**Best Uses:**

* Kinked demand curve: Oligopoly is central to the interdependence of firms and Kinked demand curve shows interdependence
* Kinked demand curve also shows price rigidity
* Note that collusion is simply shown with AR>AC with a direct reference that AR is an agreed price between competing firms and/or quantity supplied is restricted
* Collusion highlights the need for intervention by government to regulate markets to make sure they are competitive

***ED 16: Oligopoly***

## SYLLABUS REFERENCE 1.5

## Economics Models : Oligopoly

Syllabus Items: **74-77**

**Assumptions of the Model:**

1. **Small no of firms to 100 Firms in industry but dominated by few (< 10)**
2. **Preference for non price competition but it occurs**

* **Price competition: D = INelastic**
* **Non Price competition: D = Elastic**

#### Barriers to entry exist or barriers to growth EG oil, cars, large scale retailing

## The model suggests that:

1. **Small number to 100 of firms in industry**
2. **Higher prices than in PC**
3. **Resource Allocation is poor compared to PC**
4. **S/N profits in the long run**
5. **Reaction of rival firms determines prices and interdependence is a major issue for firms**

**oligopoly**

**Oligopoly-competitive model**



**Note to diagrams:**

**Look for the following points:**

1. **S/N exists where AR > AC**
2. **Max profit at MC = MR**
3. **Efficiency at lowest point of AC. Oligopoly not efficient e.g persuasive advertising**
4. **who sponsors "Champions League"? At what cost?**

**mc = ac**

**mc = ar**

**mc = mr**

**ar > ac**

**Equilibrium for oligopoly in SR and LR**

**CRx**

* X represents the number of largest firms
* CR4 of 80% would indicate 4 largest firms share 80% of market

**PC M (istic) O M**

**0% 50% 80% 100%**

**Concentration:**

**Low Med High**

***ED 16: Oligopoly***



**Oligopoly-less price competition**

**Price Rigidity model**

**Conclusions re Kinked Demand model:**

1. **Firms follow downward price changes (bc) but not upward price changes (ab). Why?**
2. **Price competition is avoided above B where demand is elastic (ab) i.e if price rises TR falls)**
3. **Price competition is evident however when price falls from B along (bc) but TR falls here also as (bc) is inelastic. However not to respond would see firm losing customers.**
4. **Firms tend not to follow upward price changes and price competition is more likely for price falls along (bc). This could represent a ‘price war’. All firms lose.**
5. **firms are ‘interdependent’ and watching the behaviour of others. This leads to Price rigidity. See diagram B point B**
6. **Results in non price competition**

* **Advertising/branding**
* **Promotions / free gift offers / stamps**
* **Product innovation**
* **After sales service/ reputation**
* **Marketing**

For Oligopoly:

1. Quality
2. Choice
3. Innovation e.g car industry, computer and hi tech product development is rapid
4. Economies of scale may be important: how many apples does Aldi purchase in one year? Does this give Aldi a cost advantage?
5. ‘Ryanair model’
6. ‘Aldi model’

Against Oligopoly:

* Price leaders may exist
* Cartels may occur in the short run
* Wasteful use of resources
* Price ‘rigidity’ / ‘stickiness’

1. non collusive oligopoly (kinked model)
2. collusive oligopoly

Notes:

**Note on diagrams A and B**:

* **ABC = AR /DEMAND CURVE**
* The kinked demand curve only applies if the firm thinks that rivals that will not follow price rises.
* Firm loses out on price changes. P1 is preferred
* This is an example of ‘non collusive oligopoly’.
* Diagram shows interdependence

**No**

**Do competitors follow price changes?**



**Yes**

***ED 16: Oligopoly***

**Oligopoly-less competition**

**Collusive Oligopoly[[1]](#footnote-1)- Collusive model**

**Note to diagrams:**

**Look for the following points:**

1. **S/N or economic profit exists where AR > AC**
2. **Max profit at MC = MR**
3. **Efficiency at lowest point of AC? Not in diagram C. Efficency is Not likely to occur!**

**mc = ac**

**mc = ar**

**mc =mr**

**ar > ac**

This P1 price could be “fixed” by the cartel as a minimum price for firms to follow.

This guarantees a certain level of profit

**How does collusion work?**

1. Dominant firms agree secretly to fix a lowest profit maximising price (P1 on diagram C). Firms can charge higher if their customer elasticity is inelastic enough.
2. Each firm has a quota of goods that they can sell ie this maintains market share so no firm loses customers
3. Problem: There is an incentive for firms to exceed their quotas to increase their own profits at the expense of the other members of the cartel or simply sell at a lower price.
4. Cartels are short term and break down because of 3 above

**Collusion:** can easily be drawn on the model as it is usually a price fixing agreement: see P1 in diagram C.

With keywork ‘collusion’ Google

* **Nintendo**
* **Apple**
* **Tchibo**

**Supernormal profits**



**evaluate**

Against oligopoly:

1. Price leaders may exist

e.g. ‘Intel’ model i.e in 2009 received a 1 billion euro fine for anti competitive actions in europe

1. Cartels may occur in the short run
2. Wasteful use of resources
3. Price ‘rigidity’ / ‘stickiness’

non collusive oligopoly (kinked model)

1. collusive oligopoly: can be **formal** or **tacit**. Collusion/ cartels extremely difficult to regulate.

For Oligopoly:

1. Quality
2. Choice
3. Innovation e.g car industry, computer and hi tech product development is rapid
4. Economies of scale may be important: how many apples does Aldi purchase in one year? Does this give Aldi a cost advantage?
5. ‘Ryanair model’
6. ‘Aldi model’

***ED 16: Oligopoly***

**Collusion+ game theory**

Read: Blink: pp **128-130**

The key point to take out of this 'game theory' concept is that firms are interdependent and 'price rigidity' may be the better option in terms of losing to an opponent! Firms have 2 alternatives: 1. Price competition (depends on elasticities) 2. Non price competition (see Blink **p131-132**)

See Figure 10.3 for a sample of game theory outcomes in Blink page 130.

**Oligopoly-less competition**

**Exam questions:**

**November 05 HL1**

1) (a) Explain the differences between monopolistic and oligopoly as market structures.

(b) Discuss the differences between a collusive and non collusive oligopoly.

**May 08 HL 1**

1) (a) Explain how a firm operating in an oligopolistic market might attempt to increase its market share.

(b) Evaluate the view that producers, and not consumers, are the main beneficiaries of oligopolistic market structures.

**Collusion:**

Only a short term practice and over time breaks down.

When is it likely?

* Small number of firms dominate industry e.g. **CR2 (80%)**
* Stable cost and demand conditions so that applied quotas are easy to monitor
* Member firms can easily monitor competitors so that rules of cartel are followed

**Price Leadership**

A common outcome in Oligopoly with high concentration is that in a CR4 (80%) situation with one dominant firm having 70% of the total market is

‘price leadership’ whereby other firms follow the price changes of the leading firm



**Non collusive/price rigidity**

**But firms will follow price falls**

**Collusive-fill in diagram**

**Note:**

1. **firms collude in this fashion without any illegal agreements**
2. **“Game Theory’ looks at possible responses of firms to their competitors**

**Task:**

**Use the collusion boxes above and decide the various options for the two contestants looking to win the 100,150 $ in the gameshow:**

**Video clip can be found in Utube list: 1.5**

1. read Blink and Dorton pp 121-123

   + Mc Gee pp 248-249 [↑](#footnote-ref-1)