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| **EC1100 Microeconomics: Monopoly**  **With Paul Tilley** | | |
|  | **Learning Objectives:** | | |
|  | | At the end of this unit you should be able to:   * Define a monopoly in context of the size of market and the number of close substitutes available for the product * Explain how monopolies come into existence * Understand how the profit-maximization output and price is determined for a monopolist * Explain four grounds on which monopolies can be criticized * Explain three grounds on which monopolies can be defended * Discuss ways that governments can change the behaviour of monopolies | | |
|  | | **Learning Materials:** | | |
|  | | * Chapter 10  - Principles of Microeconomics | | |
|  | | **Overview of this Unit** | | |
|  | | In this unit we will move to the opposite end of the market structure spectrum and study the Monopoly. A Monopoly exists when a firm in the industry is the sole supplier that provides any and all of the market supply to a market.  We will explore why and how monopolies come into existence, their cost structures, and the good and the bad things about them. | | |

EC1100 Microeconomics - PT (CL) - Chapter 10: The Monopoly.  Monopoly -    How Monopolies Come into Existence

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| **Chapter 10: The Monopoly - Topic 1: How Monopolies Come Into Existence** |
| A monopoly is defined in the context of market size and the number of close substitutes available for the product.   A firm is said to be a monopoly when it is the only firm that supplies a particular product to a market and that product has no close substitutes.  Obviously, a firm in such a position has a great deal of power over quantity and price.   So, in a free market how can this come about?  There are several reasons.  Most of them can be summarized in the concept of **Barriers to Entry**.   The concept of Barriers to entry simply means that it is very difficult for other firms to break into or enter this market.   This can occur for a number of reasons:  **Technical barriers** If a company is lucky enough to be the only one to know how to make a particular product because of some technical breakthrough that it has made, then competitors would be frozen out of the market simply because they do not know how to imitate the process. Imagine that your company has found a 'simple' method of creating nuclear fusion. (Nuclear fusion is the way energy is made on the sun and, as of yet, no method has been found to economically harness the potential of fusion). Countries, companies, and people all over the world would love to access this limitless, and environmentally friendly, power source. Your company could command a high price for this process because you are the only ones who know how to do it!  **Legal barriers** In order to spur on entrepreneurship and encourage research and development, most countries of the world legally protect something called intellectual property. Intellectual property includes things like Patents on new products, Copyrights, Licenses and Trademarks. These protect the ownership of a product and ensure nobody else copies and profits from it. By doing this, it ensures that developers benefit from their efforts. Legal barriers also encourage others to innovate and be creative – and that is good for society! The downside though is that these same protections create monopoly situations, often with limited supply, and higher prices.  **Economic barriers -** How much do you think it would be to start a successful car company, compete with design capability, factories, distribution networks, and service contracts? No doubt, it would be expensive even for the richest person. Such economic barriers are caused because of sheer size requirements of certain industries such as automotive production. They require large economies of scale that are often very difficult to achieve. |

EC1100 Microeconomics - PT (CL) - Chapter 10: The Monopoly.  Monopoly -    Natural Monopolies

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| **Chapter 10: The Monopoly - Topic 2: Natural Monopolies** |
| **The CBC**  Firms that need to be large in order to overcome barriers to entry into a given market or industry. Firms/industries that are Natural Monopolies need to be large enough so that they can finance their high start-up costs, maximize their revenues and minimize their expenses. In Canada with its large size and small population natural monopolies are more commonplace than in the United States, however technology is eroding their presence. The Canadian Broadcasting Corporation, for example, was a natural monopoly when it became the national broadcaster over half a century ago. It had to be so big to cover the landmass that it was the only broadcaster in some areas for years. The advent of Satellite TV has brought competitors and eroded the need for the national broadcaster — defining its reason to exist has become one of the biggest challenges of the CBC today. |

EC1100 Microeconomics - PT (CL) - Chapter 10: The Monopoly.  Monopoly -    Features of a Monopoly

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| **Chapter 10: The Monopoly - Topic 3: Features of a Monopoly** |
| A monopoly is a powerful force however it is still restrained by the laws of economics. It is a price maker in the sense that it can charge whatever price it wants for its products (provided it is not regulated by governments) however like all firms/industries as its prices rise, the demand for its products will decline.  Unlike purely competitive industries, a monopolist's marginal revenue is not equal to its average revenue. Because monopolists are the only supplier and therefore the industry that like all industries faces a downward sloping demand curve, if it sells one more unit of product it will make additional revenue however it will be forced to drop its prices in order to see that extra unit. Not only will it drop its price on the last unit sold, all units sold will be forced to sell at a reduced price.  Lucky for us, the consumer, monopolies are constrained in the price that they can charge if they want to maximize their profits. Like competitive industries they too will set prices that offer them the maximum profitability.   |  |  | | --- | --- | | **Monopoly** | | | **Number of Sellers** | **One** | | **Type of Product** | **Unique** | | **Ease of Market entry and exit** | **Very Difficult** | | **Sellers control over Price** | **Substantial** | | **Example Industries** | **Power companies** | |

EC1100 Microeconomics - PT (CL) - Chapter 10: The Monopoly.  Monopoly -    Disadvantages of a Monopoly

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| **Chapter 10: The Monopoly - Topic 4: - Disadvantages of a Monopoly** |
| So far, we have seen that Monopolies can be essential but often undesirable in a society.  Monopolies are often criticized most for being:  **Able to make economic profits indefinitely -** With no competitors to help force down prices monopolies can operate in a profit maximizing mode indefinitely.  **Both productively and allocatively inefficient** Being Productively efficient implies operating at the lowest possible cost.  Monopolies do not have to lower costs of production to their lowest possible cost as long as they are satisfied with their current level of profits.  Being Allocatively efficient means allocating the products to the market in a timely way to meet consumer demand.  Monopolies are not concerned about competitors doing a better job at reaching the customer if there are no competitors.  **Producing less and charging a higher price than would occur in a competitive industry -** Monopolies have complete control over either the quantity or the price of the product they produce.  **Creating a more unequal distribution of income and wealth within society** Because of barriers to entry, people who are **lucky** enough to own the monopolies can reap the rewards of ownership indefinitely.  This can lead to inequalities in income and wealth in society. |

EC1100 Microeconomics - PT (CL) - Chapter 10: The Monopoly.  Monopoly -    Defending Monopolies

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| **Chapter 10: The Monopoly - Topic 5: Defending Monopolies** |
| So far we have also seen that monopolies can be essential at proving services that would otherwise not be provided.  Monopolies might:  **Capture large economies of scale in production -** because they are big enough and can capture all of the revenue in a given market, monopolies can minimize the overall cost of providing the service and ensuring sufficient resources to continue the service at a high level of operability.  **Engage in extensive research and development into new techniques of production and new products** Again because they are big enough and can capture all of the revenue in a given market monopolies can afford to invest in more and better research and development.  **Offer relatively good wages and working conditions for their employees** Because of their bigness, larger monopoly organizations have more money to spend on human resources. |

EC1100 Microeconomics - PT (CL) - Chapter 10: The Monopoly.  Monopoly -    Controlling a Monopolist

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| **Chapter 10: The Monopoly - Topic 6: Controlling a Monopolist** |
| We have seen that monopolies are not all that bad.  If society could reap the benefits of a monopoly while minimizing the negative aspects of monopolies then such moves would be to everyone's benefit.  The job of regulating monopolies falls to government.  Governments have several tools available to achieve the desired results including: Taxing the monopolist, dictating the **monopoly’s** pricing structure, or simply buying the monopoly (nationalization). |
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EC1100 Microeconomics - PT (CL) - Chapter 10: The Monopoly.  Monopoly -    Interactive Graph - Monopoly

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| **Chapter 10: The Monopoly: Interactive Graph - Monopoly** |
| **Graphing Exercise: Monopoly**  A pure monopoly is a firm that produces a product for which there are no close substitutes. Whether the source of the monopoly's unique status is the result of patents, control of a resource, or economies of scale, the monopoly essentially is the industry. The demand for its product is the same as the industry demand, and as such, is downward sloping. To sell additional output, the firm must lower the price. Further, if it cannot discriminate, this lower price applies to all units sold, not just the marginal unit. Marginal revenue must then be less than the price. A monopolist searches the demand curve for the price and quantity that maximizes its profits.  **Exploration: What is the profit-maximizing price and quantity for a non-discriminating pure monopolist?** |

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| The graph shows the demand, marginal revenue, and cost data for a non-discriminating pure monopolist. It is currently producing 60 units per month and charging a price of $250 each. Its total revenue, cost, and profit are shown in the box. To use the graph, click and drag the green triangle to change the firm's choice of output (and price). Click on the Show Profit/Loss for a graphical illustration of the profit or loss at the chosen output. Dragging up or down on the D label will change the elasticity of the demand curve; click Reset to restore all initial settings. |

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| **Self Quiz** | | |
| ***1.*** | Starting from the initial price and quantity, what happens to the firm's revenue as the firm lowers the price? What combination of quantity and price will maximize the firm's revenue? Note the value of marginal revenue over this range. | Show Answer |
| ***2.*** | What quantity and price will maximize the firm's profits? How much profit is attainable at this choice? Compare marginal revenue and marginal cost at alternative choices. | Show Answer |
| ***3.*** | Experiment on your own with different demand conditions. For a given demand curve, what rule for selecting price and output will always provide the firm with the greatest profits? | Show Answer |

**Source:** McGraw-Hill Ryerson, 2004.

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EC1100 Microeconomics - PT (CL) - Chapter 10: The Monopoly.  Monopoly -    Summary

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| **Chapter 10: The Monopoly - Summary** |
| In this unit we looked at the monopoly. A Monopoly exists when a firm is the industry it is the sole supplier that provides any and all of the market supply to a market.  There are legitimate reasons why monopolies exist in society and with government control monopolies can, at times be beneficial to our economy. |

EC1100 Microeconomics - PT (CL) - Chapter 10: The Monopoly.  Monopoly -    Suggested Problems

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| **Chapter 10: The Monopoly - Suggested Problems** |
| In order to reinforce what you have learned in this unit I suggest you review the following end-of chapter problems.  The following problems located in the text.  Once you have attempted this review  [Student Answer Key](http://highered.mcgraw-hill.com/sites/0070984050/student_view0/chapter10/answer_key.html).   * Chapter 10, 36A |