Microeconomic Revision Essay (3) Oligopoly Pricing and Cartels

(a) Explain why interdependence between firms is a key feature of price and output decisions for firms within an oligopoly 20 marks

(b) Discuss the argument that producer cartels are inherently unstable and therefore should not be subject to regulation by the Competition Authorities 30 marks

An oligopoly is a market dominated by a few producers: each of which has some control over the market. There is no single theory of how firms determine price and output under conditions of oligopoly, but the industry is likely to exhibit the following features:

1. A relatively small number of large scale firms selling branded products - market concentration is high
2. There are significant entry barriers into the market in the long run which reduce the contestability of the market
3. Each firm within the market must take into account likely reactions of rivals to any change in its prices or other market decisions such as advertising spend and research & development decisions
4. Non-price competition of various forms is a frequent feature of oligopolistic markets

Pricing under oligopoly - the important of interdependence

What is interdependence? At its simplest, firms within the industry have to consider or predict the likely reactions of their rivals to their own pricing, output and investment strategies. This leads to uncertainty within the market.

Interdependence is not a feature of perfect competition (where individual firms are assumed to be price takers) or under conditions of monopoly - where a pure monopolist does not have any close rivals

The examiners will always reward references to real world examples of oligopoly - for example the pricing decisions of the major cigarette producers, suppliers of vitamins and other pharmaceuticals, telecommunications companies, national food retailers,

The key point to make is that there is no single theory of oligopoly equivalent to that of perfect competition or monopoly exists because the behaviour of oligopolistic firms is determined by the strategic reaction and behaviour of their rivals and these reactions will differ according to the market situation.

The kinked demand curve analysis is one attempt to model the interdependent nature of pricing between firms within an oligopoly.

The model assumes suppliers will not to follow a price increase (making demand elastic) but will follow a price cut (making demand relatively inelastic - since all firms have cut prices together). This gives rise to the concept of a kinked demand curve - whereby the profit maximising equilibrium price and output may be indeterminate (because of the gap in the MR curve).
The kinked demand curve model predicts relative price stability as a result of interdependence - even when the marginal costs of production change (shown above) - e.g. a rise in raw material prices or wages. The result is an increasing emphasis on non-price competition as a means of maintaining and increasing market share / market power.
Firms may decide to compete on the grounds of

Quality of product / product innovation
After Sales Service
Advertising and Marketing

The inherent uncertainty created by interdependence may also lead to implicit and explicit forms of collusion between suppliers in a form of a producer cartel

The kinked demand curve theory can be criticised on the basis of the realism of its assumptions about the likely behaviour of firms in the market. Alternative theories of pricing behaviour have been developed - including the expansion of research into Game Theory.

Game Theory: A branch of the subject that studies behavioural patterns and strategies - there are many cases in which economic decisions are made - often in situations of conflict - where one party's action induces a material reaction from others - pricing decisions by sellers in an oligopoly falls into this category

(b) Discuss the argument that producer cartels are inherently unstable and therefore should not be subject to regulation by the Competition Authorities

Define a producer cartel: Where producers agree to control market supply in order to influence the market price and move towards joint profit maximisation - indeed the price and output in the industry may tend towards the equilibrium under a pure monopoly.

Most price-fixing cartels are deemed to be illegal - there are very few legal price fixing agreements left in the UK and Europe.
The cartel price is agreed among the members of the cartel and market supply is allocated on the basis of a quota system. Although the cartel as a whole is maximising profits, the individual firm’s output quota is unlikely to be at their profit maximising point.

The cartel price is determined by the interaction of the MC for the industry and market demand / marginal revenue. The cartel price is agreed by members of the cartel - who must then decide how to allocate the total output among each firm.

Examiners will reward reference to actual examples of cartels / price-fixing arrangements both from the domestic and international economy.

- Net Book Agreement (finished in 1995)
- Over the counter pharmaceuticals (finished in 2001)
- Interest rate cartel maintained by the leading banks (ended in 1983)
- OPEC oil cartel
- The Coffee Export Cartel (which finally collapsed in the spring of 2001)
- The European Vitamin Cartel exposed by the EU Competition Authorities in November 2001
- Allegations of an implicit cartel among electrical goods retailers / car dealerships

Why is collusion between producers unstable?

The individual firm has an incentive to join a cartel and to co-operate with its rivals to raise prices and enjoy higher revenues and profits, but it also has an incentive to cheat its rivals, i.e. to shade (lower) prices to win market share above its cartel quota. The cartel price is above the profit-maximising price for the individual firm - if they can secretly increase output and discount prices, they stand to gain even higher net profits. Cheating on output agreements is a common feature of cartels - as game theory predicts will eventually happen.

Why else do cartels tend to collapse (eventually)?
Recession: Cartels come under pressure when demand falls during an economic slowdown or recession as this creates excess capacity in the industry - and individual members of the cartel will have an incentive to cut price and expand output to maintain revenues and profit.

New Firms: Cartels are also undermined by the entry of non-cartel firms into the industry - for example the emergence of online book retailers into the UK during the mid 1990s

Fines/Legal Action: The exposure of illegal price fixing by the Government or other regulators - leading to court action and fines on cartel members

So should Competition Authorities leave cartels alone given their instability?

Possible advantages of cartels:
Relative price stability for consumers
Higher profits feeding through into increased investment
Boost to export revenues for countries dependent on exporting primary commodities

The importance of market contestability
As with most questions on the economic welfare effects of market concentration / monopoly power, some reference to the contestability of the market needs to be mentioned. Even if existing (incumbent producers) are cooperating by limiting supply and keeping prices high - if the market is contestable, higher prices and profits and associated lack of economic efficiency may lead to new businesses entering the market (profits act as a signalling mechanism).

The case for intervention by the Competition Authorities
Higher prices lead to a loss of allocative efficiency
Limited competition damages productivity and economic growth in the long run
Consumer welfare is damaged
Higher prices reduce real living standard and reduce consumer choice
Cooperation / collusion is a denial of genuine competition
There is a case for some form of intervention because of the market failure that cartels create

How should the authorities intervene?
Most authorities intervene through fines. The European Competition Commission under Mario Monti has been particularly active in their respect in the last few years - but some doubt about whether fines are sufficient

Main alternative - measures to introduce new competition into markets through deregulation - particularly where statutory barriers to entry are reduced

Conclusion:
The Office of Fair Trading view on cartels is fairly clear!

“Cartels take money off their customers by rigging markets against them. The OFT will not hesitate to use its powers to unearth, stop and punish cartels. Firms that operate a cartel can now be fined up to 10% of their UK turnover for up to three years”

Problem is in finding sufficient information to be able to build a conclusive case that firms are engaging in anti-competitive behaviour - there are costs associated with investigating cartel behaviour.
Another problem is in putting a monetary value on the cost to the consumer of alleged cartel behaviour - requires some benchmark as to what might have happened in the market if the producer cartel had not been in place.

Cartels are inherently unstable but many can persist for many years without severe tension.