**Oligopoly**

**Features of an Oligopoly**

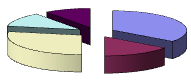


1. Number of Firms

Give an example of this.

2. Market Power (Concentration Ratio)

What degree of market power do the leading firms enjoy in an Oligopoly ?



|  |  |
| --- | --- |
| Others | |
| 10%  Suchard Nestle  12% 35%  Cadbury Mars | Nestle Mars Cadbury Suchard  Others |
| 28% 15% | |

1. What is the 3-firm concentration ratio in this market?

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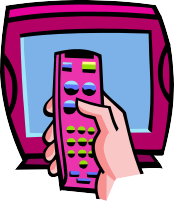
1. What do you understand by the term ’**Concentration Ratio?**'

Prices in an Oligopoly

1. How would you describe **prices** (prices of the different related brands) in an oligopoly?

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Nature of Competition

1. How do firms compete in an Oligopoly?

**Output**

1. What kind of **profits** would be earned in an Oligopoly?
2. How might one describe barriers to entry in this type of industry?
3. Give examples of different barriers to entry.





The Collusive Oligopoly

1. What is the difference between a non-collusive oligopoly and a collusive oligopoly?
2. Examples of how firms might collude.









If the collusive oligopoly is formal, then it is known as a **cartel1**. In many economies, cartels are illegal as they are considered not to be in the public interest. Where this is the case, firms often collude illegally, agreeing prices in private. If they do not do this, they often simply keep an eye on each other's prices and charge the same. Firms often agree to avoid competition and to stay away from price-wars.

A common form of unwritten collusion is **price leadership**. Usually, this is where firms charge the same price as that set by the largest firm, which dominates the industry. This is known as **dominant firm price leadership**. In some cases, the firm that is followed is not actually the largest, but is the one that has been the most dependable over time. This form is known as **barometric firm price leadership**.

1. What is the name given to a formal collusive oligopoly?
2. Why are cartels illegal in many countries?

1

1. How might firms collude illegally?
2. What is a common form of unwritten collusion?

### CHF

P1 Industry MC

**Q1** Industry MR

Industry D = AR

### Output

1. The above diagram shows the situation when a cartel is formed and it acts like a . Profits are maximised at Q1, where MC = MR. The cartel will therefore set a price of
2. Once the cartel has agreed the price, there are two options:





Problems with collusion

1. Collusion will be more likely to be successful if:















1. How might colluding firms cheat?
2. What might happen as result?

When considering whether to cheat, there are two main questions: How much can we get away with without inviting retaliation and if a price war does result, will we be the winners? The firm will consider different strategies and attempt to find the one that will best succeed in outwitting its opponents. The strategy that a firm adopts will be concerned not just with price, but also with advertising and product development. Economists use **game theory2** to examine these strategies.

2

**Game Theory**



* 1. In order to understand how firms may behave in a collusive and non-collusive oligopoly we can look at a concept known as ’**Game Theory**'

Consider the ’**Prisoner's Dilemma**' Exercise below.

* 1. Louis and Marcus have both been arrested for the same crime (burglary), but are been interviewed separately. They face the following alternatives.

If they both stay quiet and say nothing the court has enough evidence to convict them for two years each.

If one of them confesses and the other one

doesn't, the one who confesses will get five months and the one who doesn't will get ten years.

If they both confess they will both get four years.

* 1. Complete the table on the next page with the different outcomes. We assume that there is **no collusion** between the two prisoners.

Marcus’s Options

# Not Confess Confess

Louis’s

Options

# Not Confess

***Confess***

|  |  |
| --- | --- |
|  |  |
|  |  |

* 1. What is the **best** strategy to adopt if there is **no collusion**?
  2. What is the best strategy if there **is collusion** amongst the two prisoners?
  3. We will do a similar exercise, but this time with two firms operating in an oligopoly who are considering whether to charge a high price or a low price.

Look at the diagram on the following page and answer the questions. The figures in the table represent the profits that can be made if Firm A and Firm B charge a certain price.

Firm A

### Low Price

**High Price**

|  |  |
| --- | --- |
| **8m/***8m* | **15m/**5m |
| **5m/***15m* | **12m/**12m |

Firm B

*Low Price High Price*

* 1. What is the best possible strategy for Firm A?
  2. What is the risk associated with adopting this strategy?
  3. What is the best strategy for Firm A to adopt which allow it to maximize its minimum possible profit? (i.e. what is the safest strategy to adopt?)
  4. If Firm A and Firm B were to collude, what would be the best strategy and therefore the equilibrium position?
  5. According to the Neo-Classical Theory if Oligopoly there is **no collusion. What situation arises because of this?**
  6. What might happen in an oligopoly therefore if there is collusion?

*Beautiful Mind*

* 1. What the scene from a ’Beautiful Mind' and see if you can apply game

theory to explain what is taking place.

John

### 1Blond

**5 Brunettes**

|  |  |
| --- | --- |
|  |  |
|  |  |

4 Other College Students

## 1 Blond 5 Brunettes

* 1. What is the best strategy to adopt for John and the College Students to adopt if there is no collusion between them and why?

18 Why is it risky for either John or the other students to go for the blond?