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Monopoly and Monopsony Power in a Market for Mud

This article describes an unusual market I use in my intermediate microeconomics courses to illustrate characteristics of monopoly and monopsony power. For over sixty years the Lena Blackburne Rubbing Mud (LBRM) company has been the sole supplier of mud taken from a Delaware River tributary that is applied to all baseballs used by Major League Baseball (MLB) teams. The unique quality of the mud removes the shine and slickness of new baseballs. Students must explain why LBRM is or is not a monopoly and recognize the source of MLB's monopsony power.

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1. Introduction

> *A monopoly is an enterprise that is the only seller of a good or service… Before and during the period of the classical economics (roughly 1776–1850), most people believed that… [the] only monopolies that could persist… were those that got the government to exclude rivals… Even today, most important enduring monopolies or near monopolies in the United States rest on government policies…Monopolies that exist independent of government support are likely to be due to smallness of markets (the only druggist in town) or to rest on temporary leadership in innovation…(Stigler)*

Although most students in my intermediate economics courses understand the graphical analysis of monopoly and the impact of monopoly power on economic welfare, it is a challenge to find actual examples of monopoly power that engage their interest.[1] Although dominant firms in many markets have some degree of monopoly power, the number of "pure" monopolies – sole providers of a good or service that have no close substitutes - are rare. Many firms cited as examples in textbooks—the U.S. Post Office and public utilities, for example—are less than inspiring.[2]

To demonstrate a more interesting example of monopoly, I use professional sports leagues and, in particular, Major League Baseball (MLB). I assign Walter Neale's (1964) classic article in which Neale argues that professional sports leagues, rather than individual teams, are properly viewed as industries and the leagues are natural monopolies.[3] I also use another baseball-related example. A small firm is the sole supplier to MLB of a product that has been used in every spring training, regular season, and post-season game for over sixty years. Rather than define this firm as a monopoly, I challenge my students to determine whether the firm is, or is not, a monopoly and to explain the basis for their decisions. Since MLB is the most important customer for the firm's product this example serves the additional purpose of demonstrating monopsony power.

In the absence of government policy (for example, patent or copyright protection), the persistence of monopoly power requires a barrier to entry into the firm's market.[4] The barrier may be due to economies of scale that result in a natural monopoly or the exclusive possession of an essential productive resource. This is the key issue I recommend my students use in order to determine whether Lena Blackburne Rubbing Mud (LBRM) is a true monopoly. (In this article I use LBRM refer to the company as well as the product it sells.) Since the 1950s, LBRM has been applied to every baseball used in every spring training, regular season, and postseason MLB game.

A. Ray Chapman

> [Carl] Mays was throwing with greater speed than usual…It was a fastball and it took a noticeable…shoot as it approached the inside part of the plate…The ball sailed directly toward Chapman's head but he made no effort to move…. (Sowell, 1989: 174)

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[1]The examples of monopoly and monopsony described in this article can also be adopted for principles of microeconomics courses.

[2]The U.S Postal Service does prove that monopoly power is no guarantee of long-run profit.

[3]Associate Supreme Court Justice Samuel Alito (2009) has written an excellent summary of the legal basis for MLB's exemption from antitrust laws.

[4]"A barrier to entry is an advantage of established sellers in an industry…to which established sellers can persistently raise their prices above competitive levels without attracting new firms to the industry" (McAfee, Milan, & Williams, 2004).They cite seven definitions of entry barriers, including this one.

On August 16, 1920, Ray Chapman, shortstop for the Cleveland Indians, became the first, and thus far only, major league player to die from an injury sustained during a regular season game.[5] Part of the blame for Chapman's fatal injury was attributed to the condition of baseballs used at the time. Balls were commonly scuffed and blackened by pitchers who used foreign substances to cause their pitches to move erratically. Chapman's injury led league officials to adopt a new rule in 1921: "the umpire shall inspect the baseballs and ensure that they are properly rubbed so that the gloss is removed." (Blitz, 2017) Current MLB's Official Rules retain this language (Major League Baseball, 2017).

For several years, umpires employed ad hoc methods to reduce glare and improve the grip on new baseballs. But applying ballfield dirt or mud would often result in scuffs and scratches. In 1938 an American League umpire, Harry Geisel, complained that the methods used to remove the slickness from baseballs were less than ideal: "…ballpark-made mud was often too coarse, thus putting marks on the cover of the baseball, which would allow pitchers to get their fingernails in those marks and make the ball travel in an unnatural path." (Francis, 2016: 36). Geisel's comments were overheard by the third base coach for the Philadelphia Athletics, who believed he might have a solution to the problem.

B. Lena Blackburne

Russel Aubry "Lena" Blackburne played professional baseball for several teams between 1910 and 1929. Blackburne also managed the Chicago White Sox (1928-29) and coached several other teams (Mueller, 2017). But Blackburne's influence on professional baseball has little to do with his record as a player, manager, or coach.

> Blackburne had discovered a special mud while wading in the Pennsauken Creek[6] … 'in those days…the outgoing tides purified the mud at the bottom of the creek… Two streams come together where I get the mud. That means it is filtered twice and is very fine.' After experimenting with the…mud…and adding a secret ingredient, he [Blackburne] later gave a can of it to Geisel to de-gloss the new baseballs. Soon afterward, every American League team was getting a supply…. (Francis, 2016: 36-37)

By the early 1950s, all teams in the National and American Leagues were applying LBRM to all new baseballs.[7] Following Blackburne's death in 1968, his business was taken over by John Haas, a long-time friend of Blackburne's. Haas subsequently passed the company on to his son-in-law, Burns Bintliff. Bintliff's son, Jim, took the company over from his father and is the current owner.

2. Is LBRM a Monopoly?

> We had considerable trouble at the start of our operation… in regard to supplying soil to rub baseballs. We first contacted a company in Alabama to supply mud but this… was…not satisfactory. We then made an arrangement with Lena Blackburne…We have continued to do this each year since and will continue in the future. Should this source not be available to use we will make an attempt to find someone else…where we could get the kind of mud that should be used to rub baseballs…if we did not do this systematically many pitchers would complain and we would have quite a problem. (Fleig, 1965)

[5]Ironically, Cleveland would earn its first World Series championship later that year.

[6]Pennsauken Creek is a tributary of the Delaware River in New Jersey, an area near Blackburne's hometown.

[7]Former American League umpire Bill Kinnamon commented on the special quality of Blackburne's rubbing mud: "There's something about this mud. I don't know how to explain it. It takes the shine off without getting the ball excessively dark." (Francis, 2016: 37)

Gathering mud from this Delaware River tributary requires one person with no more than a shovel and a few plastic containers – a procedure certainly not subject to scale economies - and there is no legal prohibition against other firms competing with mud or some similar substance that could be applied to baseballs. If LBRM is a true monopoly the entry barrier must be due to another factor: the possession of an essential resource. In fact, there is evidence that the source of Blackburne's rubbing mud may be unique.

Stories about the special qualities of Blackburne's mud led the New York Times to sponsor a mud sample analysis in 1982 by Kenneth Deffeyes, a professor of geology at Princeton University. Deffeyes reported that over 90 percent of the mud was finely ground quartz: "…there is very little clay in it…The overwhelming mineral in there is quartz, just like sand, only finer" (Francis, 2016: 38).

The location of the mud is treated by LBRM as a trade secret. Fearing potential competition Blackburne, Haas, and the Bintliff family have all refused to reveal the location of the mud they harvest. But at least one reporter was allowed to follow Jim Bintliff on a mud gathering trip and it would not be difficult for an enterprising interloper with his or her own buckets and shovel to discover the mud's source – if the potential reward were great enough (Miller, 2012).

But Jim Bintliff has suggested that the effort would not be worth it:

> I don't make much money from this…my raw material costs me nothing and the supply will last forever. I wish I could raise my prices in proportion to what the ballplayers get in salaries. But the traffic would not bear it. I am in this for the thrill. (Francis, 2016: 38)

In 2009, Bintliff claimed that LBRM cleared about $20,000 in profit—not much potential reward for a late arrival to the mud market (Blitz, 2017).

Although LBRM has added to its customer base (including minor league baseball and football teams), its primary buyer has always been MLB.[8] Bintliff's claim that "the traffic would not bear it" undoubtedly refers to MLB. Surely, MLB can afford to pay more for a substance used to treat every baseball used in every game. The Bintliff family has long faced a dilemma: if it were successful in negotiating higher prices and earning a greater return from selling its rubbing mud, it would invite competitors to discover LBRM's source or to develop a substitute with similar qualities.

After discussing this situation with my students, they understand why the unique qualities of LBRM have not been enough to result in an effective entry barrier: the Pennsauken Creek is a common property resource. As Jim Bintliff explained: the location of rubbing mud is "below the high tide line, so nobody owns the property" (Stoeckert, 2011).

3. Is Major League Baseball a Monopsony?

> A pure monopsony is a market in which there is a single buyer of a good, service or resource. Instances of pure monopsony are rare.
>
> Much more common than pure monopsony are markets with only a few firms competing among themselves as buyers, so that each firm has some monopsony power…A buyer with monopsony power…can purchase a good at a price below marginal value. The extent to which price is marked down below marginal value depends on the elasticity

[8]Individual consumers can buy the mud from the company's web site. I purchased a ½ pound container that I show to my students

of supply facing the buyer. (Pindyck & Rubinfeld, 2018: 376)

Monopsony power is most commonly found in labor markets; for example, a large factory in a small community that is the dominant employer (Furman & Krueger, 2016; Ozimek, 2014; Steinbaum, 2017). Although LBRM customers now include minor league and collegiate baseball teams and even some National Football League teams, MLB remains the primary buyer and, therefore, wields considerable monopsony power.[9]

As remarkable as the evolution of the market for rubbing mud is MLB's sustained dependence on a family-run business that has relied on several generations of Bintliffs to supply a product that if it were not provided would create, as Fred Fleig (1965) suggests, "quite a problem"; what if the next generation of the Bintliff family decided to pursue a more rewarding line of business?

There have been recent signs that MLB officials are concerned that LBRM may eventually cease to supply rubbing mud, when the financial or psychic reward is insufficient to motivate a successor to Bintliff or one of his family members (Hurley, 2016; Mueller, 2017)

> …recently, Major League Baseball asked Rawlings…to come up with a way to make the balls more tacky right out of the box…Rawlings executive Vice President Mike Thompson has stated 'We think we're close now. We're just waiting for MLB to give us the go-ahead on when they want it.'[10] (Lovitt, 2014)

The sale of Rawlings to MLB and Seidler Equity Partners in 2018 (Armental, 2018) reinforced the belief of some analysts that MLB had begun to plan for the end of its reliance on LBRM (Blitz, 2017; Smith, 2017).

4. Conclusion

My intermediate microeconomics students respond positively to the examples of monopoly and monopsony power described in this article. Rather than learn from my lectures and textbook definitions they are required to engage in active learning: to determine for themselves whether and the degree to which LBRM is a monopoly and MLB a monopsony. The markets described are basic enough to be adopted by instructors of principles of microeconomics courses. LBRM can also be analyzed using Michael Porter's "five competitive forces model": competition from existing firms; the threat from potential entrants into its market; competition from substitutes; the bargaining power of buyers and the bargaining power of suppliers (Porter, 1979). An Appendix to this article lists questions that my students ask, or are asked to address, regarding this market.

[9]Applying rubbing mud to footballs makes them easier to grip and throw.

[10]The Rawlings Sporting Goods Company, Inc. is a manufacturer of sporting goods equipment and the official supplier of baseballs to MLB.

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Appendix

1. George Stigler: "Even today, most important enduring monopolies or near monopolies in the United States rest on government policies…" Section 2 of the Sherman Antitrust Act passed by Congress in 1890 states: "Every person who shall monopolize, or attempt to monopolize, or combine or conspire with any other person or persons, to monopolize any part of the trade or commerce among the several States, or with foreign nations, shall be deemed guilty of a felony." Why would government policies be used to establish or protect monopolies while the Sherman Act considers attempts to monopolize "trade or commerce" to be illegal?

2. Is LBRM a pure monopoly? Explain.

3. LBRM owner Jim Bintliff: "I don't make much money from this… my raw material costs me nothing and the supply will last forever. I wish I could raise my prices in proportion to what the ballplayers get in salaries. But the traffic would not bear it." Explain why Bintliff believes "the traffic would not bear it."

4. Why is the Pennsauken Creek a common property resource?

5. With regard to LBRM, is MLB a pure monopsonist? Explain.

6 "A buyer with monopsony power…can purchase a good at a price below marginal value. The extent to which price is marked down below marginal value depends on the elasticity of supply facing the buyer." Explain what is meant by "marginal value."

7. How does the "elasticity of supply facing the buyer" affect the buyer's monopsony power?

8. Explain why analysts interpreted the sale of the Rawlings Sporting Goods Company to MLB and Seidler Equity Partners in 2018 as evidence that MLB planned to end its reliance on LBRM.

9. Was the acquisition of the Rawlings Sporting Good Company by MLB a horizontal merger?

10. How likely is it that the acquisition of the Rawlings Sporting Good Company by MLB would invite scrutiny by the U.S. Department of Justice or the Federal Trade Commission for violating Section 2 of the Sherman Antitrust Act? (refer to FAQ #1)

11. "A barrier to entry is an advantage of established sellers in an industry…to which established sellers can persistently raise their prices above competitive levels without attracting new firms to the industry" (McAfee, Milan, & Williams, 2017).Use this definition to evaluate the effectiveness of the barrier to entry into the market for LBRM.

12. Explain why monopsony power is more often found in labor markets than in markets for goods and services.