Imperfect Competition

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A natural monopoly is a monopoly with high fixed costs and low marginal costs. A barrier to entry occurs due to the natural monopoly's high fixed costs. Like any other firm, a natural monopoly maximizes its profits by setting quantity at the point where its marginal costs curve intersects its marginal revenue curve. Since there are no competitors in the market for the good, the natural monopoly uses its market power to earn a large economic profit by setting its profit-maximizing price above what a perfectly competitive firm would charge and sells a quantity below a perfectly competitive firm's level of output. Firms operating in a duopoly—a market where there are two firms selling identical products—are interdependent, meaning their profit depends on the actions of the other firm in the market. Such firms would first try to collude to set a price equal to the monopoly price, but then would have incentives to cheat and choose their dominant strategy to try to make a larger economic profit, resulting in overproduction and a price lower than the monopoly price.

The article, "Florida Customer Sues Sirius XM Radio on Pricing," by Grant McCool and Franklin Paul, illustrates the concepts of natural monopolies and duopolies as firms operating in a duopoly (Sirius and XM) merge to become a natural monopoly in order to gain power and set the monopoly price rather than the lower price that would result from competition in a duopoly. The merger proved to be beneficial to the company in reaching a monopoly outcome and earning a large economic profit.

The only two U.S. satellite radio companies, Sirius and XM Satellite Radio, originally operating in a duopoly, have recently merged into one natural monopoly with strong market power called Sirius XM Radio. Barriers to entry due to high fixed costs arise from launching a satellite

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into space (and any other high costs associated with establishing a nationwide satellite radio service), thus allowing Sirius XM to deter entry by competing firms and to continue operating as a natural monopoly. In the article, the authors point out that monthly rates for satellite radio have increased by about 30 percent for some customers with multiple accounts. Before the merger, the two companies were operating in a duopoly. Even though they would try to collude in quantity produced to set the price of satellite radio at the natural monopoly price, ultimately, due to incentives to cheat, the resulting price was lower than a monopoly's price. Now the company can set the higher monopoly price without needing to cheat due to its market power. Carl Blessing, a customer of the new Sirius XM Radio, is suing the company for anti-competitive pricing and abuse of its market power. While the new Sirius XM agreed with the government to keep its $13/month core rate unchanged and practice their original duopoly pricing (setting price between the perfectly competitive price and monopoly price), the company has still increased fees ranging from additional fees for multiple subscriptions to additional royalty payments for musicians and companies for the use of their music. In all, McCool and Paul point out that Sirius XM is now a natural monopoly that is using its power to raise prices for its satellite radio users. Whether or not the court system decides to regulate Sirius XM's anti-competitive natural monopoly practice will only be known in the future.

Figure 1 below shows the price and quantity of Sirius XM as a natural monopoly compared to the price and quantity it would set if it were still operating in a duopoly. It should be no surprise that the new price of Sirius XM is higher (about 30 percent) than the original duopoly price as there is no competition or incentive to cheat, either of which would drive the price down. As the only supplier of satellite radio, the company is a price maker and set its price on the demand curve to maximize its profits at quantity where its marginal revenue curve intersects its marginal cost curve. ●

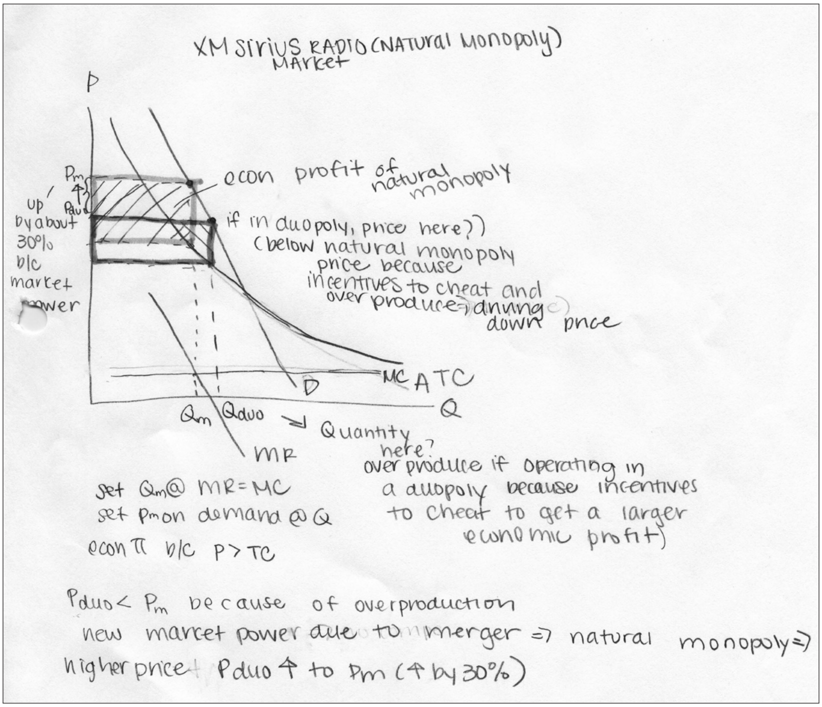

Figure 1: *Sirius XM's price and quantity as natural monopoly compared to duopoly*

Bibliography

"Florida customer sues Sirius XM Radio on pricing." Thomson Reuters 2009. http://www.reuters.com/assets/print?aid=USN0713073020091207 (accessed December 8, 2009).