Berri

Chapter 1

It’s Just Supply and Demand

# Objectives

* To appreciate the importance of math in sports economics by applying the Marshallian Method.
* To understand the fundamentals and the contributing variables of the Marshallian Cross, the standard supply and demand model.
* To differentiate between deductive reasoning and inductive reasoning and to understand when it is appropriate to use each methodology and how the two methods work in tandem.

# Outline

1. Chapter objectives
2. In sports, perception and reality don’t always match
3. The Marshallian Method
4. Marshall and the demand curve
   1. Use mathematics as a shorthand language till your model yields conclusions.
   2. Translate into English and illustrate by examples that are important in real life
5. Just a matter of time
6. The Marshallian Cross
7. What determines ticket prices?
8. “The Decision” teaches us how market impediments have unintended consequences History of the NPF History of the NPF
9. What is the “right” price?
10. The many lessons “The Decision” teaches
11. Deductive versus inductive reasoning

# Teaching Tips

## In sports, perception and reality don’t always match

### Creating Student Interest

* Since this will, in many cases, begin the course, start by asking all students to tell about their sports interests. What sports have they played, and what teams do they follow? Alternatively, consider asking students to name an economic issue pertaining to sports. Use the topics they bring up such as stadium funding, player salaries and ticket prices to identify areas of the sports economics literature. Point out that economic theory and empirical methods better inform the discussion.

### Presenting the Material

*Presenting the Material*Highlight the history of sports and the transition from being a leisure good of the wealthy to one consumed by all classes. Because sports are so popular, many people have opinions about sports, such as the relationship between ticket prices and players’ pay. As economists, we have tools to analyze these thoughts for accuracy. Emphasize the use of empirical methods to test otherwise purely theoretical sports economics hypotheses. (e.g. Did the salary cap help or hurt the NFL as a sport?)

## The Marshallian Method

### Creating Student Interest

* Ask the students to name a figure from history and explain what they learned from him or her. Is it important to learn from those who went before us?

### Presenting the Material

* This section presents a good opportunity to introduce some of the key people of economic thought and to convey the notion that the study of sports economics is derived from the basic principles of the discipline. In our study of sports, we need to stand on the shoulders of these great thinkers who went before us. This course will require students to interpret many numbers and formulae. The Marshallian Method illustrates the importance of math as a tool to help us understand what we observe.

## Marshall and the demand curve

### Creating Student Interest

* Ask a couple of students to name something that they buy frequently. Ask them what would happen if the price of this item doubled. What other factors would influence what they buy and how much they buy?

### Presenting the Material

* Using the answers given by the students, translate this information into a downward-sloping demand curve. Emphasize that *ceteris paribus*, the demand curve represents the relationship between own price and quantity demanded based on a person’s decisions about what is best for them, given their preferences, prices and income. Show that the demand curve can also be written as an equation. After the inverse relationship between price and quantity is understood, transition into the other factors that influence demand: population, income, and quality. Explain how these elements are present in the demand for sports as well. Review how these elements shift the demand curve.

## Just a matter of time

### Creating Student Interest

* If possible, bring a baseball card to show your class. Ask them what expenses the card manufacturer had in producing the card. Ask them the retail price of baseball cards at a store. Then ask: if the price of the cards doubled, would the manufacturer have an incentive to produce more cards?

### Presenting the Material

* Using the answers by the students, construct an upward-sloping supply curve. Show how this can be written as an equation. Describe the Law of Supply. Using the Honus Wagner example, show what a fixed supply curve looks like. Emphasize that the supply curve is the upward sloping part of the Marginal (unit) cost of production curve of the firm.

## The Marshallian Cross

### Creating Student Interest

* Ask the students if anyone ever owned a replica jersey of a professional athlete. Which player, and why that player? Have them think about whether they were alone in buying that type of jersey or if other people did so as well. Ask them which NFL and NBA players’ jerseys would sell the most.

### Presenting the Material

* The buying and selling of a jersey bring together buyers and sellers. Using the Tim Tebow jersey example, review what a market looks like using a Marshallian supply and demand graph. Continue this example and show the shift in supply that would occur if both Reebok and Nike sold his jersey. Emphasize the importance of finding the equilibrium price and quantity using supply and demand.

## What determines ticket prices?

### Creating Student Interest

* With a show of hands, take a survey of the class’s opinions about an important question in sports economics: do tickets to a sporting event cost a lot because of players’ salaries, or are players paid high salaries because of the high ticket prices?

### Presenting the Material

* Using a fixed supply curve, such as that shown in Figure 1.3, illustrate how ticket prices for a team can be found by finding the equilibrium. Next, show how an increase in demand will increase ticket prices. Mention that since this is demand driven and not cost driven, the students who said that players are paid high salaries because of the high price of tickets were right.

## “The Decision” teaches us how market impediments have unintended consequences

### Creating Student Interest

* If possible, show a clip from YouTube of LeBron James announcing his decision to take his talents to South Beach. Ask the students why they think he made this choice and if they think he made a good decision. Would they make the same choice? Ask if a star high school athlete deciding on which college to attend would in any way be similar to what James faced.

### Presenting the Material

* Tie together Table 1.1 with Figure 1.7 by illustrating how a salary cap limits the market’s ability to reach an equilibrium. With pay limited by external forces, discuss the non-price competition teams faced in trying to sign James. See if the students can describe non-price competition faced by colleges in recruiting athletes. Be careful to point out that you are assuming a competitive market for players. In fact the market for players’s is not competitive and you have a few buyers facing several different sellers (players).

# History of the NPF History of the NPF

## What is the “right” price?

### Creating Student Interest

* When LeBron James moved to Miami, he was paid $14.5 million that next season. Ask your students if he was underpaid. Was he exploited by the NBA? How does society justify paying an athlete that much money? Is his salary an indication of the values of our society? Why or why not?

### Presenting the Material

* The field of sports is ripe for opinion. Sports radio seemingly exists to give opinions about athletes and what teams should or shouldn’t do. Discuss the difference between positive economics and normative economics. Point out to the students how easy it is to slip from positive to normative. The study of sports economics tries to remain in the positive realm and objectively describe what exists.

## The many lessons “The Decision” teaches

### Creating Student Interest

* Let the students know that understanding markets can also help us understand other aspects of sports: profit maximization, competitive balance, player salaries, player productivity and labor markets, discrimination based on race and gender, college sports, publicly owned venues, and measuring player performance.

### Presenting the Material

* This section is a preview of the topics covered in the rest of the text. You might want to note how many of the topics are interrelated and can affect one another.

## Deductive versus inductive reasoning

### Creating Student Interest

* The character of Sherlock Holmes was famous for using deductive reasoning. Imagine you were Sherlock Holmes; how would you deduce that LeBron James would leave for Miami?

### Presenting the Material

* Aside from differentiating between deductive and inductive reasoning, it is important to point out that economics is a world of logic and empirical facts -not one of merely opinion.

## Common Student Struggles

Most students will have been exposed to supply and demand in their principles of economics courses. For some, it will have been several semesters since they last worked with the model. As a result, many students will need more than just a casual refresher of the variables that affect the demand and supply curves. How the curves shift and that shape, in the case of the fixed supply curve, will need to be reviewed. A mastery of supply and demand will pay off for students as the course progresses.

Talking about sports and studying sports are two different things. Some students will need to understand that economic models and theories will be used heavily to understand what we observe in the sports world. Conversely, some students will see Section 1.4 and the mention of OPS+ and wonder if they’ve gotten in over their head. Those students need to be reassured that there will be several productivity measurements interspersed in the text but that they are included simply as another tool to help us understand what we observe in the sports world.

During the discussion of topics in class, students may slip into normative analysis. That is natural because that is what they are exposed to in sports broadcasts. Draw them back toward positive analysis to explore the world we observe.

# Additional Resources

Berri, D., Schmidt, M., & Brook, S. (2006). *The wages of wins: Taking measure of the many myths in modern sport.* Palo Alto, CA: Stanford University Press*.*

Drayer, J., Shapiro, S. L., & Lee, S. (2012). Dynamic ticket pricing in sport: An agenda for research and practice. *Sport Marketing Quarterly*, *21* (3), 184–194.

Harrington, D. E. (2012). Uncapping ticket markets. *Regulation, 33*(3).

LeBron James Makes His Decision: Miami: <https://www.youtube.com/watch?v=RTeCc8jy7FI>

Lewis, M. (2004). *Moneyball: The art of winning an unfair game*. New York: W.W. Norton.

Marshall, A. (1890). *Principles of economics* (8th ed.).London: Macmillan.

NBA Player Salaries: <http://www.espn.com/nba/salaries>

“The Original Decision” Shaq to LA: <https://www.youtube.com/watch?v=-Fak_wv3uoM>

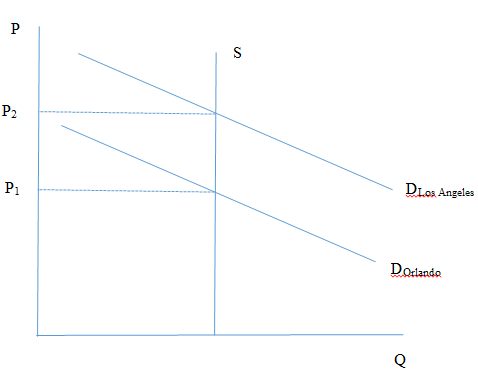
Veblen, T. (1899). *The theory of the leisure class*. New York: Macmillan.

# Handout 1-1

Date\_\_\_\_\_\_\_\_\_  Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Class\_\_\_\_\_\_\_\_ Professor\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Years before LeBron James left Cleveland for Miami, Shaquille O’Neal left Orlando for Los Angeles. In 1996, Shaq turned down a seven-year, $119 million deal to go play for the Lakers. Using a Marshallian Cross, analyze why O’Neal left Orlando. (Hint: use two demand curves, one for Orlando and one for Los Angeles.) Why would there be a difference in the demand curves?

Answer: The Lakers were able to offer O’Neal more money by manipulating their roster to create available money under the salary cap. The Lakers play in a much larger market than Orlando, and so their demand curve is greater than that of Orlando. This demand curve is reflected in the team’s willingness to pay a higher salary for a star player. But as we’ll see in Chapter 2, a larger market does not always mean a larger demand.



# Handout 1-2

Date\_\_\_\_\_\_\_\_\_  Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Class\_\_\_\_\_\_\_\_ Professor\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Each year before the Super Bowl, it seems there are always news reports about how much scalpers are getting paid for tickets to the game. Use a Marshallian Cross to analyze this market. How does the concept of a price ceiling help describe the market for Super Bowl tickets? What role do scalpers play in restoring the market to equilibrium?

Answer: The concept is similar to that seen in Figure 1.7. If the price initially offered for tickets by the NFL is too low, then a price ceiling is created. In this case, there is a fixed supply of tickets to the game. Scalpers (or firms like Stubhub) will offer tickets at prices higher than the initial price. As the price rises, the number of people willing to buy tickets decreases, until the market equilibrium is found. Thus, scalpers help the market move to an equilibrium.

