



Dominant Firms and some implications for economic welfare

by

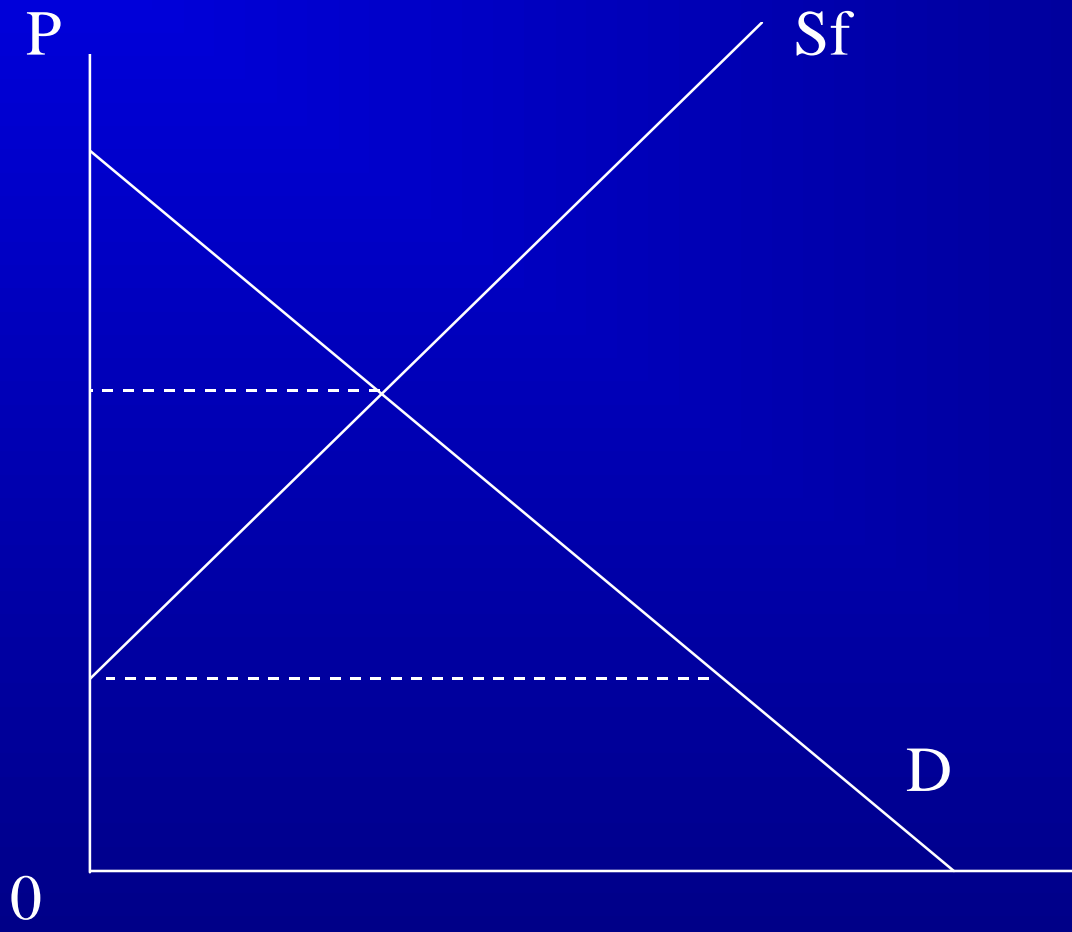
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The Dominant Firm

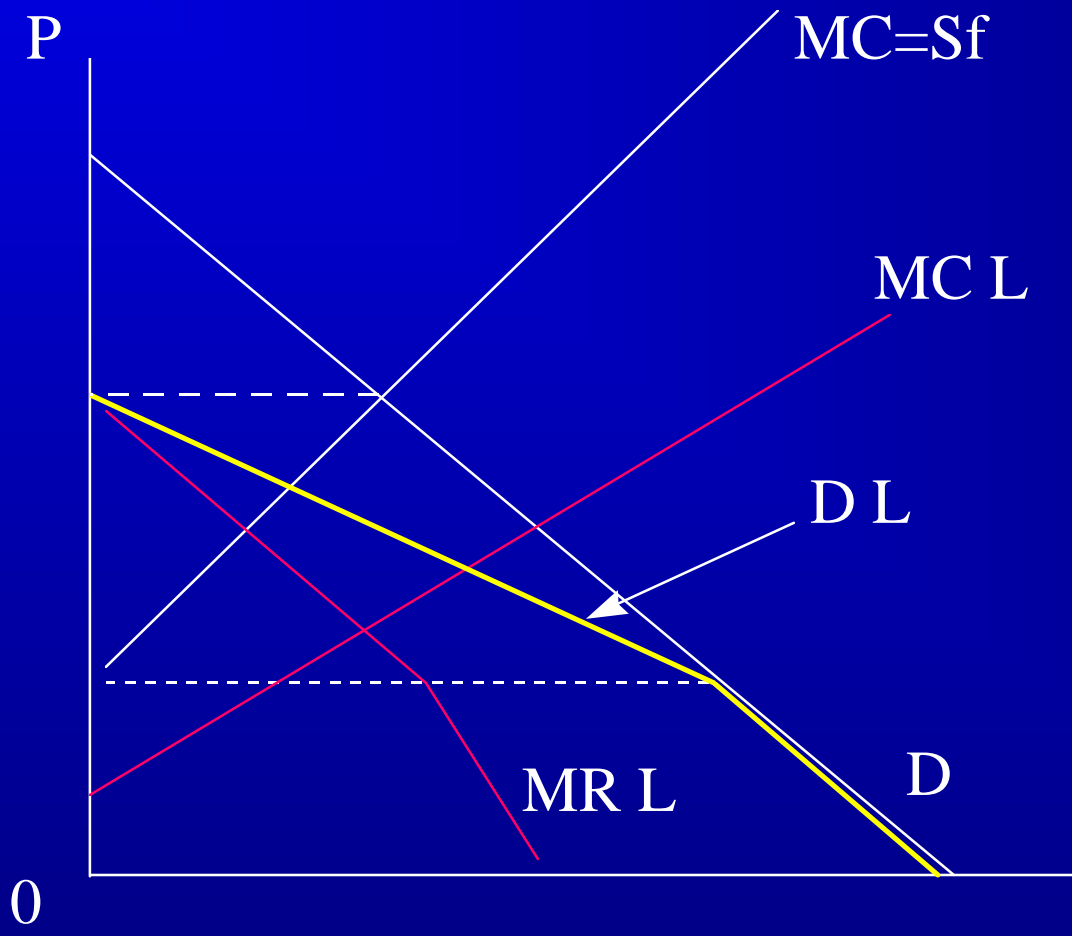
- ◆ Most industry structures are oligopolistic.
- ◆ Some firms dominate an industry. Others form the industry's competitive fringe.
- ◆ A dominant firm with full information about market demand and industry costs can set prices so that it earns economic profit whilst the passive fringe earns a normal rate of return.



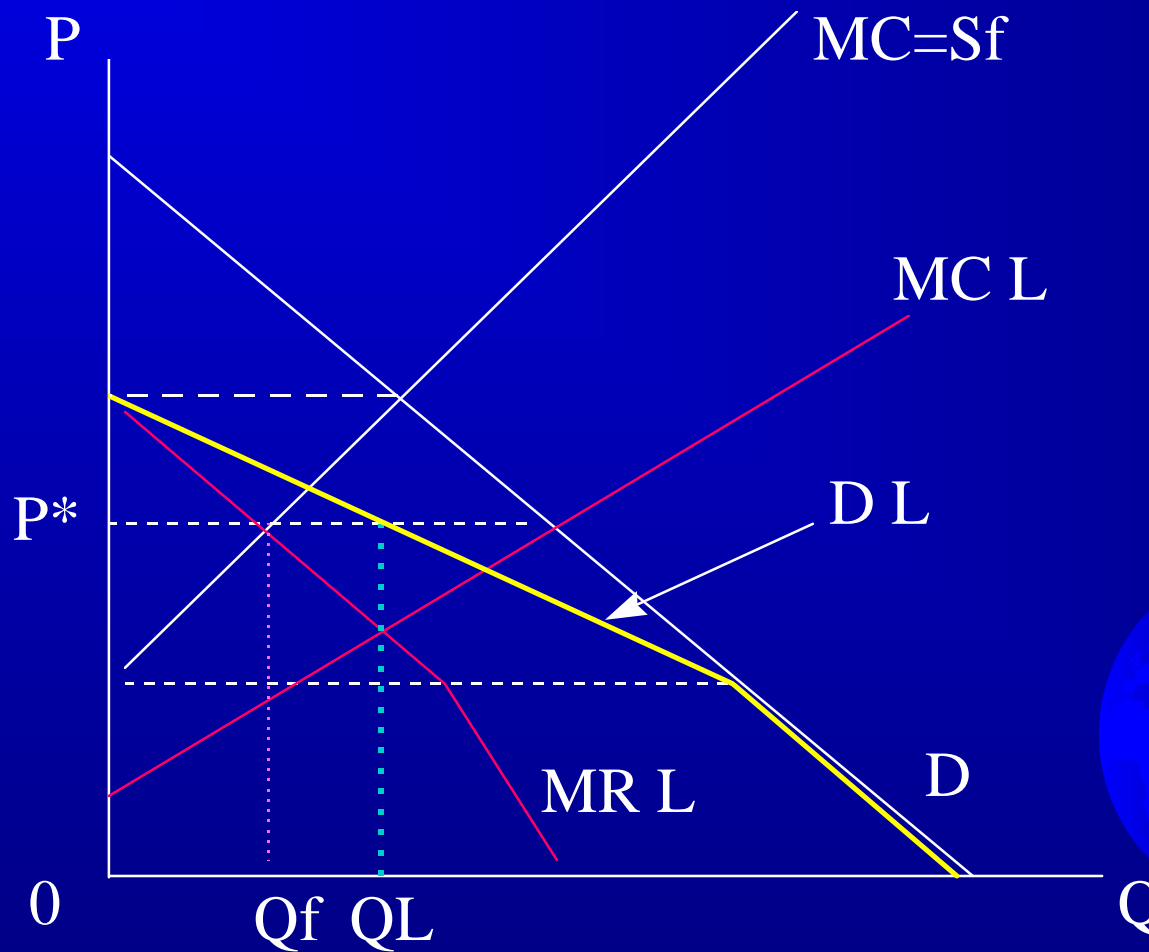
The Dominant Firm Model (1)



The Dominant Firm Model (2)

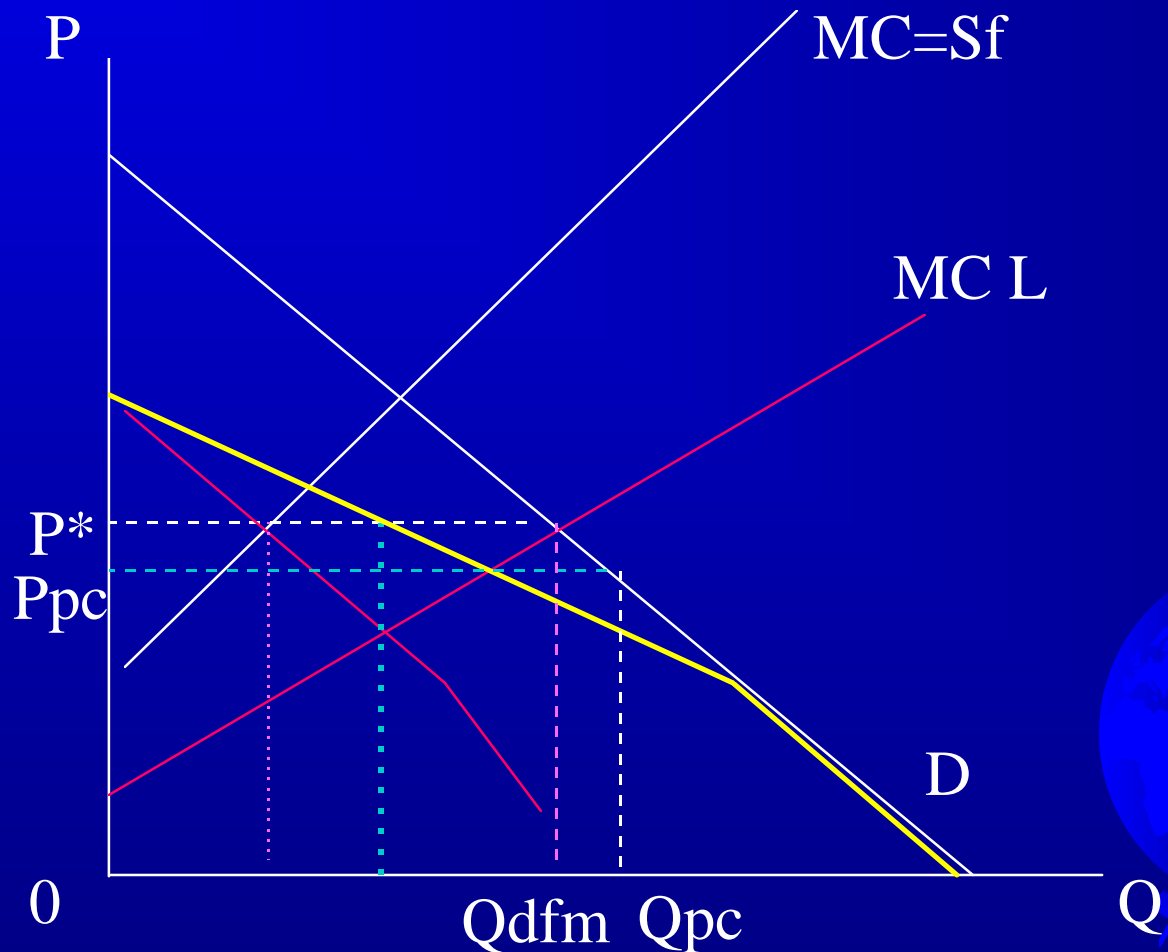


The Dominant Firm Model (3)



Comparing the dominant firm with perfect competition.

What if the demand and supply curves were more (in)elastic?



How can dominant firms maintain their position?

- ◆ Here we look at 2 methods
 - Erecting Barriers to entry and
 - Predatory Pricing



Barriers to Entry

- ✦ Entry into an industry or to a segment of an industry can occur because there is
 - *de novo* entry.
 - ◆ However, small firm entry is unlikely to have a significant impact on market power for some time. Indeed, a large number of small firms fail to grow and those that do are taken over.
 - takeover from outside the industry
 - the development of technologically similar firms who develop their product range.
 - the transference of brand names across sectors (e.g. Virgin)
 - an increase in import penetration. Again, the scale of the firm involved is important here.



What do we mean by an entry barrier?

- ◆ Various definitions but we will use Stigler
 - ◆ “a cost of producing (at some or every rate of output) which must be borne by a firm which seeks to enter an industry but is not borne by firms already in the industry”
- ◆ This emphasises the asymmetry in costs between the incumbent and the potential entrant.
 - ◆ e.g. a £500 million investment by an incumbent is not a barrier to entry
- ◆ However, it is also important to identify whether sunk costs exist
 - ◆ If they do not then the market might be deemed ‘contestable’.
 - ◆ Reality suggests that they do exist and this raises the cost of entry.



Categorising Entry Barriers

◆ Innocent or structural barriers

– Exogenous. Due to

- ◆ changes in technology, consumer preferences or govt intervention

◆ Strategic or behavioural barriers

– Endogenous. Due to

- ◆ purposeful action by incumbents



Innocent Entry Barriers

◆ Examples include

- Cultural differences
 - ◆ Halal Butchers, Kosha foods
- Geographic isolation
- Government regulations
 - ◆ planning permission by local govt.
 - ◆ licenses for taxis and private hire.
 - ◆ trade restrictions
- Insufficient Market size
 - ◆ due in part to government regulations and technology



Insufficient Market Size: The Case for a European Single Market

Some Products for which the Minimum Efficient Technical Size is superior equal to 20% of the production of the UK

<u>NACE Code</u>	<u>Product</u>	<u>METS as % of Production</u>		<u>Cost gradient at 1/2 METS</u>
		<u>UK</u>	<u>EC</u>	
351	Cars	200	20	6 - 9
33	Computers	>100	n.a.	5
364	Aircraft	>100	n.a.	20
321	Tractors	98	19	6
251	Titanium Dioxide	63	50	8 - 16
346	Washing Machines	57	10	4.5
345	TV Sets	40	23	5
429	Cigarettes	24	6	1.4
251	Synthetic Rubber	24	3.5	15
251	Petrochemicals	23+	3+	12
326	Ball Bearings	20	2	8 - 6

source: Adapted from Emerson et al 1988, The Economics of 1992, Oxford University Press. The original source is cited as Pratten (1987).

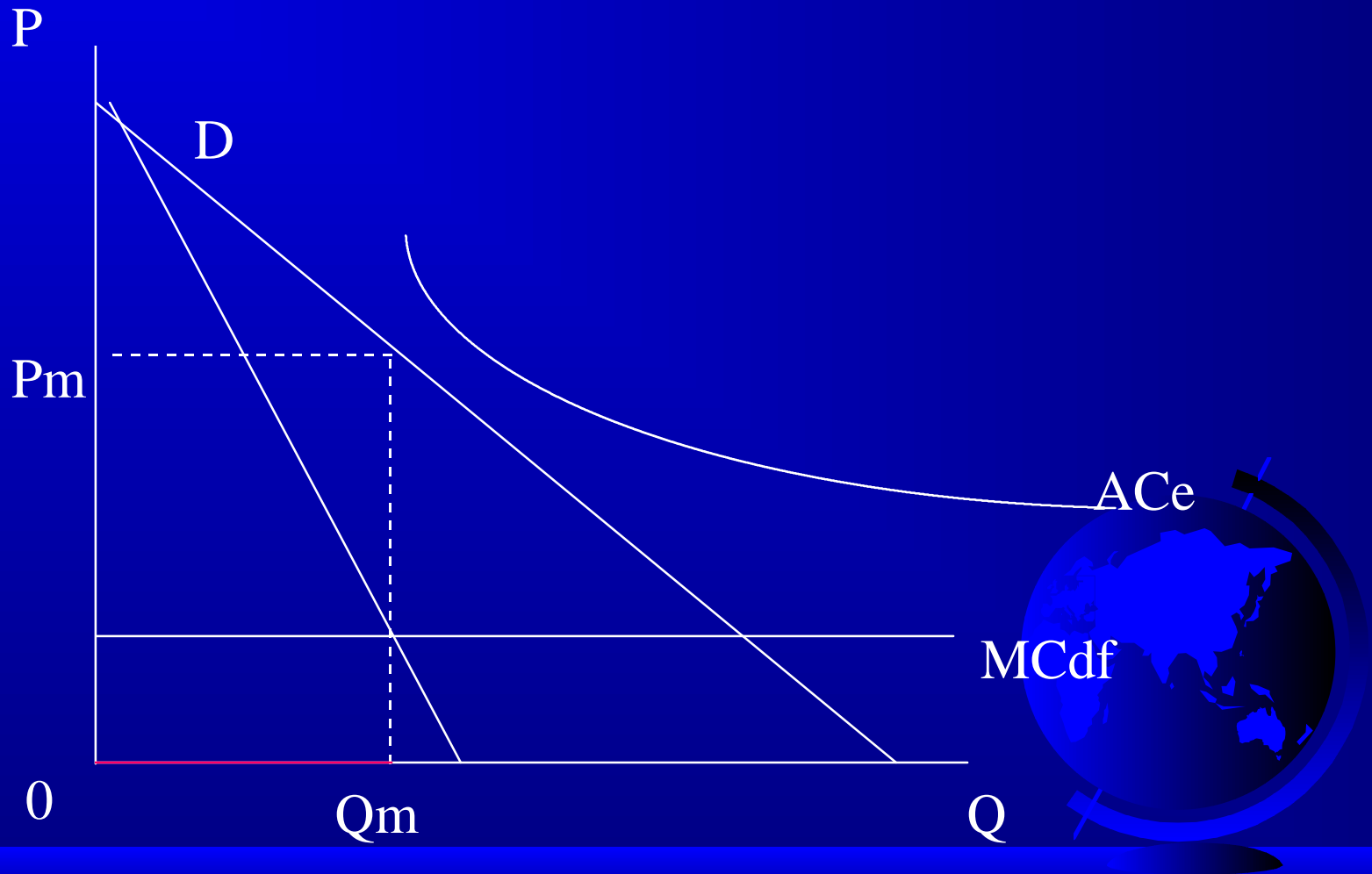


Innocent Entry Barriers (2)

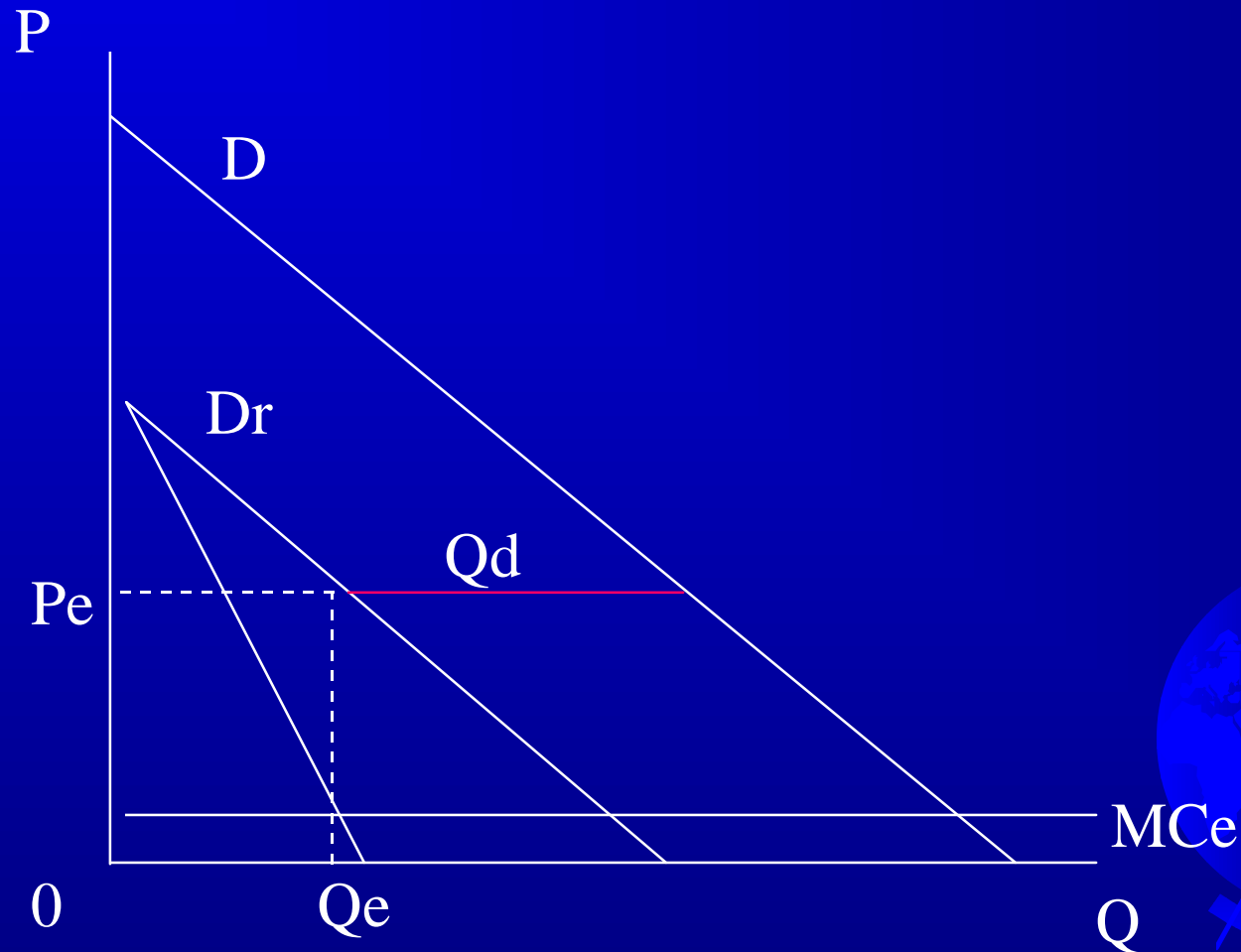
- ◆ Here we examine
- ◆ Blockaded Entry due to technological differences
- ◆ Profitable Entry
- ◆ Limit Pricing (Though technically it should be Limit Output)



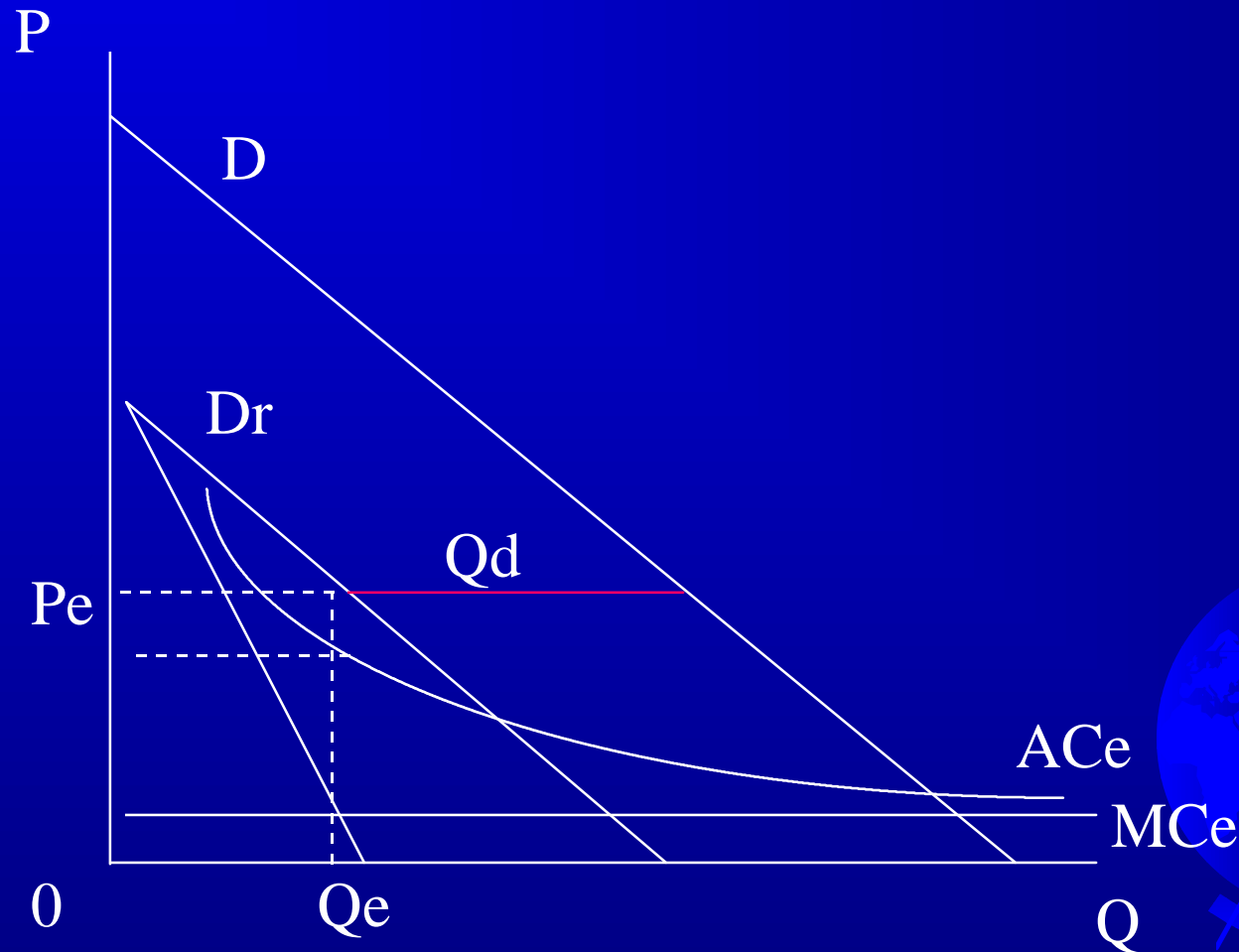
Blockaded Entry



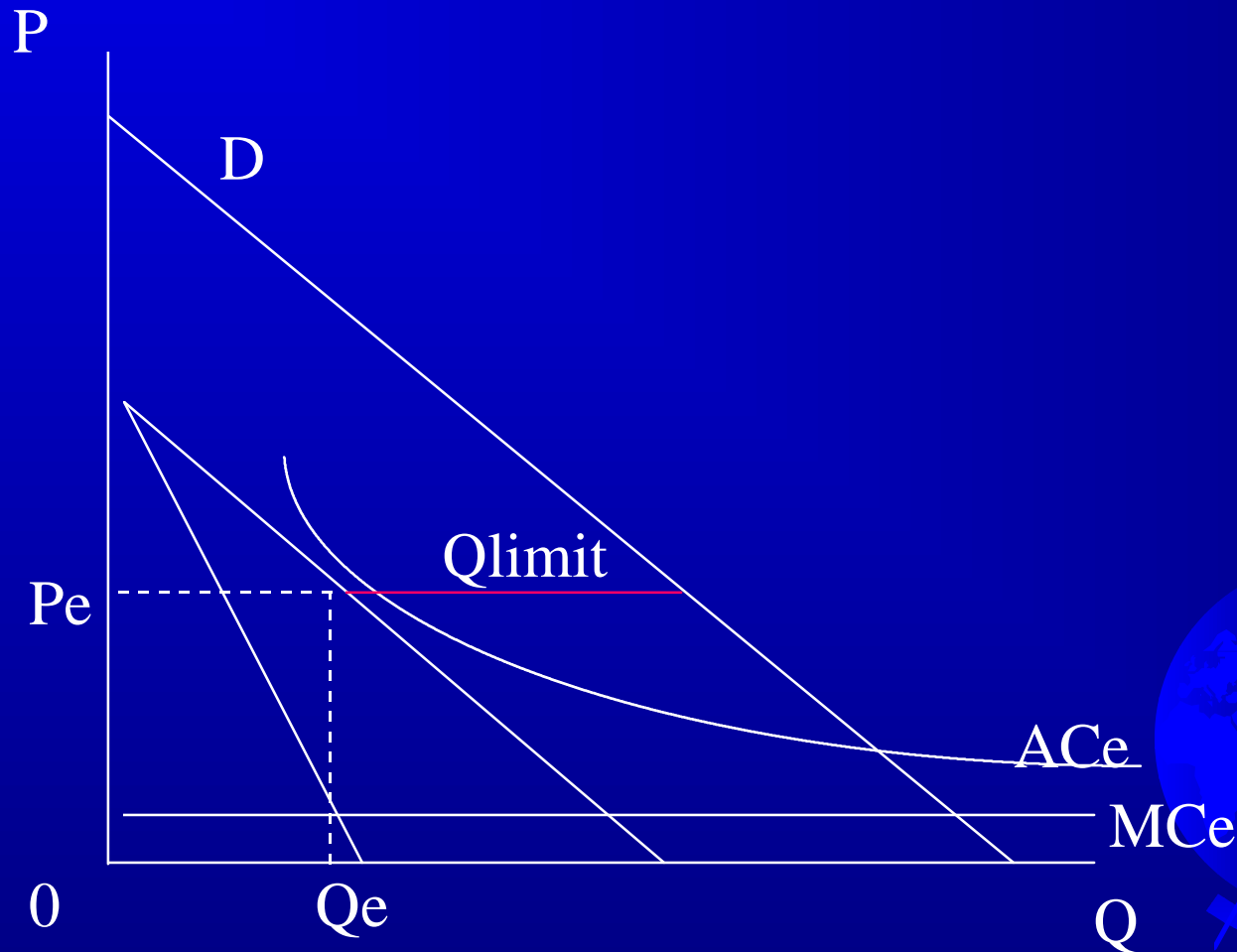
To enter or not to enter? That is the question...for the Potential Entrant



To enter or not to enter? That is the question...for the Potential Entrant



Limit Pricing by the Incumbent Monopolist.
Entry does not occur because the potential entrant cannot realise even normal returns.



Should we worry about entry barriers?

- ✦ Barriers may not be detrimental to economic welfare.
 - Firms who invent or innovate should be protected.
 - If the market can only sustain one firm then entry should be forbidden unless we want ‘destructive competition’. (The natural monopoly argument)



Should we worry about entry barriers?(2)

◆ Note

- there is usually a time lag between possible entry and full production which give the incumbent an advantage.
- there is usually a sunk cost involved in entering which raises the cost of exiting.
- incumbent firms may act strategically to deter entry.
- Again, these may reflect the competitive advantage of firms.

- ◆ However, there are certainly occasions where strategic entry barriers constitute **anti-competitive behaviour**.



Strategic Entry Barriers

- ◆ There is a conceptual problem with the analysis of limit pricing, namely the SYLOS POSTULATE.
- ◆ There is a naive assumption that the incumbent will keep its output at pre-entry levels in the event of entry. But is this a credible threat?
- ◆ If the entrant decided to enter what would happen?
 - The following Game considers that the entrant has to bear a £40 million sunk cost to enter the industry.



Strategic Entry Deterrence

		Potential Entrant	
		Enter	Stay Out
Incumbent Monopolist	High Price Accommodation in the event of entry	(50, 10)	(100, 0)
	Low Price Fight Entry	(30, -10)	(60, 0)



Strategic Entry Deterrence: Empty and Credible Threats

- ✦ Clearly, a ‘rational’ incumbent will accommodate the entrant rather than fight (£50 m > £30 million).
- ✦ The threat of entry deterrence is not credible (it is an **empty threat**).
- ✦ The incumbent has to deter entry by making a **credible commitment**. Making an additional investment such that it will lose out if the investment is not used.
 - In the following game that commitment is a sunk cost of £30 million



Strategic Entry Deterrence

		Potential Entrant	
		Enter	Stay Out
Incumbent Monopolist	High Price Accommodation in the event of entry	(20, 10)	(70, 0)
	Low Price Fight Entry	(30, -10)	(60, 0)



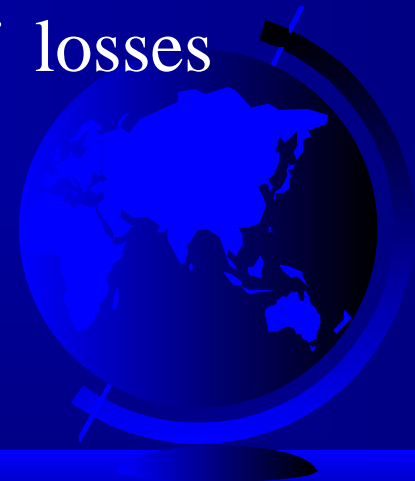
Methods of Strategic Entry Deterrence

- ◆ Dominance can be enhanced by some of the following strategic means
 - Acquisition/ mergers
 - Vertical integration
 - Product differentiation
 - Capacity expansion
 - Predatory Pricing
 - ◆ incumbents may offer price cuts to selected customers who identify lower price entrants
- ◆ these may be deemed anti-competitive.

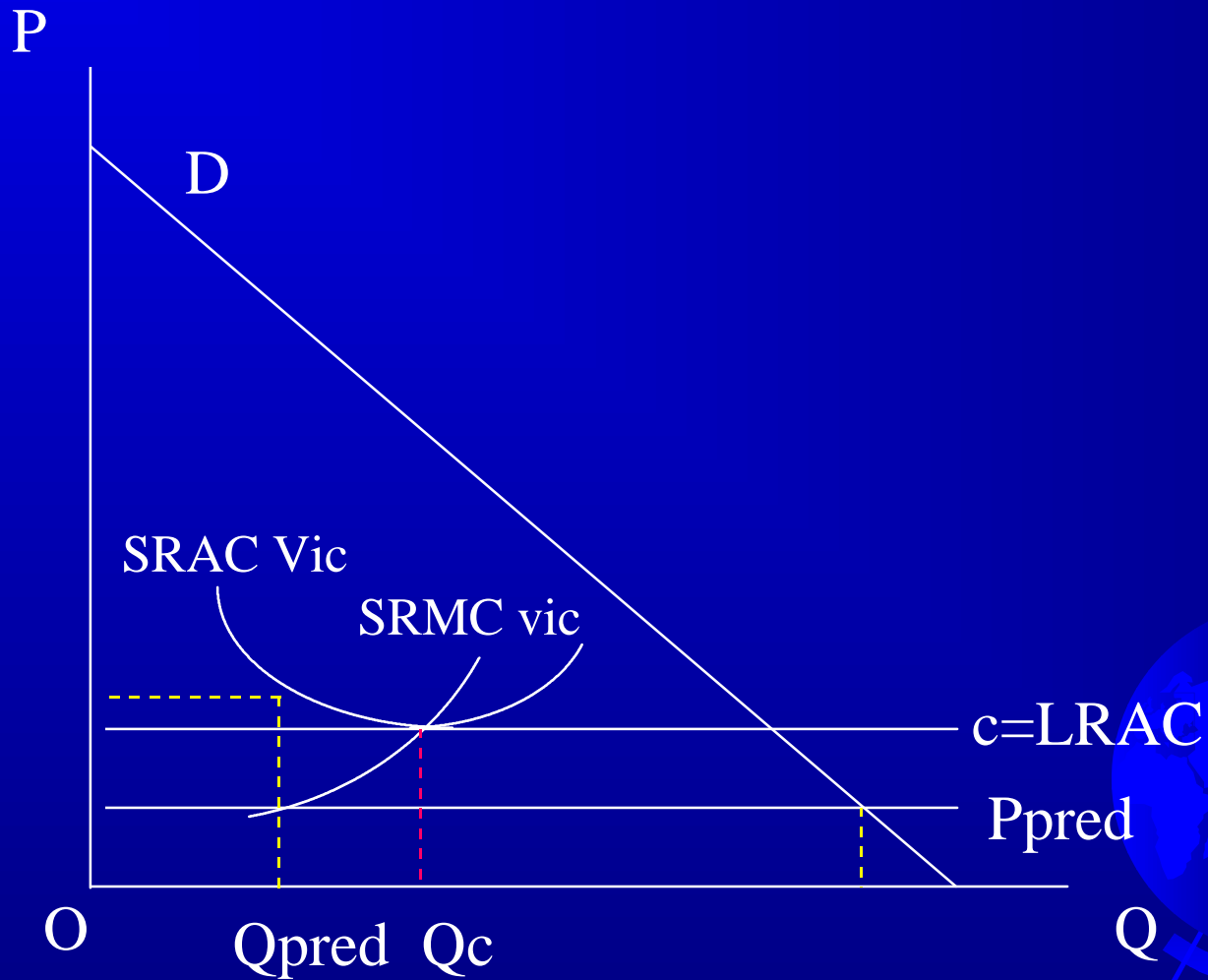


Predatory Pricing

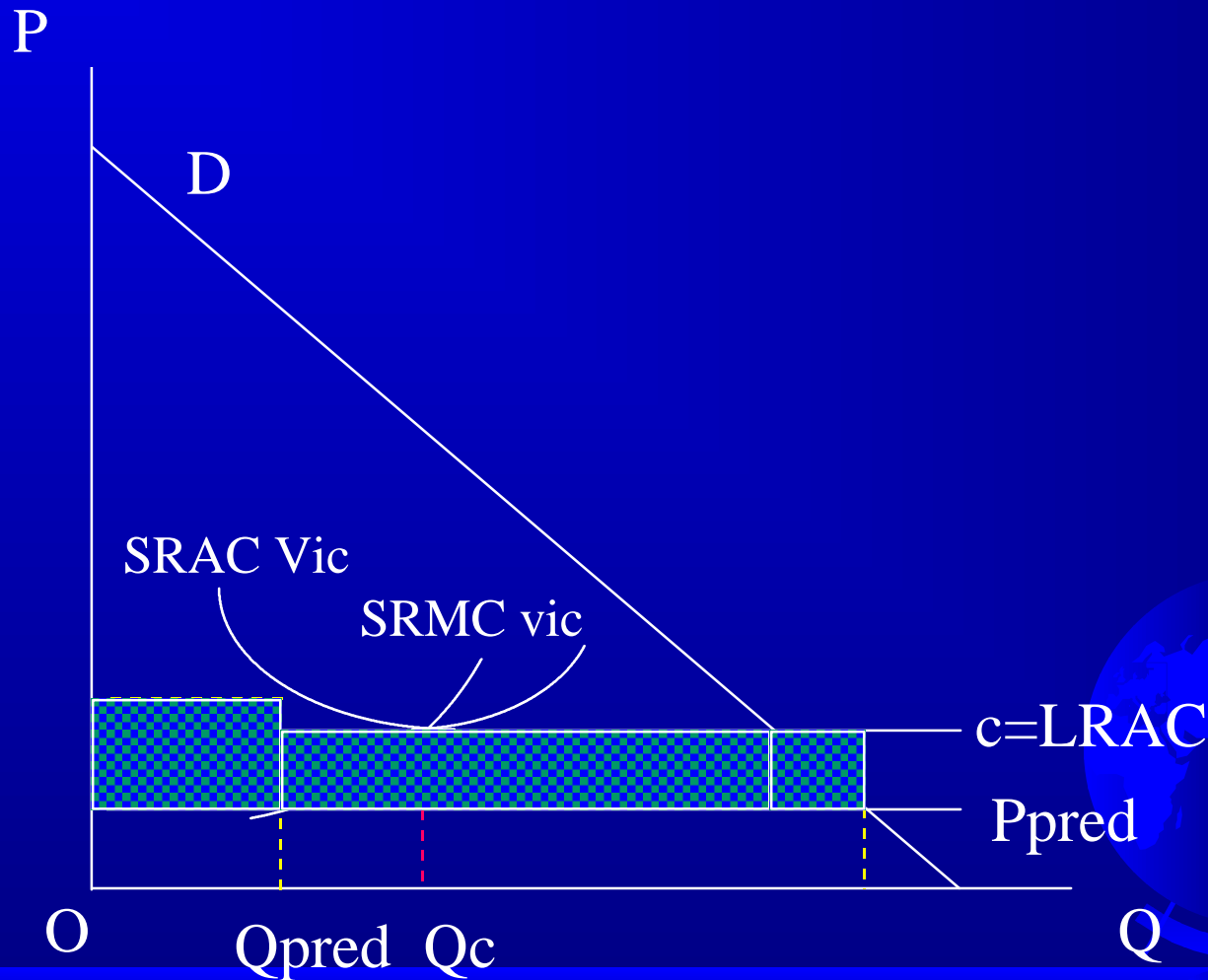
- ◆ Firms who have market power in more than one market may set prices below cost in one period in order to drive out rivals and restrict entry. Having done so, it once again raises price.
- ◆ Predation will be considered a strategy if the present value of profits earned after rivals have exited is greater than the present value of losses from predation.



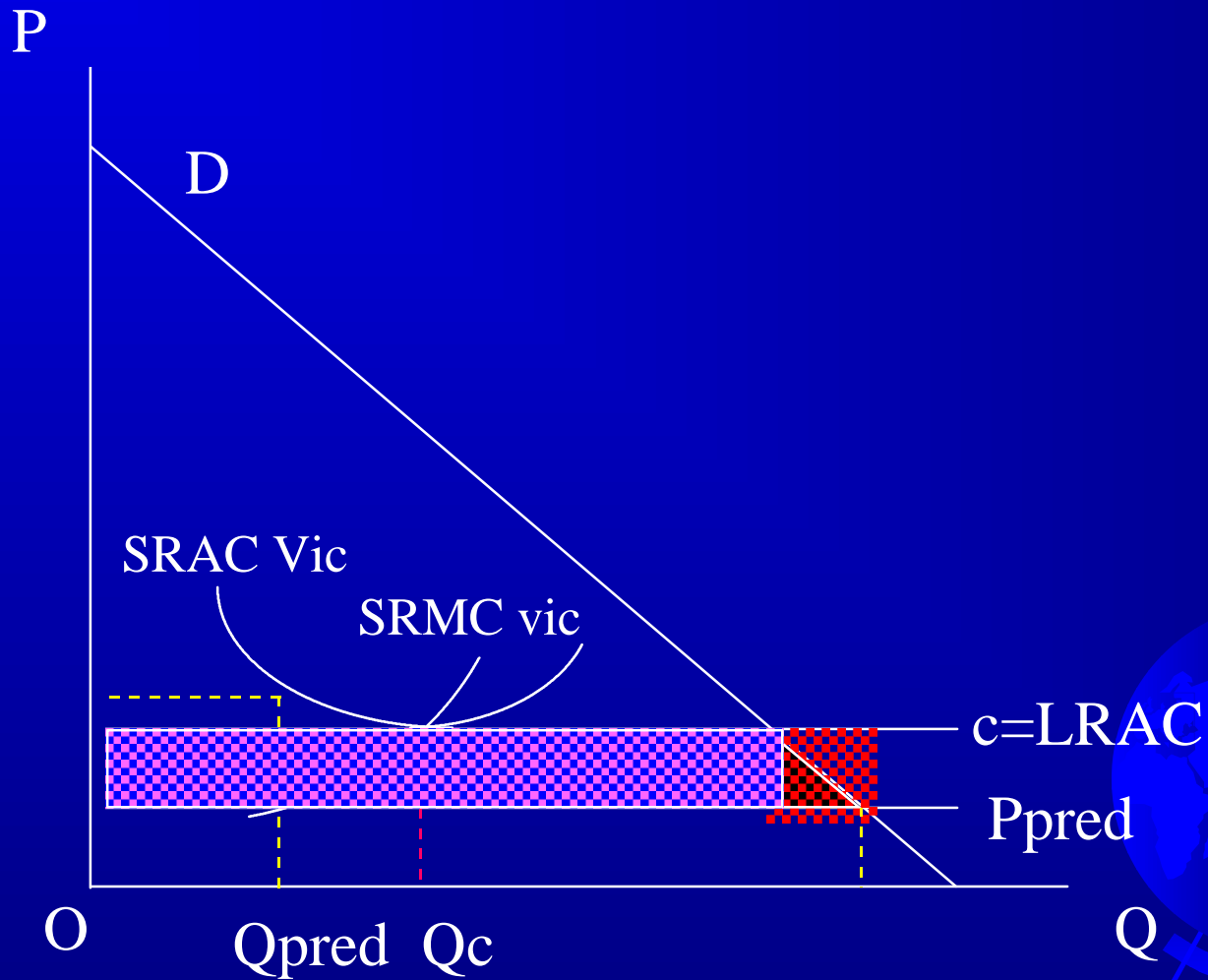
Predatory Pricing: Stage 1



Predatory Pricing: Stage 1 Loss

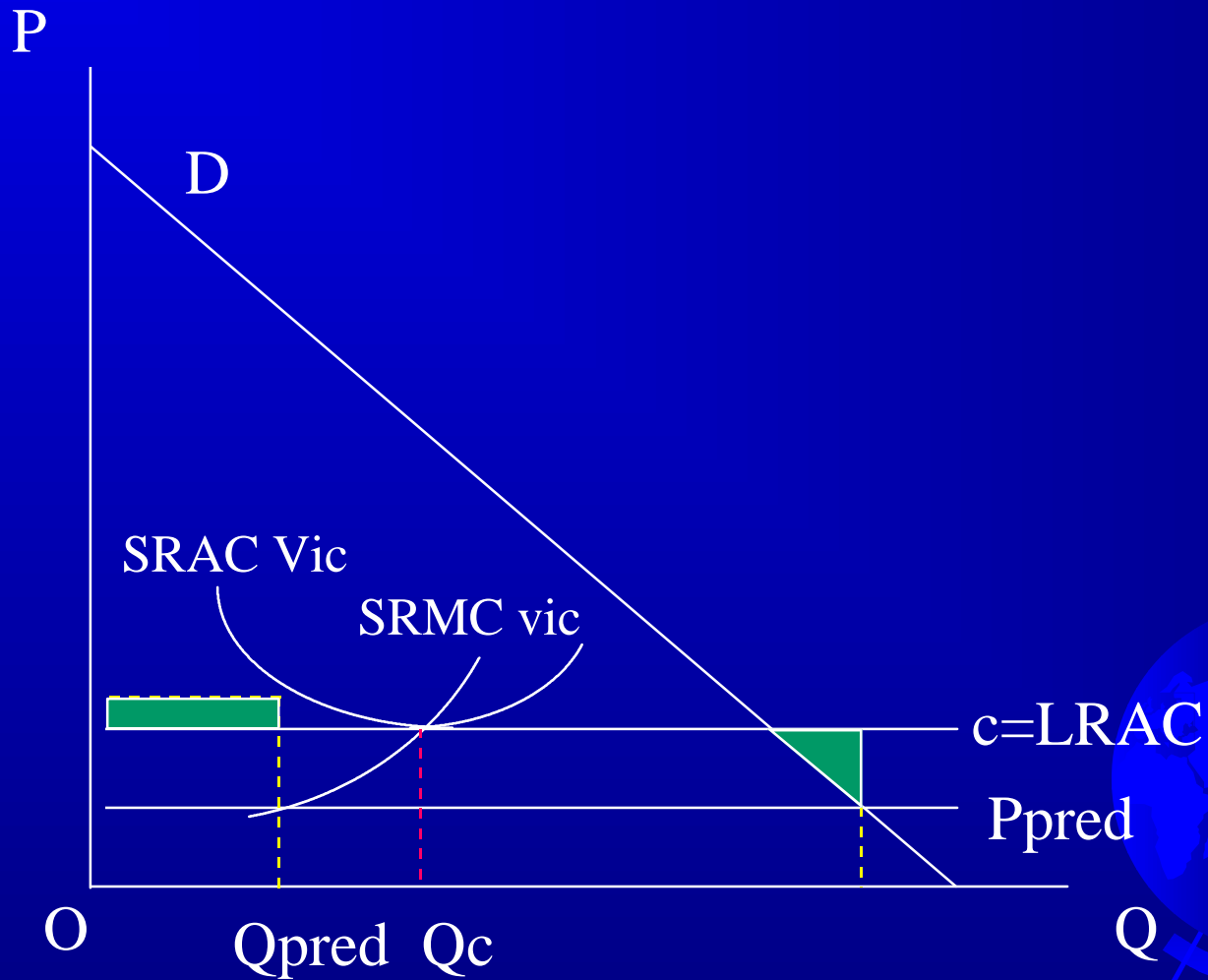


Predatory Pricing: Stage 1 Gain



Predatory Pricing: Stage 1

Net Loss



Predatory Pricing

- ◆ In the second stage the predator can embark upon monopoly pricing.
- ◆ Note predation requires
 - capital markets to be imperfect
 - ◆ target firms are unable to lend money to weather the storm
 - consumer coalitions to fail
 - ◆ here the problem is that there are large transaction costs in negotiating contracts.
 - that merger is not a possible alternative (but then again this would be viewed as anti-competitive)

