The economics of superstars

Fabrizio Carmignani
School of Economics

Look at these numbers? (millions of AUD)
Earnings of players in the Spanish Liga (www.futebolfinance.com), 2010

- Cristiano Ronaldo 16.9
- Zlatan Ibrahimovic 15.5
- Lionel Messi 13.6
- Kaka 13.0
- Average in the Liga 0.9

Just for comparison: average in the NRL is around 165,000 and in the AFL is around 240,000.

Look at these numbers? (millions of AUD)
Earnings of players in the Premier League (www.futebolfinance.com), 2010

- Emmanuel Adebayor 11.1
- Carlos Tevez 10.5
- John Terry 9.7
- Frank Lampard 9.7
- Average in the League 0.8

Look at these numbers? (millions of AUD)
Earnings of F1 drivers (Official FIA statistics), 2010

- Fernando Alonso 40
- Lewis Hamilton 21.1
- Average in F1 6.6

Look at these numbers? (millions of AUD)
Earnings of NBA players (www.sportscity.com), 2010-2011.

- Kobe Bryant 23.8
- Rashard Lewis 21.2
- Tim Duncan 20.1
- Average in the NBA 4.6

What do these numbers tell you?

1. There are some professions that are much better paid than most others
2. Even within highly paid professions, there are huge differences between the top earners and the others.

- The fact that a few individuals in selected professions can enjoy huge salaries is denoted as the superstar phenomenon

Where do we find superstars?

- The previous examples all refer to professional sports.
- It is easy to find other examples in the entertainment business
  - Think for instance of how many actors there are in the movie industry and how many (few) of them earn tens of millions of dollars for a movie.
- Not all sports and/or entertainment activities have superstar effects.
  - There might be some "geographical" or "cultural effects". For instance, difficult to think of superstars in skiing, ice-skating, or hockey on ice in Australia, while in Canada, US and Europe there are superstars in these sports.
Why do superstars arise?

Let’s start with a simple example

- You are the owner of an NRL team. You want to sign Jonathan Thurston for the next season.
- You believe that if Thurston joins your team, attendance will increase and people will be willing to pay a higher price to see the game.
- You quantify this increase in revenues to 1 million.
- How much are you willing to give him? (Forget about salary caps for now)

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Why do superstars arise?

- In general, it is reasonable to think that the salary of the player (or performer) will be related to his “marginal product”; that is, to the extra-revenues that the player (or performer) is likely to generate.
- So players with a very high marginal product will become superstars.
- The question then: what determines this marginal product? Or, to put it differently, why do some players have such high marginal product to justify superstar salaries?

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Why do superstars arise?

- Using our simple example, we can say that the marginal product of a player or performer is related to two factors:
  1. The extra price that a “consumer” (i.e., fan, spectator, etc.) is willing to pay to see the player/performer.
  2. The total number of consumers that are willing to pay to see the player/performer.

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Why do superstars arise?

- In turn, people willingness to pay depends on:
  - the Talent of the player/performer
  - the Popularity of the player/performer

So, to become a superstar a player/performer must have talent and/or be popular.

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Why do superstars arise?

- Talent argument (goes back to Rosen, 1981)
  - Consumers are willing to pay to watch an excellent performance. Therefore they highly value talent.
  - Does this mean that Cristiano Ronaldo is 20 times more talented than the average player in the Spanish Liga?
  - No, marginal differences in talent can determine disproportionate differences in earnings:
    - Everybody wants to see "the best" (i.e., most talented player), even if the second best is only slightly less talented than the best.

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Why do superstars arise?

Popularity argument (goes back to Adler, 1985)

- Consumers are attracted by more than just a player’s performance. Consumers appreciation of a performance increases with the “knowledge” that they have about the player/performer.
- A more popular player (i.e. someone who is frequently in the media) is better known and more discussed by the fans and his performances are more appreciated.
  - Think for instance of Rock Concerts: the more we talk about Lady Gaga, the more we want to go to see her concerts.

Why do superstars arise?

The relationship between talent, popularity, and earnings

Earnings

100
200
300
400
500
600
700
800
900
1000

Talent, Popularity

Why do superstars arise?

Talent and popularity explain why superstars only arise in some professions:  

- Superstars will only arise in professions where there is a very large potential audience that highly values excellent performances
  - It is difficult that, for now, a superstar will rise in Italian Rugby: too small market, little expertise to appreciate talent and excellence, and limited popularity (media only write about rugby in connection with big international events)
  - Importance of technology (we will come back to this)

Why do superstars arise?

Thinking about superstars

- Top professional athletes (in some sports) earn so much more than doctors, teachers, lecturers, policemen, and people who do very important jobs for the community. How fair is this? (Not much if you ask me)
  - But we know why: the market conditions that lead to the creations of superstars do not exist in many professions (i.e. large audiences, willingness to pay for best quality, recognition of talent and popularity, etc.)
  - In some cases, salaries in certain categories might be capped (i.e. doctors in some National Health Systems)
  - We do have some “little starts”, i.e. individuals that within their professions do really well, even if they do much less well than the real superstars

Careers that shape the world
Thinking about superstars
• Technology plays a crucial role in the formation of superstars
  - Modern devices like CD/DVDs, television, internet, etc. multiply the size of the potential audience and the speed at which information (about players/performers) circulate.
  - Rosen (1981) reports that Elizabeth Billington (one of the greatest singers of all times, apparently) made an annual salary of around AUD 200000 (in current prices). She is a pale shadow besides the great opera singers of our times (Pavarotti, Dominguez). The difference between her and them? Television, radio, and DVD players

Thinking about superstars
• What is the impact of salary caps?
  - Applied in NRL, AFL, but also MSL (US) and NBA (US), just to mention a few.
  - Intuitively, a salary cap should prevent the formation of superstars
  - However, this is true if
    (i) there are no exceptions to the cap (while instead it is the case of the MSL, so that David Beckham can earn something around 6.5 million USD against a league average of 171,000) and
    (ii) the cap applies to all leagues in the profession (i.e. if the Italian soccer league imposes a cap and the German one does not, then the superstars will migrate from Italy to Germany) and we would still have superstars in European soccer

Thank you very much for your attention.
I will be happy to answer any questions