenberg, 2016), and according to a 2014 International Tennis Federation Study, only 336 men and 253 women earned enough from tennis to meet their tennis-related expenses (Bialik, 2014).

6.3 The Gender Earnings Gap in Cricket

The difference between cricket and golf or tennis is that professional cricketers are not self-employed but are employees of their national cricket association or cricketing franchises and, as such, are either dependent on the pay scales established by their employers — the Australian Big Bash League (BBL) and Women’s Big Bash League (WBBL) and England’s The Hundred — or on the prices they are able to command from franchise owners at auction — the Indian Premier League (IPL).

The administrator for the BBL and WBBL is Cricket Australia (CA), the governing body for cricket in Australia, whose publicly stated aim is to ‘achieve gender equity across Australian cricket’ and to ‘accelerate opportunities for women in all areas and levels of our game’ (Cricket Australia, 2017). The biggest step towards gender equity in Australian cricket was taken in 2017 with a Memorandum of Understanding (MoU) between the CA and players, covering the period 2017–2021/22, in which, for the first time, female players were brought into the ambit of CA’s revenue-sharing model. Because of this, in the period 2017–2021/22 CA ploughed AUS\$55 million (US\$39.2 million) into offering professional contracts to women cricketers, up from AUS\$7.5 million (US\$5.3 million) prior to the MoU.

There are three types of contracts offered by CA. The first is a central contract to play for the national team. Over the 2021–22 season, this would be worth a minimum retainer of AUS\$313,004 (US\$223,000) for men and AUS\$87,609 (US\$62,000) for women. The second is a contract to play for a state team; over 2021–22, this amounted to a minimum retainer of AUS\$74,557 (US\$53,000) for men and AUS\$27,287 (US\$19,500) for women. Lastly, there are the BBL and WBBL contracts, with a minimum retainer of AUS\$40,604 (US\$29,000) for men and AUS\$11,584 (US\$8,300) for women.⁸ All these retainers are supplemented by match fees, performance payments, prize money, and other benefits.⁹ It is only when women cricketers have at least two of the three available contracts that cricket becomes a viable profession for them. Of a total of 141 professional female cricketers in Australia in 2017, the 13 Australian national players also had WBBL contracts; 77 had state and

⁸ The figures quoted are from Jolly (2021).

⁹ The gender differences are due to a ‘Base Rate of Pay’ model used by CA. This considers hours worked and then applies premiums for Australia players and the commerciality of each competition (Jolly, 2021).

WBBL contracts; while 21 and 30, had respectively, only a state or a WBBL contract (Global Sports Salaries Survey, 2017).

The England and Wales Cricket Board offers its male cricketers three types of contracts depending on the type of cricket they play: central Test contracts for players who are regularly selected for Test Matches (red-ball cricket); white-ball contracts for players who are regularly selected to represent England in Limited Overs cricket; and increment contracts for players that the ECB judges to have the potential to develop as good players. Contracts are for a single year with renewal, based on a review, at the end of the year.¹⁰ Eleven players were given central Test contracts for 2021–22 — and, of these, four were also awarded white-ball contracts — while seven were given white-ball contracts. The base salaries of those with Test and white-ball contracts were, respectively, £596,000 (US\$812,000) and £145,000 (US\$198,000) while those with both Test and white-ball contracts had a base salary of £740,000 (US\$1 million).¹¹

When it comes to women, in total, the ECB awarded regional contracts for 2021–22 to 41 women cricketers for the eight regional teams/hubs: Lightning (East Midlands), Central Sparks (West Midlands), Northern Diamonds (Yorkshire and North-East), South-East Stars (London and the South-East), Southern Vipers (South), Sunrisers (London and the East), Thunder (North-West), and Western Storm (South-West and Wales). In addition to these 41 regional contracts, a further 17 women cricketers were offered central contracts by the ECB for 2021–22 (Ballal, 2020). While the ECB has not confirmed what the contracts are worth, it is understood that the regional contracts will be worth £18,000 (US\$24,500) a year¹² with centrally contracted players at the top level earning around £50,000 (US\$68,000) a year.¹³

Most recently, the ECB has established the month-long Hundred competition which premiered in July 2021. As the name implies, each innings in the Hundred comprises 100 balls,

¹⁰ The players receiving an Increment contract for 2021–22 were Dom Bess, Jack Leach, Dawid Malan, and Chris Jordan.

¹¹ See: <https://www.sportsunfold.com/england-cricket-players-salary/> (accessed 18 August 2021).

¹² See: https://www.thecricketer.com/Topics/womenscricket/england_women_cricket_professional_contracts_retainers_alex_hartley_emma_lamb_tash_farrant_georgia_adams.html (accessed 18 August 2021).

¹³ See: <https://crickether.com/2018/06/08/news-pay-rises-for-england-women-as-contract-system-extended/> (accessed 18 August 2021).

bowled in bunches of 10 balls, in contrast to the 20 six-ball overs of traditional T20 competitions. Apart from this difference, the Hundred — which comprises eight city-based franchises each sponsoring a men's and a women's team — was modelled on the BBL and WBBL and expressed the same commitment to gender equality as the Australian model: the men's and women's matches were played on the same day, as a 'double-header', and prize money was equally shared between the men's and women's teams.

Although there was a danger with the double-header format that the women's matches could be relegated to the status of warm-up to the 'main' men's matches, this was obviated in the Hundred competition through its 'two teams, one club' core message. Another helpful factor in avoiding a walk-on role for women is that the time between the men's and women's matches was only an hour — a significant concession by the men's teams who were accustomed to a two-and-a-half-hour pre-match preparation routine (Nicholson, 2021). In essence, the ECB has done almost everything it could do to ensure that the Hundred competition was gender neutral: men and women had the same media opportunities; promotional material featured players of each gender; the matches were marketed as a 'family day out'; and, perhaps most importantly, terrestrial channels broadcast both men's and women's matches (Westbury, 2021).

The only fly in the ointment of a gender-neutral Hundred was pay inequality between men and women players. The ECB pay scales have female players earning between £3,600 and £15,000 for the five-week period that they are part of their Hundred squads while their male counterparts earn between £24,000 and £100,000. Thus, on these pay scales, the lowest paid man will earn significantly more than the highest paid woman. Nor is it possible to plead a lack of money to justify this anomaly: 11 Australian women cricketers were offered £10,000 each as 'disturbance money', in addition to their salaries of £15,000, to entice them to play in the Hundred — an offer, as it happens, that they declined.

The low salaries offered to women cricketers particularly affect those who are not professional cricketers and who, therefore, must combine playing cricket with holding down a regular job. These part-time cricketers — of whom there are at least five — have had to take their five weeks at the Hundred as annual leave or else have had to ask their employers for additional time off. For

such cricketers there is thus a genuine dilemma between playing cricket or working for a living (Westbury, 2021).

Like CA and the ECB, the Board of Control for Cricket in India (BCCI) offers players central contracts. Nineteen women were offered contracts for 2021–22 and these were grouped by annual salary into three bands: the three women in band A each received ₹5 million (US\$67,000); each of the 10 women in band B received ₹3 million (US\$40,000); while each of the six women in band C received ₹1 million (US\$13,500).¹⁴ At the same time, the BCCI offered central contracts for 2021–22 to 28 men cricketers, and these were grouped by annual salary into four bands: the three men in band A+ each received ₹70 million (US\$941,500); each of the 10 men in band A received ₹50 million (US\$672,500); the five men in group B each received ₹30 million (US\$403,500); and each of the 10 men in group C received ₹10 million (US\$134,500).¹⁵

So, overall, the highest paid Indian men cricketers (Virat Kohli, Rohit Sharma, and Jasprit Bumrah) received annual salaries that were 14 times those of the highest paid women cricketers (Harmanpreet Kaur, Smriti Mandhana, and Poonan Yadav) while the lowest paid men received annual salaries that were 10 times those of the lowest paid women. To put it differently, the entire salary bill for women cricketers in India, at ₹51 million, was substantially less than the salary of just one of the men in band A+ (₹70 million) and almost equal to the salary of one male cricketer in band B (₹50 million).

Like their counterparts in Australia and England, Indian cricketers can also earn income through franchise cricket. Indian male cricketers, regardless of whether they are under BCCI contract, are forbidden by the BCCI to play franchise cricket overseas.¹⁶ For Indian men, therefore, finding a place on one of the eight Indian Premier League squads is their only opportunity of earning income from franchise cricket. Indian women cricketers are not subject to this restriction and some of them have played in both the WBBL and the Hundred competitions.¹⁷ On the other hand, the women's IPL

¹⁴ Bhalla (2021).

¹⁵ Press Trust of India (2021).

¹⁶ See: <https://www.timesnownews.com/sports/cricket/article/revealed-why-bcci-doesnt-allow-its-players-to-participate-in-foreign-leagues/595643> (accessed 20 August 2021).

¹⁷ Harmanpreet Kaur, Smriti Mandhana, Jemima Rodriguez, Deepti Sharma, and Shafali Verma have played in the Hundred; and Harmanpreet Kaur, Veda Krishnamurthy, and Smriti Mandhana have played in the WBBL.

is in an embryonic stage, with just three teams who play round-robin matches from which the two top teams contest the final, so the opportunities for Indian women to earn money from this competition are severely limited.

IPL salaries differ from those in other franchise leagues in that they are the outcome of an open auction of players, the bidders being the franchise owners, rather than being the result of administratively determined pay scales. The use of this practice to determine salaries raises several issues associated with auctions, such as the ‘winner’s curse’ and ‘irrational exuberance’; these are discussed below.

6.4 The Indian Premier League Auction

The IPL auctions feature a list of (male) players to be acquired by one of the eight teams in the competition.¹⁸ Teams bid for players, using funds from their auction budget, and the team bidding highest for a particular player wins his services for that edition of the tournament. The auction list consists of two types of players: those who have been released by their team and those who make a fresh registration. Each player has a certain base price which is the minimum amount that must be paid for their services. Overseas players set their own base price, while the base price of the Indian players is set in discussion with the BCCI. For each player in whom a team expresses interest, bidding starts at the base price and continues through incremental bids until the highest uncontested bid emerges.

The composition of the teams’ squads is subject to certain restrictions, the most important of which is that squads can have a maximum of 25 members of which not more than eight can be from overseas. The playing 11, however, cannot include more than four overseas players and, indeed, not more than four overseas players per team can be on the field at any time.¹⁹

Each team is subject to a salary cap — currently ₹850 million (US\$11.5 million) per year — from which it must pay its salary bill. There are two ways for a team to acquire funds to buy new players: it could release members of its current squad and use the money to buy new players, or it

¹⁸ At the time of writing, these were: Chennai Super Kings, Delhi Capitals, Kolkata Knight Riders, Mumbai Indians, Punjab Kings, Rajasthan Royals, Royal Challengers Bangalore, and Sunrisers Hyderabad.

¹⁹ This means that with four overseas players playing, a substitute for an injured Indian player cannot be an overseas player as that would mean five overseas players on the field.

could spend less than its salary cap thus carrying over a surplus into next year's auction.

Consequently, teams which retain a large proportion of their players have comparatively less money to spend at auction. In the 2020 IPL auction, a total of 62 players were bought, of whom 29 were overseas players, for a total outlay of ₹1,403 million (US\$18.9 million). On the other hand, a total of 127 players — 35 overseas and 92 Indians — were retained by the teams. The funds available to the individual teams for the 2020 auction are shown in Table 6.1.

<Table 6.1>

Table 6.1 shows that Mumbai Indians and Chennai Super Kings spent the least at the 2020 auction; this is, firstly, because they retained many of their top players and, secondly, because players that they did release were at the low end of the pay scale. On the other hand, Punjab Kings was the largest spender with an outlay of ₹427 million (US\$5.7 million) largely from funds generated by releasing several expensive players. So, in terms of releasing funds for buying new players it is not just the number of players released that is significant but also their cost: Mumbai Indians released 12 players against Punjab Kings' seven but one of the players released by the latter was Varun Chakravarty who had cost ₹87 million (US\$1.2 million).

The money paid for a player is his salary and is valid for a season — so if ₹10 million (US\$135,000) is paid for a player at auction, then that is what he is paid for that season. For overseas players, 20% of what the player earns is paid to his home cricket board by the BCCI, from a central pool. Thus, if ₹10 million was paid to an Australian player, CA would receive ₹2 million (US\$27,000). Payments are staggered, often following a 15-65-20 formula so that 15% is paid at the start, 65% during the season, and 20% at the season's conclusion.²⁰

<Table 6.2>

Table 6.2 lists the 62 players who were bought at the 2020 IPL auction, held in Kolkata on 19 December 2019, along with information on: (i) whether they were overseas or Indian players; (ii) the team buying them; (iii) their base price; (iv) their sale price; and (v) the mark-up of sale over base price. This shows that the most expensive player in the IPL 2020 auction was the Australian fast

²⁰ See: <https://timesofindia.indiatimes.com/sports/cricket/ipl/top-stories/ipl-salary-structure-explained/articleshow/81110563.cms> (accessed 20 August 2021).

bowler, Pat Cummins, who fetched ₹155 million (US\$2.1 million) with a 7.8 mark-up over his base price of ₹20 million (US\$269,000). The next most expensive player was the Australian all-rounder, Glenn Maxwell, who fetched ₹107.5 million (US\$1.45 million) with a 5.4 mark-up over his base price of ₹20 million (US\$269,000). The most expensive Indian player was the leg-spinner, Piyush Chawla, who sold for ₹67.5 million (US\$908,000) with a 6.8 mark-up over his base price of ₹10 million (US\$135,000).

Inequality in Base and Sale Prices

The average sale price of overseas players, at ₹35.7 million (US\$480,000), was 3.5 times that of the average sale price of ₹10.3 million (US\$138,500) for Indian players. However, since overseas players had, on average, a higher base price, ₹10.7 million (US\$143,900) compared to the ₹3.2 million (US\$43,000) of Indian players, the average mark-up of overseas and Indian players was nearly the same: 3.3 (overseas) versus 3.2 (Indian). Twenty-one of the 33 Indian players and 16 of the 29 overseas players up for auction — respectively, 64% and 55% of their cohorts — failed to improve on their base price.

Furthermore, inequality between players in base prices was considerably less than the inequality in sale prices. The values of the Gini coefficient were 0.456 and 0.628 for the distribution over the 62 players of, respectively, base and sale prices. This represents a considerable increase in inequality from the 2008 auction when the corresponding Gini values were 0.186 and 0.321 (Borooah and Mangan, 2012). The Gini value of 0.456 for inequality in base prices implies that the difference in base price between two players chosen at random would be 91.2% of the average: since the average base price, computed over all 62 players, was ₹6.8 million (US\$91,500), this difference would be ₹6.2 million (US\$83,400). The Gini value of 0.628 for inequality in sale prices implies that the difference in sale price between two players chosen at random would be 126% of the average: since the average sale price, computed over all 62, players was ₹22.6 million (US\$304,000), this difference would be ₹28.5 million (US\$383,300).²¹

²¹ See chapter 4 for a discussion of the Gini coefficient.

The above results are the consequence of two effects operating simultaneously. The first is a *mean-enhancing* effect whereby the pre-auction average base price rose from ₹6.8 million (US\$91,500) to the post-auction average sale price of ₹22.6 million (US\$304,000). The second is an *inequality-increasing* effect whereby, in the movement from base prices to sale prices, the distribution of rewards became more unequal. If there was no change in inequality between the base price and sale price distributions (that is, the Gini value of 0.456 remained unchanged), the average difference in sale price between two players chosen at random would have been ₹20.6 million (US\$277,000).²² This difference, computed based on inequality in the distribution of sale and base prices being the same, represents the mean-enhancing effect. So, of the total difference in the sale prices of two players chosen at random — ₹28.5 million (US\$383,300) — 72% or ₹20.6 million (US\$277,000) was due to the mean-enhancing effect and the remaining 28% was due to the inequality-increasing effect.

Inequality Decomposition

As discussed in chapter 4, the method of inequality decomposition divides overall inequality into two parts: ‘between-group’ and ‘within-group’ inequality. When the decomposition is *additive*, overall inequality can be written as the *sum* of within-group and between-group inequality:

$$\underbrace{I}_{\text{overall inequality}} = \underbrace{A}_{\text{within-group inequality}} + \underbrace{B}_{\text{between-group inequality}}$$

When inequality is additively decomposed then one can say that the basis on which the individual teams were subdivided contributed [(B/I)×100] % to overall inequality, the remaining inequality, [(A/I)×100] %, being due to inequality *within* the team subgroups.

Inequality decomposition thus provides a way of analysing the extent to which inter-team inequality in salaries is ‘explained’ by the factor (or a set of factors) used to assemble them into groups. If, indeed, inequality can be ‘additively decomposed’ then, as Cowell and Jenkins (1995) have shown, the proportionate contribution of the between-group component (**B**) to overall inequality is the income inequality literature’s analogue of the R^2 statistic used in regression analysis: the size of this

²² That is, 91.2% of the average sale price of ₹22.6 million (US\$304,000).

contribution is a measure of the amount of inequality that can be ‘explained’ by the factor (or factors) used to subdivide the sample.

Suppose the 62 players bought in the 2020 auction were separated into two groups: overseas and Indian. Then using Theil’s Mean Logarithmic Deviation (MLD) index — see chapter 4 for details — in conjunction with the data in Table 6.2, it transpires that 46% of inequality in base prices, but 21% of inequality in sale prices, is due to between-group inequality. Overseas players set their own base price and there is not much difference between overseas players in the base price they set; similarly, Indian players set their base price in consultation with the BCCI and, again, there is not much difference between Indian players in their base price. There was, however, a substantial difference between the average base prices of overseas and Indian players: ₹10.7 million (US\$143,900) compared to ₹3.2 million (US\$43,000).

Irrational Exuberance

Borooah and Mangan (2012) argued that the base price for a player is, for the most part, founded on the publicly available information about them. For example, batter X’s base price might be based on *inter alia* their batting average, their strike rate (runs per 100 balls), their specialist position in the batting order, and the form of cricket to which they are best suited. Private information might also influence the base price: it might be ‘known’ about an Indian player whether they are a positive (or negative) influence in the dressing room, without corresponding information being available about overseas players. Similarly, base prices might be influenced by a player’s nationality: there might be a nationalistic bias in favour of Indian players or, conversely, an excessive awe of overseas cricketers. However, given that cricket is a game replete with publicly available statistical information about all international (and national) players, it is likely that — the above caveats notwithstanding — base prices follow the semi-strong version of the efficient market hypothesis (Fama, 1970): that is, that the base prices of players reflect all the publicly available information about them and that these prices would change in subsequent IPL auctions only in response to newly available public information. In a rational market, therefore, one might expect a close correlation between base and sale prices.

However, this did not appear to be the case with the IPL auctions which were characterised by large and unexpected differences between base and sale prices. For example, as Table 6.2 shows, in

the 2020 IPL auction, Eoin Morgan, captain of the England limited-overs teams and one of the best white-ball batsmen in the world, commanded a sale price of ₹52.5 million (US\$706,000), which was just under half of the ₹107.5 million (US\$1.46 million) paid for the Australian all-rounder, Glen Maxwell. Similarly, the player who commanded the highest sale price in the 2020 IPL auction was the Australian fast bowler, Pat Cummins — ₹155 million (US\$2.1 million) — while his bowling partner in the Australian team, Josh Hazlewood, could not get any advance on his base price of ₹20 million (US\$269,000). This suggests that bidders ‘got carried away’ during the auction process with their outrageously high bids affected by what Shiller (2005) called ‘irrational exuberance’. Since Shiller first coined the term, ‘irrational exuberance’ has come to mean a heightened sense of speculative fever. Akerlof and Shiller (2009), in their seminal book on the role of human psychology in driving the economy, drew attention to Keynes’ contention that much of economic activity was driven by ‘animal spirits’; left to their own devices, capitalist economies would pursue excess, with manias followed by panic.

An interesting question is why, if the base prices incorporated all relevant information about the players, there should have been such a large degree of investor exuberance associated with the IPL auction? To explain this one must appeal to the literature on behavioural finance which emphasises the psychological underpinnings of financial transactions. Krugman (2009) observed that this literature emphasises two things: first, many real-world investors, instead of being the cool calculators of efficient-market theory, were subject to herd behaviour and to bouts of irrational exuberance and unwarranted panic; second, even those who sought to base their decisions on cool calculation often found that problems of trust, credibility, and limited collateral forced them to run with the herd. Under the behavioural finance paradigm, therefore, investors were likely to be overconfident, to want to gamble and speculate, to regard history as irrelevant, and to posture by making extravagantly expensive purchases.

Winner’s Curse

In situations where bidders are competing for an item, with a commonly agreed but uncertain value range, the winner commonly suffers the ‘winner’s curse’ of overpaying. The winner’s curse first surfaced in the literature on competitive bidding for oil leases (Capen *et al.*, 1971) and has been

identified in several studies and within several competitive bidding environments (Dessauer, 1981). A winner's curse can arise in one of two ways (Thaler, 1988): (i) the winner bids more than the value of the item and thereby suffers a loss; (ii) the winner discovers after the event that the value of the item was less than the value imputed to it at the auction.

Take Pat Cummins, the most expensive player in the 2020 IPL auction bought by Kolkata Knight Riders (KKR) for ₹155 million (US\$2.1 million). He bowled seven overs for KKR in 2021, took 9 wickets for an average of 26.33 with an economy rate of 8.83 runs per over. In contrast, Shahbaz Ahmad, who was bought by Royal Challengers Bangalore for his base price of ₹20 million (US\$269,000) took four wickets for an average of 8.0 while Chris Woakes, bought by Delhi Capitals for his base price of ₹15 million (US\$202,000), took five wickets for an average of 16.0. Two bowlers who were sold at the 2020 IPL auction — Lalit Yadav and Shahbaz Ahmad, both for their base price of ₹20 million (US\$269,000) — had economy rates of 6 and 6.4, respectively. The Australian all-rounder, Glen Maxwell, bought by Punjab Kings for ₹107.5 million (US\$1.5 million) was the second most expensive player in the 2020 IPL auction and one of the most expensive bowlers in the 2021 IPL matches: his two wicket-less overs, in seven matches, went at 12 runs an over.²³ In terms of batting, there were nine players who scored more runs than he did, and he did not feature among the 10 batsmen with the highest strike rate.²⁴ So, there is a *prima facie* case for regarding these expensive players as instances of the 'winner's curse' and its counterpart, 'buyer's regret'.

Yet, notwithstanding the bitter taste of dashed expectations, the IPL continues to pay extravagant salaries to some and no more than the base salary to others: 36 of the 63 players bought in the 2020 IPL auction failed to improve on their base price and, as has been shown above, sale price inequality in 2020 was considerably higher than it was in 2008. Akerlof and Shiller (2009) emphasised five aspects which underpinned irrational exuberance: confidence, fairness, corruption and antisocial behaviour, money illusion, and stories.

Borooah and Mangan (2012) argued that many of these conditions were present in the IPL. The heady mixture of Bollywood actors working with cricketers, who were household names,

²³ <https://sports.ndtv.com/ipl-2021/stats/4165-15-bowling-statsdetail> (accessed 23 August 2021).

²⁴ <https://sports.ndtv.com/ipl-2021/stats/4165-1-batting-statsdetail> (accessed 23 August 2021).

generated an over-blown confidence; there was the story of India flexing its muscles by dominating a game long controlled by the ‘White Commonwealth’ countries; there was the corruption associated with match-fixing; money illusion was a feature of the auction as a few million rupees here and there did not seem to matter to buyers competing in the crucible of IPL auctions. The result is an ongoing cycle of excess and regret.

6.5 Conclusions

This chapter argued that gender inequality in the remuneration of sportspersons is consistent with a general inequality of earnings between men and women. Arguably, some sports, like tennis, have gone some way towards establishing parity by paying equal prize money to men and women in Grand Slam tournaments while other sports, like golf, have remained impervious to gender disparities. The arguments against gender parity can be subsumed under two headings: that men play more hours in tournaments than women, and that they have superior skills. The first argument misses the point that the hours spent playing in a tournament belies the number of hours spent in training with there being no suggestion that men train harder than women. The second argument ignores the fact that prize money is awarded to players who triumph over their peers in their gender category and is not based on who can hit a golf ball further or strike a tennis ball harder. In addition, spectators are attracted by the closeness of competition between players and by the novelty of ‘David versus Goliath’ type contests. It is no accident that, in the US Open tennis tournament of 2021, the players who received the most media attention were two women — Emma Raducanu and Leylah Fernandez — who by their precocity captured the imagination of the tennis public.

Equal prize money for men and women does not, however, work well in reducing gender disparities in sports earnings when sportsmen and women, rather than being individual contractors as in tennis and golf, are, as in cricket, employees of the cricket boards and/or the franchises to which they are affiliated. In such a situation, with the bulk of earnings emanating from salaries, men and women are dependent on the pay scales set by their employers. As this chapter has shown, employers in cricket do not make any pretence of striving for gender equality when setting pay scales; even in a tournament like the Hundred which, more than most tournaments, aspires to be gender-sensitive, the ECB has seen fit to pay the highest paid woman player substantially less than the lowest paid man.

An alternative to administratively determined pay scales in cricket might be to let the market determine salaries, through an auction of players. This is the practice adopted by the IPL. As this chapter has shown, auctions are characterised by ‘irrational exuberance’ leading to ‘winner’s curse’ and ‘buyer’s regret’. More generally, it leads to extreme inequality in the earnings of players of roughly similar ability and, if the IPL experience is anything to go by, the passage of time has only exacerbated these inequalities.

Sekhri (2016, chapter 5, loc. 1,828)), in his comprehensive book on the Indian Premier League, has argued that ‘if there is one aspect of the IPL that requires immediate change it is the auction system’. Several features of the IPL’s system of determining the composition of the franchises’ teams are unsatisfactory. First, teams with deep pockets place little reliance on the auction since, year after year, they retain their core players by paying them high wages. They can do so because the salaries paid to retained players can be supplemented by providing other sources of income (such as acting as ‘Brand Ambassador’). Consequently, team stability is very different for teams like Chennai Super Kings and Mumbai Indians which do not rely on auctions (spending, respectively, ₹146 million (US\$1.9 million) and ₹130.5 million (US\$1.7 million) in the 2020 auction) and teams like Kolkata Knight Riders and Punjab Kings (spending, respectively, ₹357 million (US\$4.8 million) and ₹427 million (US\$5.7 million) in 2020) which do. Second, because of retentions, a minority of players who featured in the 2021 IPL were acquired through auction: only 62 of the 195 players who played in the 2021 tournament had been bought at the auction which preceded it. Consequently, the IPL franchises view the auction as a gamble in which they splash out money to buy a few players they think might have the Midas touch.

So long as this system continues, gross inequalities in the remuneration of players will persist. Yet, the IPL has little incentive to change its structure. Unlike other sports, the *leitmotif* of cricket is international matches in which country plays country and the highest ambition of players is to don national colours, ideally for a Test Match. In the face of this, the IPL is but a side show: it has to accommodate its schedule to the demands of the international cricketing calendar, and it has to face the fact that for international cricketers it is little more than a cash cow. It is no accident that, played

over a period of seven weeks, the IPL is the shortest of all major sporting leagues. It is the relative insignificance of the IPL in international cricket that strangles any desire for it to reform itself.

Table 6.1: Team Expenditure on New Players in the IPL Auction, Kolkata 19 December 2020

| | Money Available for Auction | Slots Available | Squad Size | Overseas Players |
|-----------------------------|-----------------------------------|--------------------|------------|------------------|
| Chennai Super Kings | ₹146 million (\$1.96 million) | 5 (2 overseas) | 24 | 8 |
| Delhi Capitals | ₹278.5 million (\$3.7 million) | 11 (5 overseas) | 22 | 8 |
| Kolkata Knight Riders | ₹357 million (\$4.8 million) | 11 (2 overseas) | 23 | 8 |
| Mumbai Indians | ₹130.5 million (\$1.8 million) | 7 (2 overseas) | 24 | 8 |
| Punjab Kings | ₹427 million (\$5.7 million) | 9 (4 overseas) | 25 | 8 |
| Rajasthan Royals | ₹289 million (\$3.9 million) | 11 (4 overseas) | 25 | 8 |
| Royal Challengers Bangalore | ₹279 million (\$3.8 million) | 12 (6 overseas) | 21 | 8 |
| Sunrisers Hyderabad | ₹170 million (\$2.3 million) | 7 (2 overseas) | 25 | 8 |

Source: Bhattacharya (2019)

Table 6.2: Reserve and Sale Prices of Players Bought in the Indian Premier League 2020 Auction
(All Prices in Millions of Indian Rupees: 10 million Indian Rupees = US\$134,500)

| Player | Overseas/Indian | Buyer | Base_Price | Sale_Price | Markup: Sale Price/Base Price |
|---------------------|-----------------|-----------------------------|------------|------------|----------------------------------|
| Pat Cummins | Ovs | Kolkata Knight Riders | 20 | 155 | 7.8 |
| Glenn Maxwell | Ovs | Punjab Kings | 20 | 107.5 | 5.4 |
| Chis Morris | Ovs | Royal Challengers Bangalore | 15 | 100 | 6.7 |
| Sheldon Cottrell | Ovs | Punjab Kings | 5 | 85 | 17 |
| Nathan Coulter-Nile | Ovs | Mumbai Indians | 10 | 80 | 8 |
| Shimron Hetmeyer | Ovs | Delhi Capitals | 5 | 77.5 | 15.5 |
| Sam Curran | Ovs | Chennai Super Kings | 10 | 55 | 5.5 |
| Eoin Morgan | Ovs | Kolkata Knight Riders | 15 | 52.5 | 3.5 |
| Marcus Stoinis | Ovs | Delhi Capitals | 10 | 48 | 4.8 |
| Aaron Finch | Ovs | Royal Challengers Bangalore | 10 | 44 | 4.4 |
| Kane Richardson | Ovs | Royal Challengers Bangalore | 15 | 40 | 2.7 |
| Chris Jordan | Ovs | Punjab Kings | 7.5 | 30 | 4 |
| Alex Carey | Ovs | Delhi Capitals | 5 | 24 | 4.8 |
| Chris Lynn | Ovs | Mumbai Indians | 20 | 20 | 1 |
| Josh Hazlewood | Ovs | Chennai Super Kings | 20 | 20 | 1 |
| Mitchell Marsh | Ovs | Sunrisers Hyderabad | 20 | 20 | 1 |
| Dale Steyn | Ovs | Royal Challengers Bangalore | 20 | 20 | 1 |
| Jason Roy | Ovs | Delhi Capitals | 15 | 15 | 1 |
| Chis Woakes | Ovs | Delhi Capitals | 15 | 15 | 1 |
| Andrew Tye | Ovs | Rajasthan Royals | 10 | 10 | 1 |
| Tom Curran | Ovs | Rajasthan Royals | 10 | 10 | 1 |
| Tom Banton | Ovs | Kolkata Knight Riders | 10 | 10 | 1 |
| David Miller | Ovs | Rajasthan Royals | 7.5 | 7.5 | 1 |
| Oshane Thomas | Ovs | Rajasthan Royals | 5 | 5 | 1 |
| Fabian Allen | Ovs | Sunrisers Hyderabad | 5 | 5 | 1 |
| James Neesham | Ovs | Punjab Kings | 5 | 5 | 1 |
| Josh Phillippe | Ovs | Royal Challengers Bangalore | 2 | 2 | 1 |
| Chris Green | Ovs | Kolkata Knight Riders | 2 | 2 | 1 |
| Isuru Udana | Ovs | Royal Challengers Bangalore | 5 | 5 | 1 |
| Piyush Chawla | Ind | Chennai Super Kings | 10 | 67.5 | 6.8 |
| Varun Chakravathy | Ind | Kolkata Knight Riders | 3 | 40 | 13.3 |
| Jaydev Undakat | Ind | Rajasthan Royals | 10 | 30 | 3 |
| Robin Uthappa | Ind | Rajasthan Royals | 15 | 30 | 2 |
| Yashavi Jaiswal | Ind | Rajasthan Royals | 2 | 24 | 12 |
| Ravi Bishnoi | Ind | Punjab Kings | 2 | 20 | 10 |
| Priyam Garg | Ind | Sunrisers Hyderabad | 2 | 19 | 9.5 |
| Virat Singh | Ind | Sunrisers Hyderabad | 2 | 19 | 9.5 |
| Kartik Tyagi | Ind | Rajasthan Royals | 2 | 13 | 6.5 |
| Anuj Rawat | Ind | Rajasthan Royals | 2 | 8 | 4 |
| Rahul Tripathi | Ind | Kolkata Knight Riders | 2 | 6 | 3 |
| Prabhsimran Singh | Ind | Punjab Kings | 2 | 5.5 | 2.8 |
| Deepak Hooda | Ind | Punjab Kings | 4 | 5 | 1.3 |
| Mohit Sharma | Ind | Delhi Capitals | 5 | 5 | 1 |
| Saurabh Tiwary | Ind | Mumbai Indians | 5 | 5 | 1 |
| Pavan Deshpande | Ind | Royal Challengers Bangalore | 2 | 2 | 1 |
| Shahbaz Ahmad | Ind | Royal Challengers Bangalore | 2 | 2 | 1 |
| Nikhil Naik | Ind | Kolkata Knight Riders | 2 | 2 | 1 |
| Lalit Yadav | Ind | Delhi Capitals | 2 | 2 | 1 |
| Tarjinder Dhillon | Ind | Punjab Kings | 2 | 2 | 1 |
| Sanjay Yadav | Ind | Sunrisers Hyderabad | 2 | 2 | 1 |
| Mohsin Khan | Ind | Mumbai Indians | 2 | 2 | 1 |
| Balwant Rai Singh | Ind | Mumbai Indians | 2 | 2 | 1 |
| R. Sai Kishore | Ind | Chennai Super Kings | 2 | 2 | 1 |
| Tushar Deshpande | Ind | Delhi Capitals | 2 | 2 | 1 |
| B. Sandeep | Ind | Sunrisers Hyderabad | 2 | 2 | 1 |
| Ishan Porel | Ind | Punjab Kings | 2 | 2 | 1 |
| Pravin Tambe | Ind | Kolkata Knight Riders | 2 | 2 | 1 |
| M. Siddarth | Ind | Kolkata Knight Riders | 2 | 2 | 1 |
| Aniruddha Joshi | Ind | Rajasthan Royals | 2 | 2 | 1 |
| Abdul Samad | Ind | Sunrisers Hyderabad | 2 | 2 | 1 |
| Digvijay Deshmukh | Ind | Mumbai Indians | 2 | 2 | 1 |
| Akash Singh | Ind | Rajasthan Royals | 2 | 2 | 1 |

Source: Ghosh (2019)

References

- Akerlof, G.A., and Shiller, R.J. (2009), *Animal Spirits: How Human Psychology Drives the Economy and Why it Matters for Global Capitalism*, Princeton (NJ): Princeton University Press.
- Arun, S.V., Arun, T.G., and Borooah, V.K. (2004), “The Effect of Career Breaks on the Working Lives of Women”, *Feminist Economics*, **10**: 65–84.
- Ballal, J. (2020), “41 Full-Time Domestic Contracts Announced for Female Cricketers by ECB”. <https://femalecricket.com/women-cricket-news/15677-41-full-time-domestic-contracts-announced-for-female-cricketers-by-ecb-see-list.html> (accessed 18 August 2021).
- Barroso, A., and Brown, A. (2021), “Gender Pay Gap in the U.S. Held Steady in the 2020s”, Pew Research Center. <https://www.pewresearch.org/fact-tank/2021/05/25/gender-pay-gap-facts/> (accessed 11 August 2021).
- Becker, G. (1985), “Human Capital, Effort and the Sexual Division of Labour”, *Journal of Labor Economics*, **3**: S53–S59.
- Becker, G. (1991), *A Treatise on the Family*, Cambridge (MA): Harvard University Press.
- Bhalla, S.J. (2021), “Pay Difference Men’s vs Women’s Cricket Team”, *True Scoop* 24 May. <https://www.truescoopnews.com/newsdetail/pay-difference-mens-vs-womens-cricket-team-is-it-discrimination-or-acceptable> (accessed 19 August 2021).
- Bhattacharya, I. (2019), “IPL 2020: How Much Money Does Each Team Have for the Auction”, *The Quint* 19 December. <https://www.thequint.com/sports/ipl/ipl-2020-how-much-money-does-each-team-have-left#read-more> (accessed 20 August 2021).
- Bialik, C. (2014), “Tennis Has an Income Inequality Problem”. <https://fivethirtyeight.com/features/tennis-has-an-income-inequality-problem/> (accessed 17 August 2021).
- Borooah, V.K., and Mangan, J. (2012), “Mistaking Style for Substance: Investor Exuberance in the 2008 Indian Premier League Auction”, *Journal of Sports Economics* **13**: 266–287.
- Capen, E., Clapp, C., and Campbell, W. (1971), “Competitive Bidding in High-Risk Situations”, *Journal of Petroleum Technology*, **23**: 641–653.

- Chang, R. (2021), “How Billie Jean King Led the Equal Pay for Play Battle”.
<https://www.history.com/news/billie-jean-king-equal-pay-for-play> (accessed 16 August 2021).
- Cowell, F.A., and Jenkins, S.P. (1995), “How Much Inequality Can We Explain? A Methodology and an Application to the United States”, *Economic Journal*, **105**: 421–430.
- Cricket Australia (2017), *Australian Cricket Strategy 2017–2022*, Melbourne: Cricket Australia.
https://read.e-brochures.com.au/cricketaustralia/2017-strategy-booklet/assets/pdf/Australian_Cricket_Strategy_Booklet.pdf (accessed 17 August 2021).
- Dessauer, J. (1981), *Book Publishing*, New York (NY): Bowker.
- Fama, E. (1970), “Efficient Capital Markets: A Review of Theory and Empirical Work”, *Journal of Finance*, **25**: 383–417.
- Frick, B. (1998), “Lohn und Leistung im professionellen Sport: Das Beispiel Stadt-Marathon”, *Konjunkturpolitik*, **44**: 114–140.
- Frick, B. (2011), “Gender Differences in Competitive Orientations: Empirical Evidence from Ultramarathon Running”, *Journal of Sports Economics*, **12**: 317–340.
- Garcia-Navarro, L. (2017), “‘But Seriously’, Tennis Great John McEnroe Says He’s Seeking ‘Inner Peace’”. <https://www.npr.org/2017/06/25/534149646/but-seriously-tennis-great-john-mcenroe-says-hes-seeking-inner-peace?t=1629103304445> (accessed 16 August 2021).
- Ghosh, A. (2019), “IPL 2020 Auction: The List of Sold and Unsold Players”, ESPN Cricinfo 19 December. <https://www.espncricinfo.com/story/ipl-2020-auction-the-list-of-sold-and-unsold-players-1210538> (accessed 21 August 2021).
- Global Sports Salaries Survey (2017), *The Gender (In)Equality Issue*, Helensburgh (Scotland): Sporting Intelligence.
- Heath, E. (2021), “Revealed: Golf’s Gender Pay Gap One of the Biggest in Sport”, *Golf Monthly*, 10 March. <https://www.golfmonthly.com/news/tour-news/golfs-gender-pay-gap-one-of-the-biggest-in-sport-222592> (accessed 14 August 2021).
- ILO (2015), *Women and the Future of Work*, Geneva: International Labour Organisation.

- Jolly, L. (2021), *Choose to Challenge: The Long Path to Professionalism*, Melbourne: Cricket Australia. <https://www.cricket.com.au/news/choose-to-challenge-womens-cricket-contracts-pay-conditions-professionalism-iwd-part-1/2021-03-01> (accessed 17 August 2021).
- Katsarova, I. (2019), *Gender Equality in Sport: Getting Closer Every Day*, European Parliamentary Research Service, Strasbourg: European Parliament.
- Krugman, P. (2009), “Mistaking Beauty for Truth: How Did Economists Get It So Wrong?”, *The New York Times*, 2 September. <https://www.nytimes.com/2009/09/06/magazine/06Economic-t.html?searchResultPosition=1> (accessed 22 August 2021).
- Nicholson, R. (2021), “Why the Hundred Double Headers Have Boosted Women’s Game”, *The Guardian*, 13 August. <https://www.theguardian.com/sport/2021/aug/13/why-hundred-double-headers-boosted-womens-cricket> (accessed 19 August 2021).
- Press Trust of India (2021), “BCCI Central Contracts”, *Times of India*, 15 April 2021, <https://timesofindia.indiatimes.com/sports/cricket/news/bcci-central-contracts-virat-rohit-bumrah-remain-in-top-bracket-pandya-promoted-to-grade-a/articleshow/82088157.cms> (accessed 19 August 2021).
- Rothenberg, B. (2016), “The Pay Gap in Tennis”, *The New York Times*, 13 April. <https://www.nytimes.com/2016/04/13/sports/tennis/equal-pay-gender-gap-grand-slam-majors-wta-atp.html> (accessed 16 August 2021).
- Rubery, J., and Grimshaw, D. (2015), *The Motherhood Pay Gap: A Review of the Issues, Theory and International Evidence*, Geneva: International Labour Organisation.
- Sekhri, D.G. (2016), *Not Out! The Incredible Story of the Indian Premier League*, Gurgaon: Penguin Books India.
- Shiller, R.J. (2005), *Irrational Exuberance*, Princeton (NJ): Princeton University Press.
- Shmanske, S. (2000), “Gender, Skill, and Earnings in Professional Golf”, *Journal of Sports Economics*, **1**: 385–400.
- Thaler, R.H. (1988), “The Winner’s Curse”, *Journal of Economic Perspectives*, **2**: 191–202.
- TUC (2016), *The Motherhood Pay Penalty*, London: Trade Unions Congress.

Westbury, I. (2021), “Hundred Pay Row Rocks ECB Two Days Before Launch”, *The Daily Telegraph*, 19 July. <https://www.telegraph.co.uk/cricket/2021/07/19/exclusive-ecb-gender-pay-row-two-days-launch-hundred/> (accessed 19 August 2021).

Westbury, I. (2021), “The Hundred: Women’s Game Being Transformed by New Competition”, BBC, 11 August. <https://www.bbc.co.uk/sport/cricket/58149676> (accessed 19 August 2021).