



Barriers to Entry and Economic Welfare

by

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A simple illustration of an entry barrier

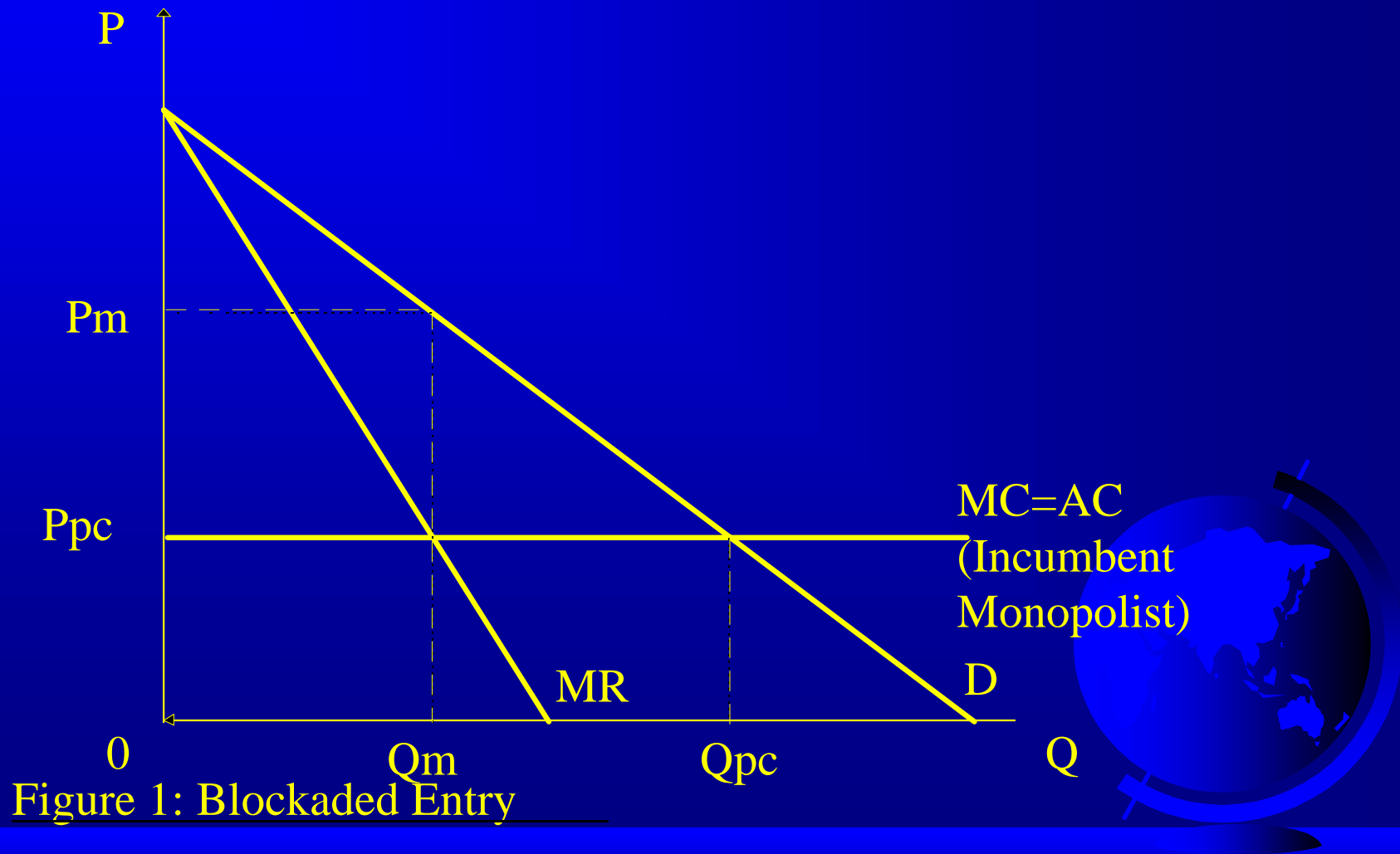
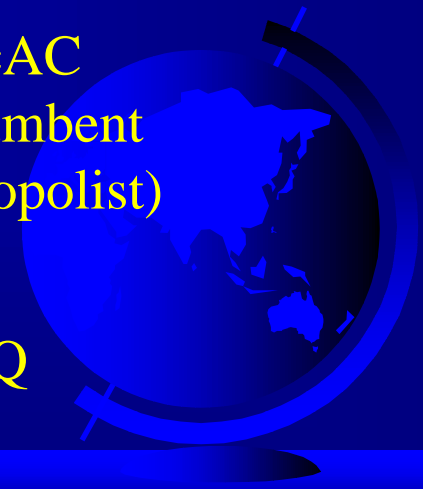
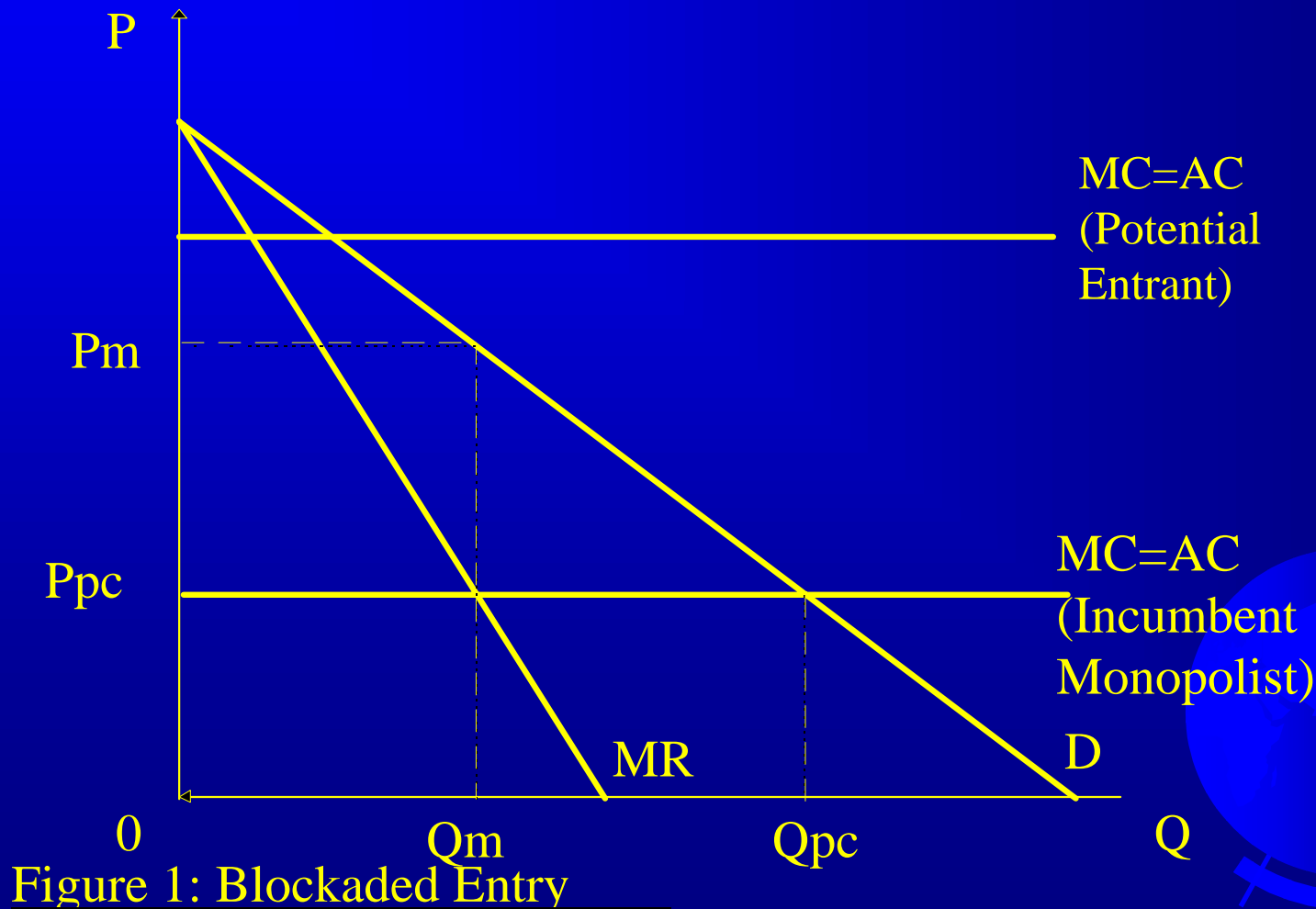


Figure 1: Blocked Entry

A simple illustration of an entry barrier



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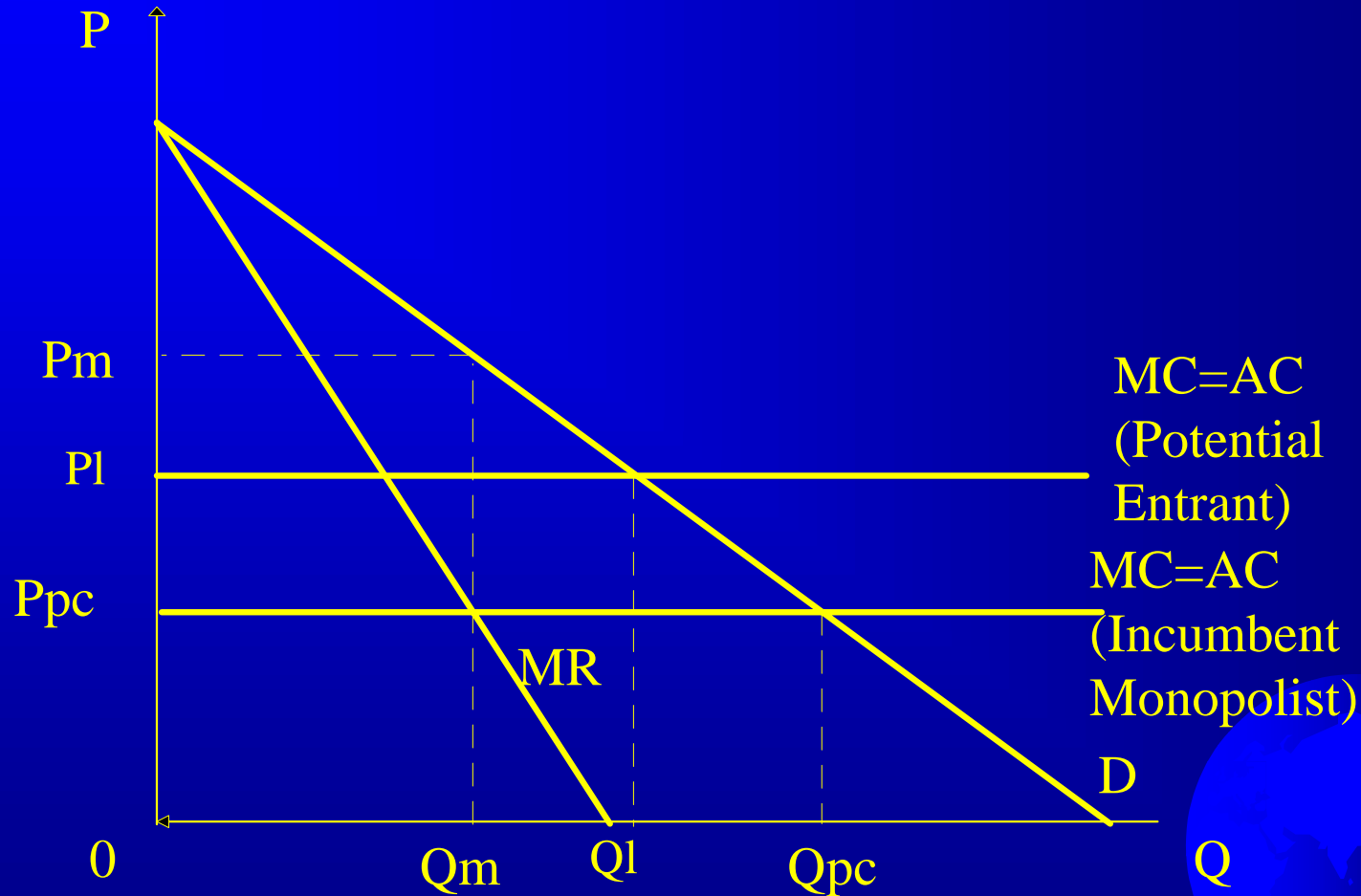
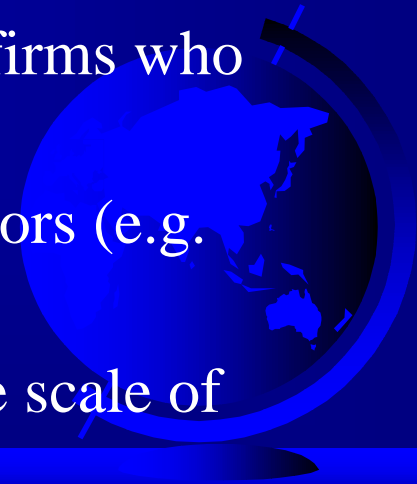


Figure 2: Limit Pricing given the presence of effective potential competition



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).

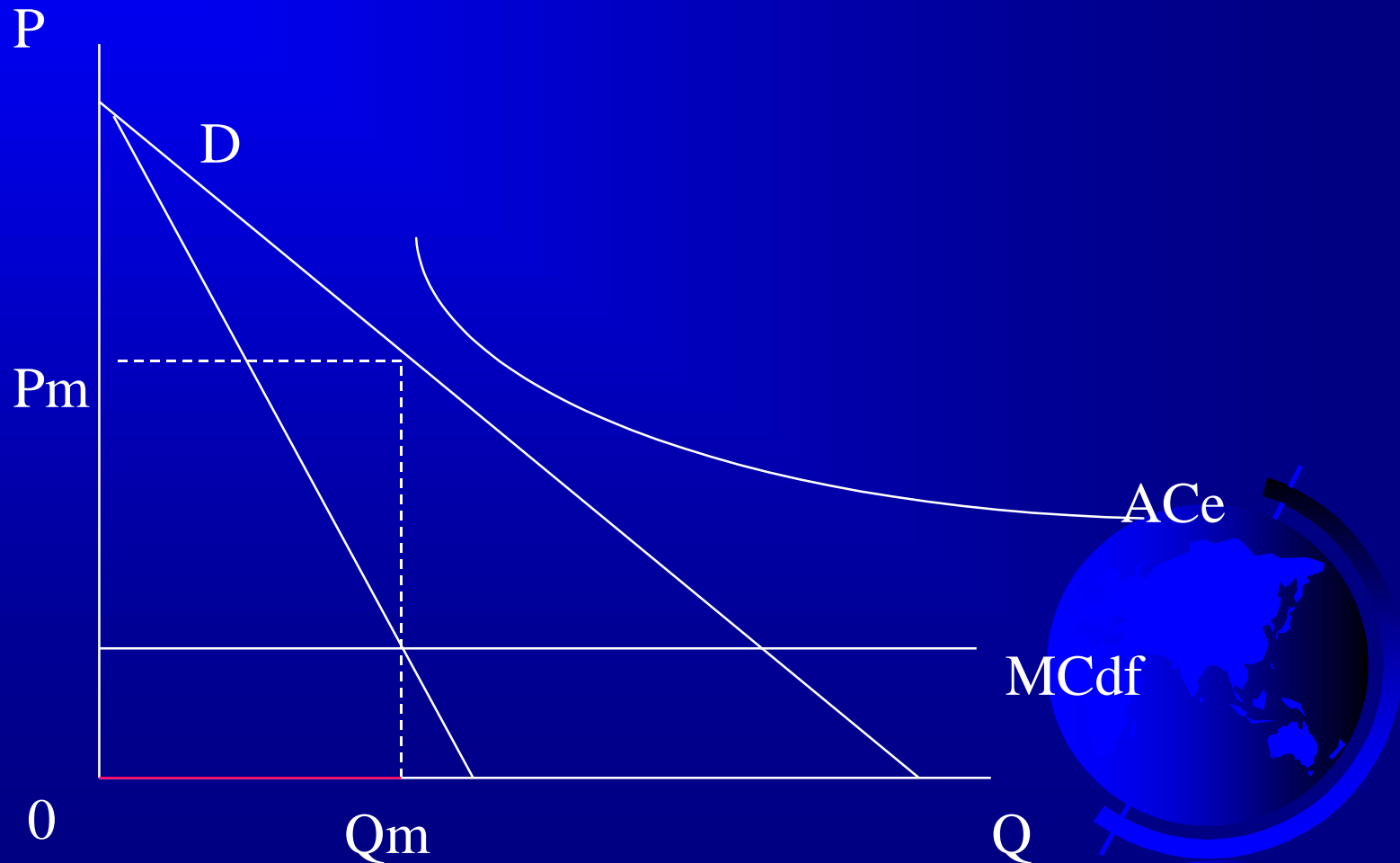


Innocent Entry Barriers (2)

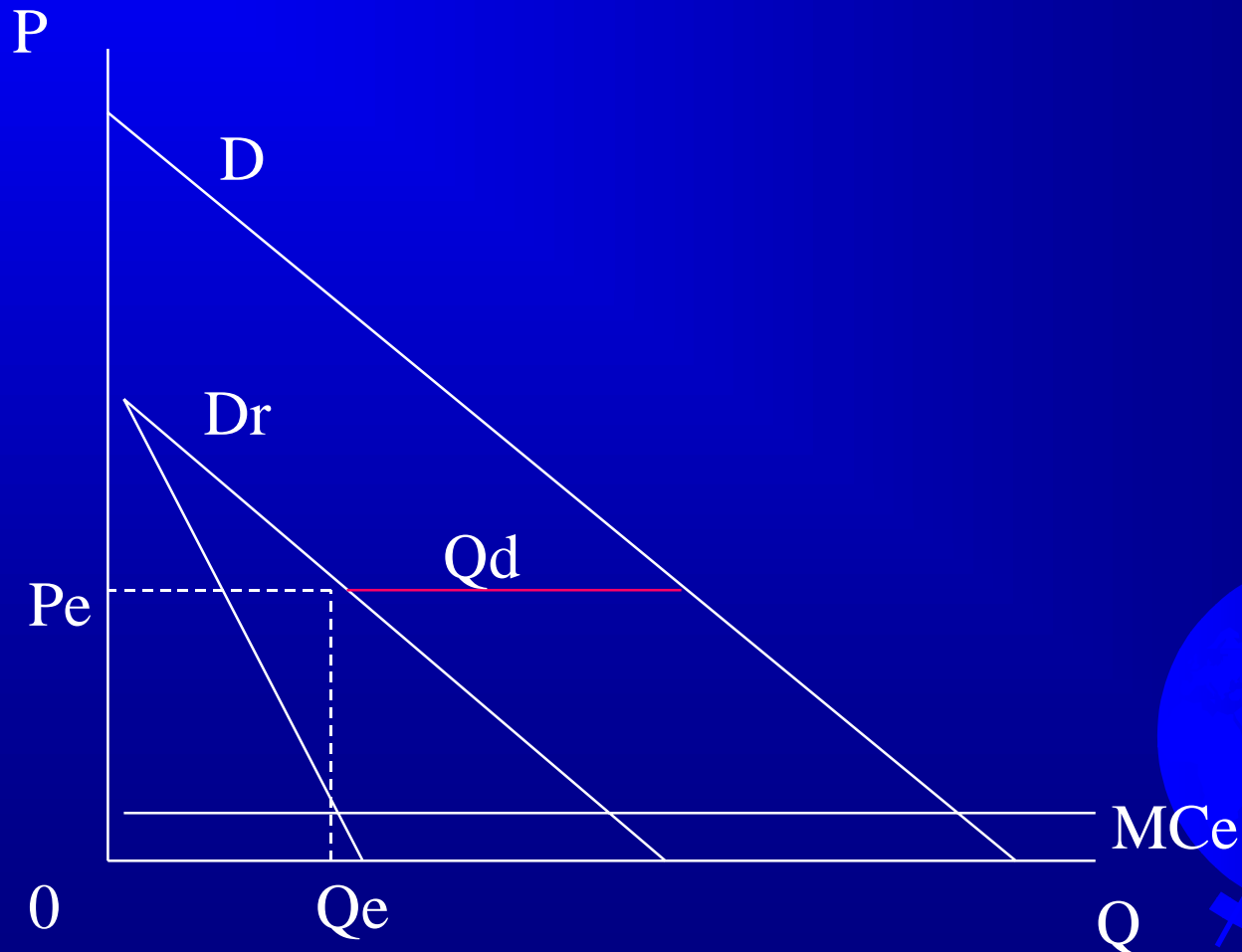
- ❖ Here we examine
- ❖ Blockaded Entry due to technological differences
- ❖ Profitable Entry
- ❖ Limit Pricing (Though technically it should be Limit Output)



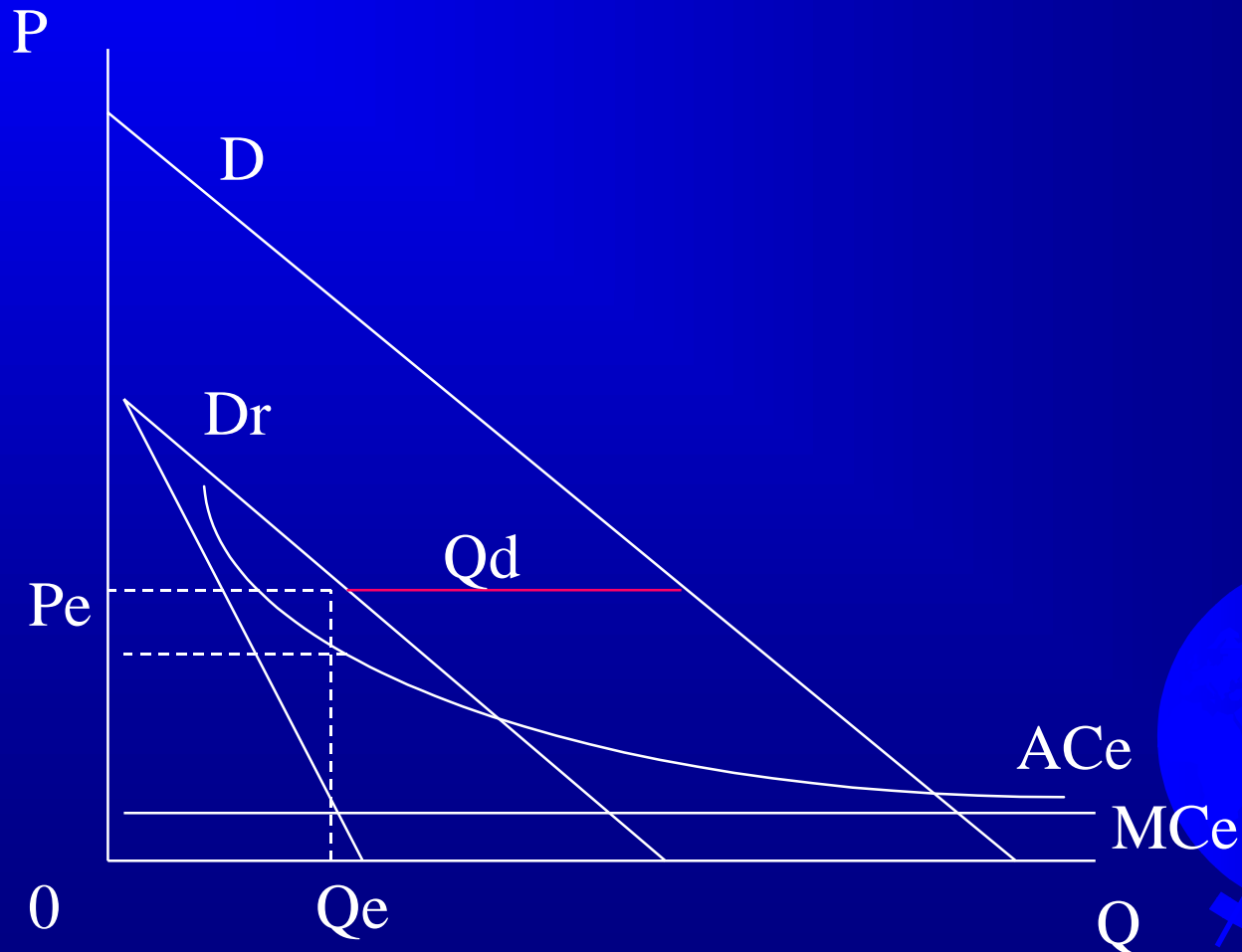
Blockaded Entry



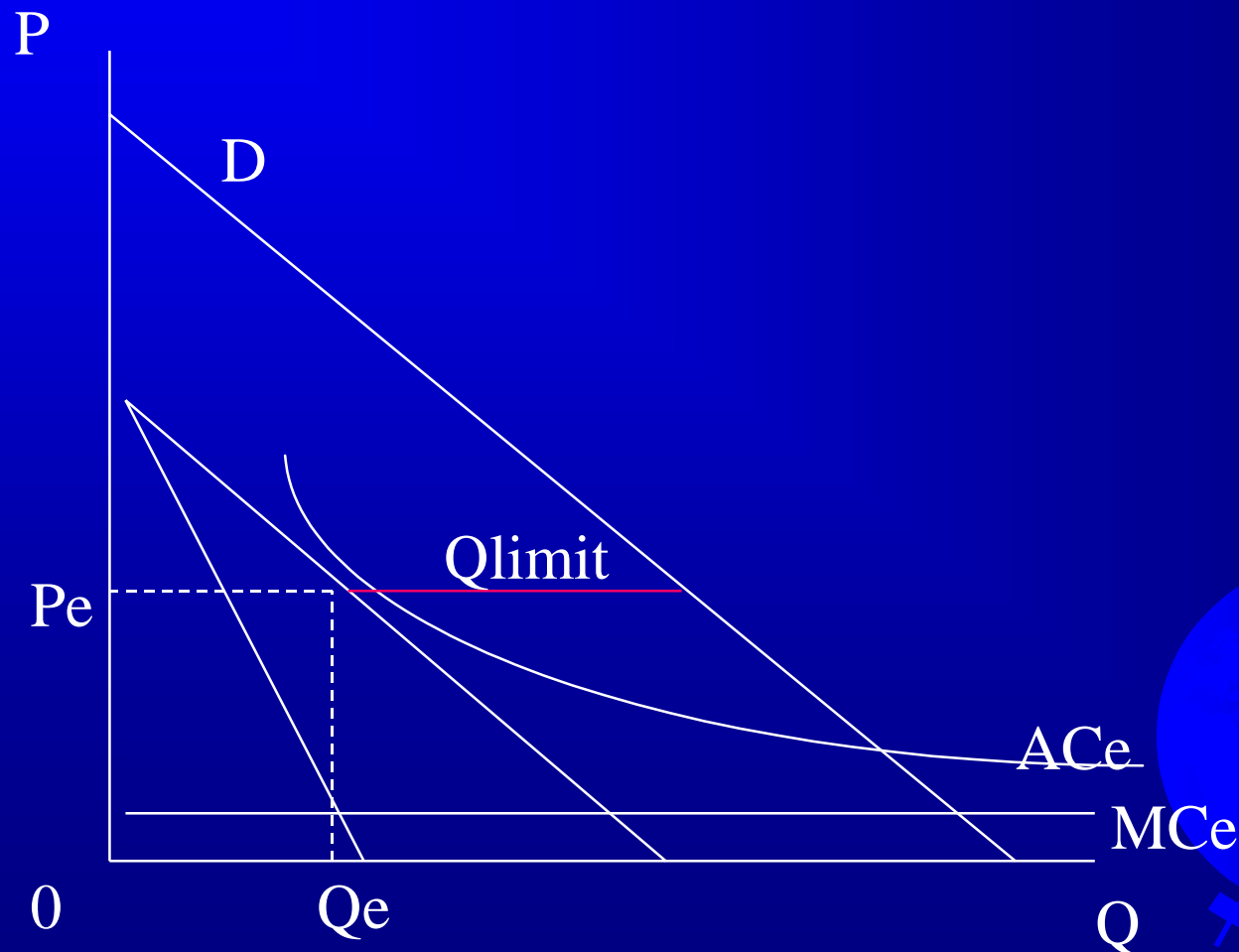
To enter or not to enter? That is the question...for the Potential Entrant



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. We must distinguish between exogenous and endogenous sunk costs.

- ❖ 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



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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.



Time and Uncertainty

- ❖ Entry takes time.
 - Thus there is a trade off for the incumbent between current and future profit
- ❖ This leads to a choice.
 - A dominant firm can earn a higher profit in the short run if it sets a monopoly price but with eventual loss of market dominance as entry slowly occurs,
 - or it can earn a somewhat lower profit indefinitely by setting a limit price.
- ❖ What should it do?

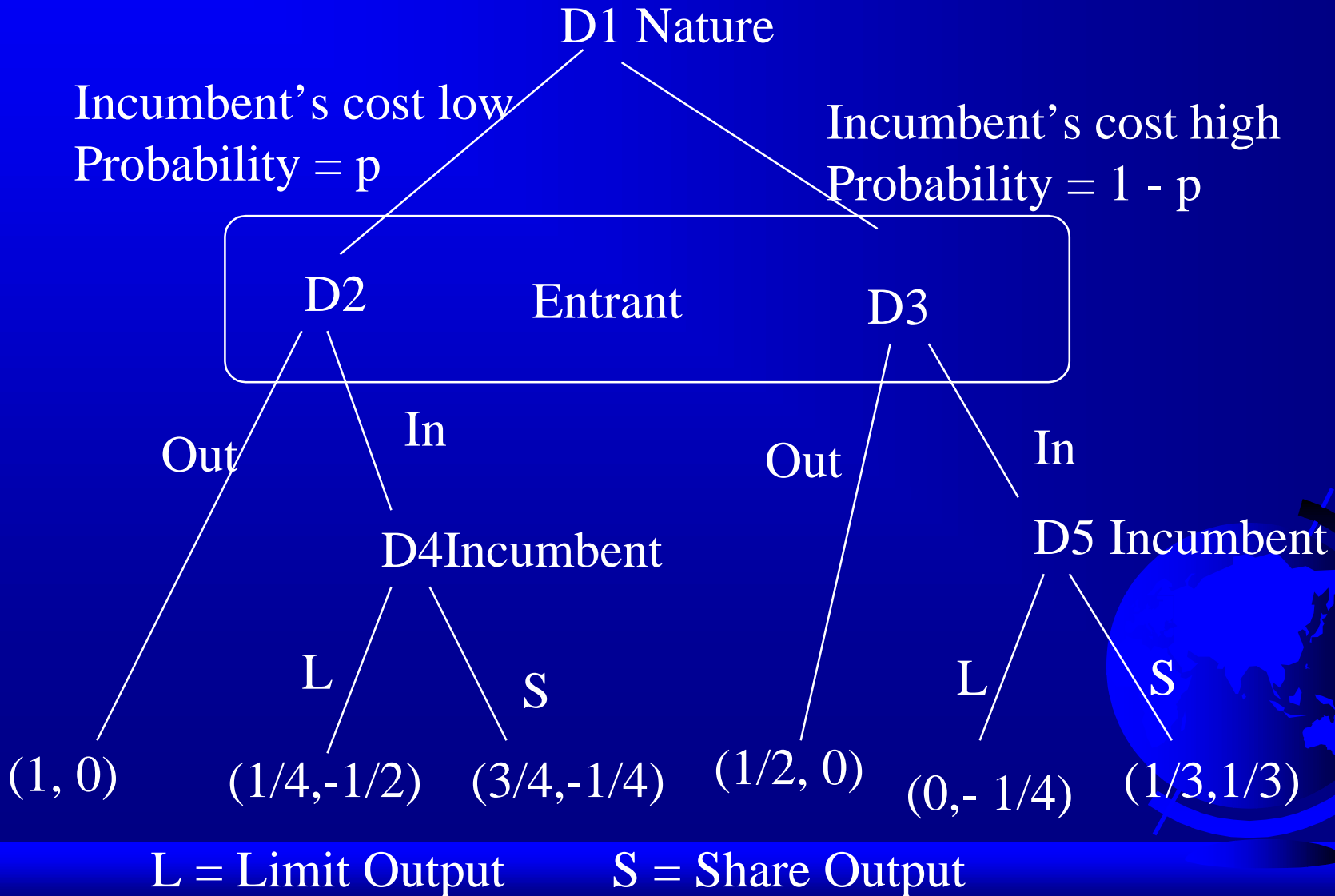


Time and Uncertainty

- ❖ It depends on which offers the greatest present discounted value.
- ❖ Three factors are relevant
 - Profit difference
 - Fringe Expansion Rate
 - Discount Rate



Imperfect Information



Imperfect Information

- ❖ For limit pricing to be feasible the entrant has to form beliefs about the behaviour of the incumbent
- ❖ In a multi-player, dynamic, game it may make sense for a weak incumbent to produce the limit output in the event of entry.
- ❖ By doing so it creates or maintains a reputation for having low unit costs and will deter uncertain entrants.



Some recent European Cases

- ❖ The Frankfurt Airport Case
- ❖ Van den Bergh Foods
- ❖ British Airways

