NETLIPSE Business Cases Seminar: Introduction to Economics

27 October 2010

Introduction

- Understanding how markets work is important when implementing policy
  - Rationale for intervention

- Markets tend to bring about a desirable (efficient) outcomes

- Sometimes there is a problem and markets do not work effectively, this leads to governments intervening to rectify the problem

- This presentation provides some examples of;
  - why markets do not work effectively,
  - how this can be rectified,
  - and how this relates to transport

Contents

- Why governments intervene
- Competitive markets and Supply and Demand
- Externalities and Public Goods
- Market Power
- Concluding Remarks
- Questions

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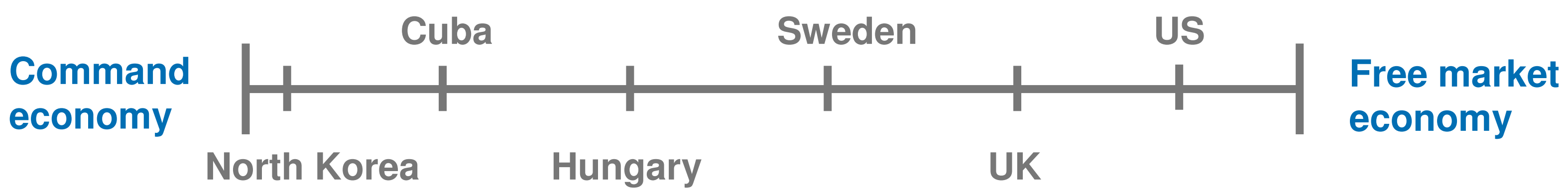
Markets, command economies, free-market economies and mixed economies

Markets

- Markets bring together buyers and sellers of goods and services
- Prices of goods and of resources adjust to ensure that scarce resources are used to make the goods and services that society wants

Economies

- A **command economy** is where a government decides what will be produced, how it will be produced and for whom it will be produced (eg. Cuba, Soviet bloc and North Korea)
- **Free-market economies** pursue their own self-interest without government direction or interference. (Adam Smith - ‘invisible hand’)
- **Mixed economies** lie somewhere in between a command economy and a free-market economy



Knowing why government should intervene is an important step in policy-making

Economic Efficiency	If markets are not working efficiently
Equity	If the allocation of income or wealth is considered inequitable
Revenue Raising	To fund government and a legal system to enable markets to function

Economists are generally concerned with improving economic efficiency

If there is no way to make someone better off without making someone worse off, a situation is described as economically efficient

However, all government policies will have distributional consequences and generate both ‘winners’ and ‘losers’. A weaker form of efficiency, used strongly by economists, is to see if the ‘winners’ from an intervention would still be better off if they compensated the ‘losers’ fully for their loss

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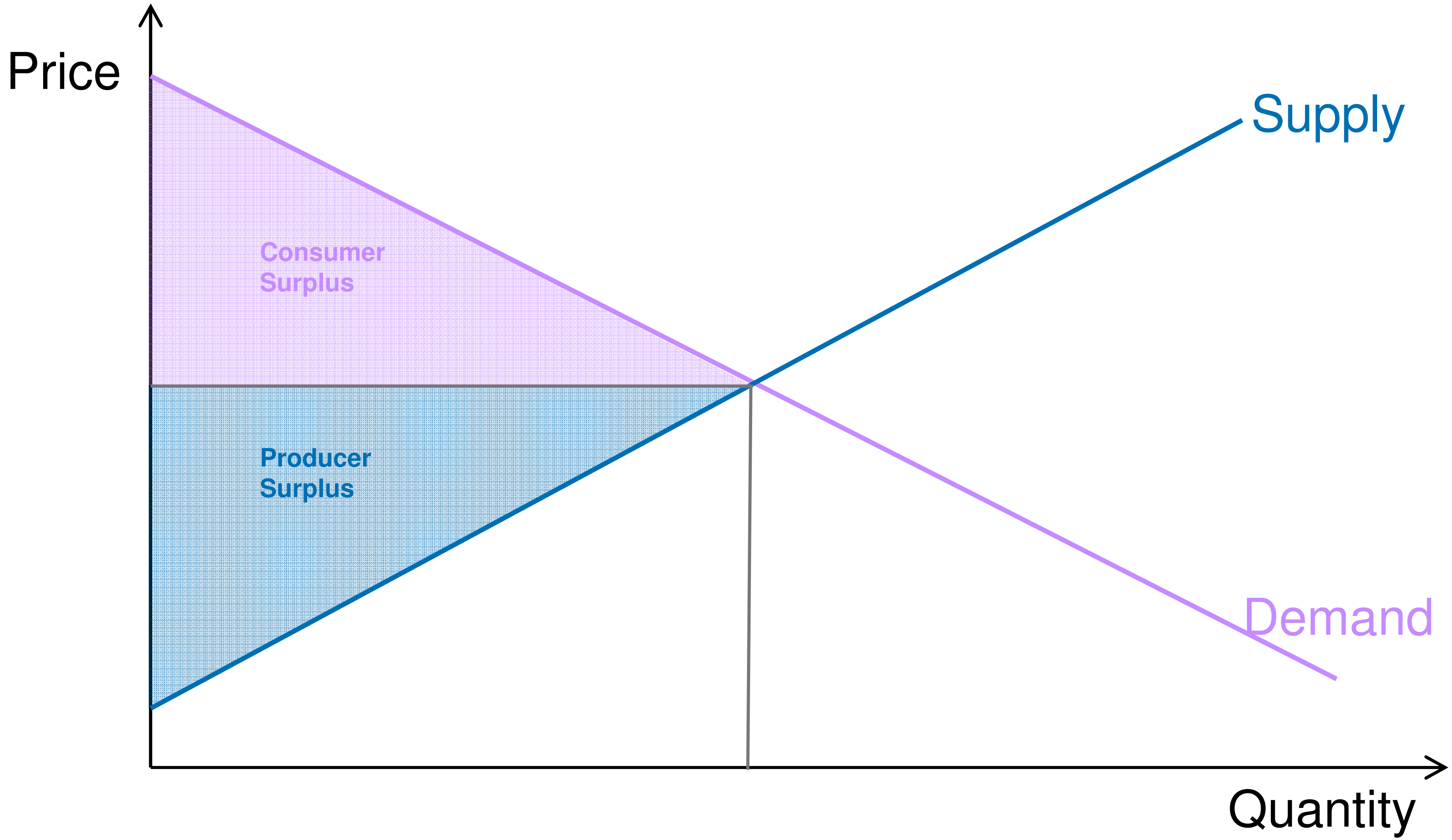
In equilibrium the amount that sellers want to supply, and the amount that consumers want to buy are the same



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A major reason why DfT takes action is because of the existence of externalities…

- **Externalities** exist where buyers and sellers in a market do not consider costs or benefits on third parties. There are different kinds of positive and negative externalities:

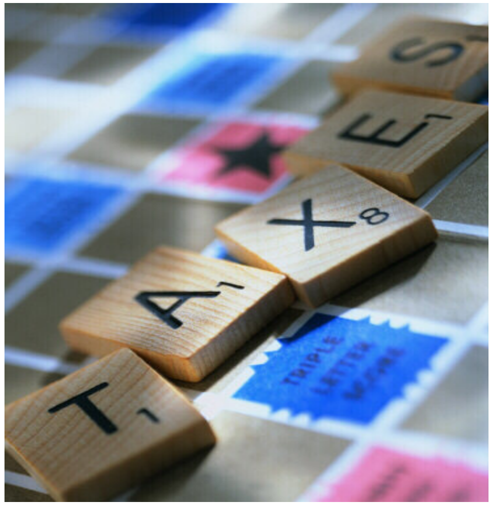
  – **Environmental Externalities** exist where production/consumption leads to costs being imposed on businesses or consumers

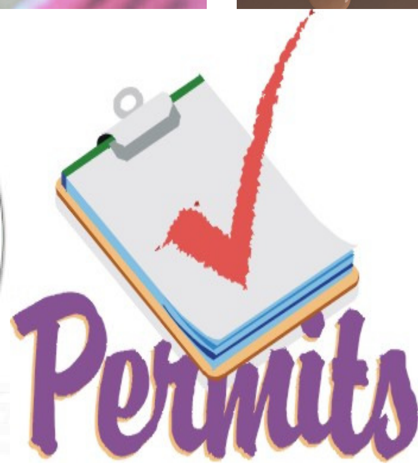
  – **Network Externalities** exist when a product/service has more value when other similar products/services exist

  – **Knowledge Spillovers** exist where new inventions or information can be used by others

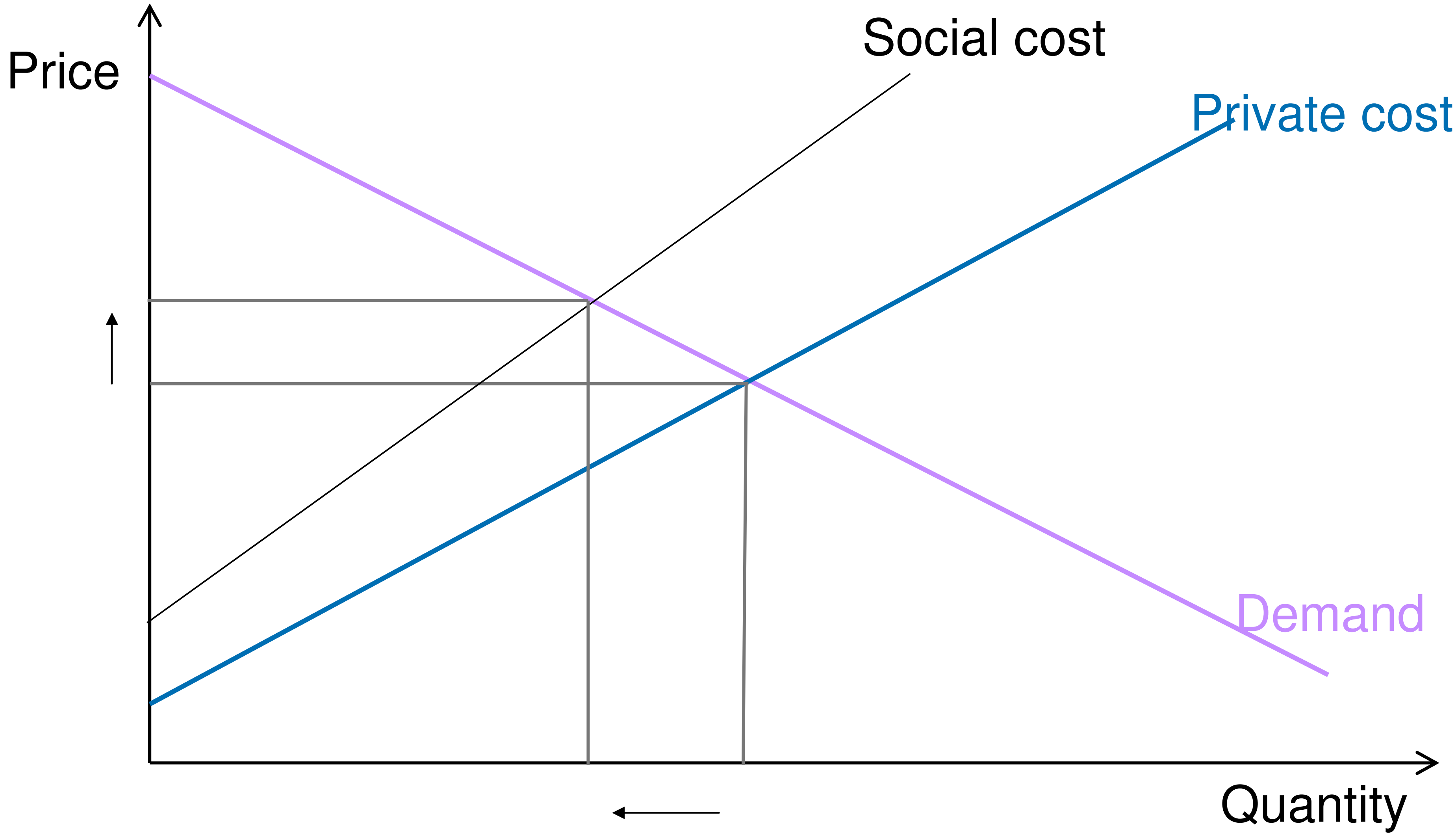
… For which there are many potential remedies

- The most commonly proposed solution by economists is the use of **Taxes** (or subsidies) on sales of a good which produces externalities
- Other options include
  - The allocation and enforcement of **property rights** so that affected parties can use the courts to prevent damage or receive compensation .
  - Regulation, to prohibit or limit (or mandate) an activity with external costs (or benefits)
  - Permits to pollute (which could be tradeable)
  - Charges per unit of pollution





These remedies can help the market get towards an efficient outcome



Governments may intervene on the basis that the market would otherwise fail to supply something considered to be a public good.

- **Public Goods** are those which are **nonexclusive** and **nonrivalrous**
  - **Nonexclusivitity** exists where, if the good is provided, it would be impossible, or very costly, to prevent individuals from enjoying the benefits
  - **Nonrivalry** exists where one individual's use of the good does not negatively impact on any other individual's ability to use the good

- There are many examples of mixed goods, as demonstrated below:

	Excludable	Non-excludable
Rival	**"Pure" private goods** Food, clothing	**Common pool resources** common land, fish stocks, congested roads
Non-rival	**Club goods** Uncongested toll roads, satellite TV	**"Pure" public goods** National defence, quietness, clean air

Public sector provision is the main solution to the 'problem' of public goods

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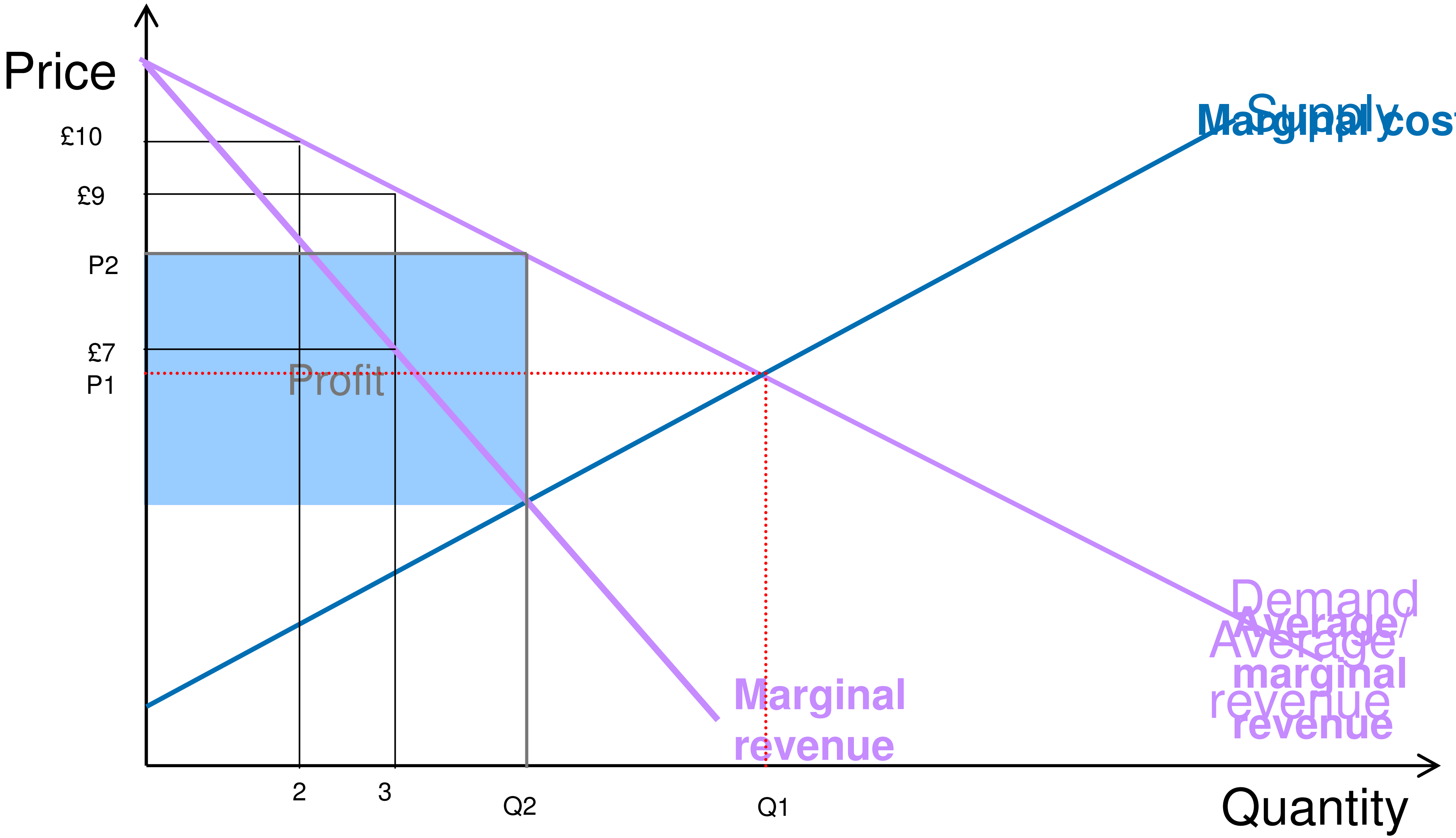
But when a buyer or seller has the ability to influence prices economic efficiency might be compromised



Governments may want to intervene to reduce the power of the monopoly

- A **monopoly** supplier is one who supplies an entire market and can control the price
- For a monopoly to remain the single supplier, it must be protected from new competitors by **barriers to entry**
- A monopolist is able to charge a higher price than would be charged in a competitive market.

Options for government intervention might include:

- Nationalising the industry
- Breaking up the monopolist into separate firms [horizontally, vertically or geographically]
- Removing regulation that supports the monopolist
- Fining the monopolist for abusive conduct (e.g. **predatory pricing**, where prices are slashed when competitors enter the market and increased when the competitor leaves)

In a Natural Monopoly the 'efficient' outcome is for the firm to make a loss, which cannot be sustained

- Natural Monopolies often exist where there are high fixed costs, such as for infrastructure
- This means it is more efficient for one firm to supply the whole market
- However, if the natural monopolist was to charge the competitive price the firm would make a loss

There are a range of solutions:

- Regulation
  - To bring prices in line with the cost of producing the last unit of output; **this will require a subsidy**
  - To force the natural monopolist to make only ordinary levels of profit
  - To set price caps, or annual price rise caps
- Nationalisation
  - Running the business publicly might require a subsidy

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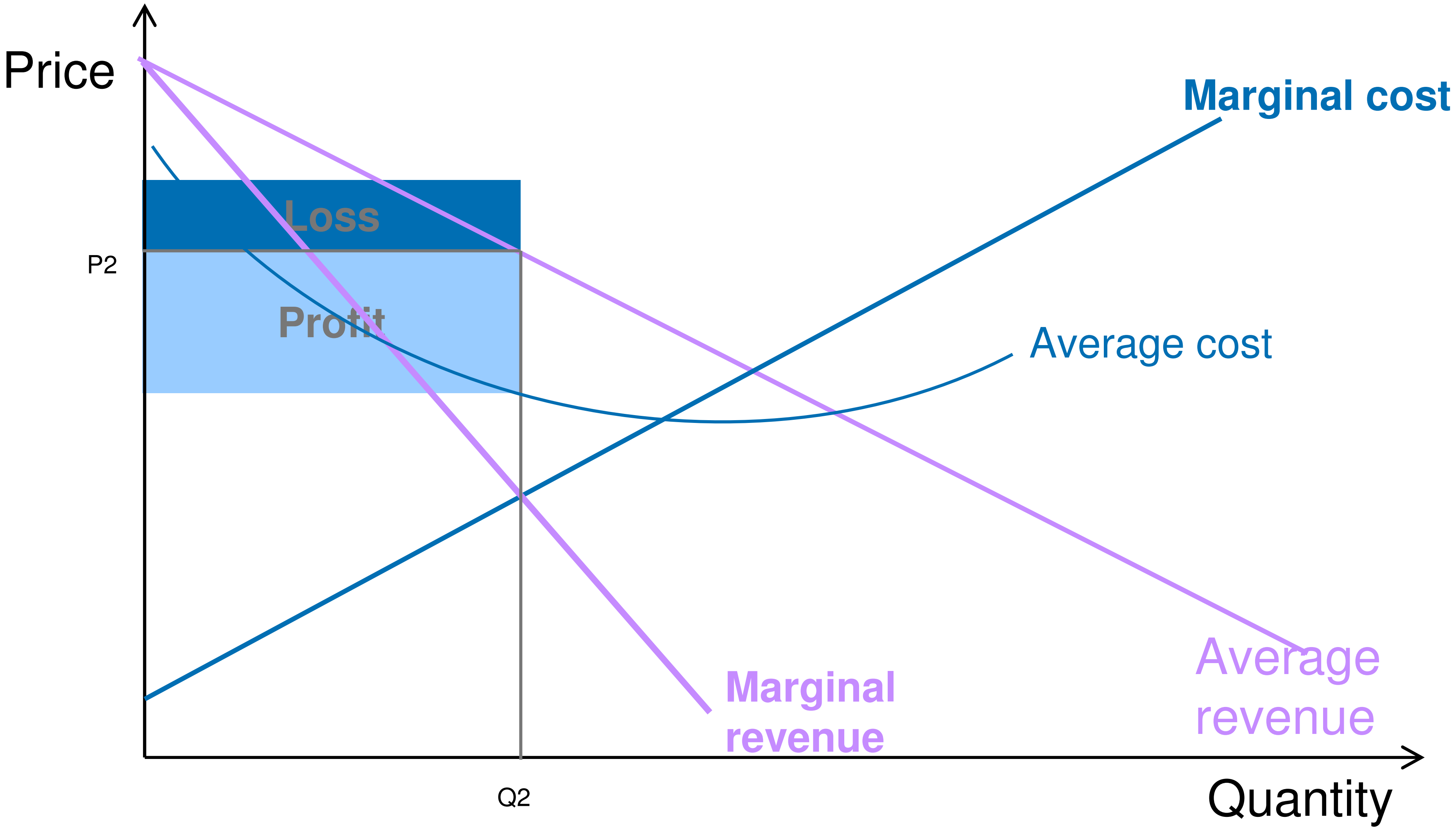

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Concluding remarks

- Governments intervene for three primary reasons
  - Economic Efficiency
  - Equity
  - Revenue Raising
- Competitive markets create efficient outcomes
  - This is achieved through the interaction of supply and demand
- However, in some cases markets fail to provide efficiency
  - Externalities occur when costs or benefits are imposed on third parties
  - Public goods will not be provided by a free market
  - Market power leads to higher prices and lower output
  - Natural Monopolies require a subsidy to provide the efficient level of output

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Any questions?