Scope and Coverage

This topic will cover:

- Market failure based cases for regulation
- Comparison of rate of return and price cap regulation
- Other issues and concerns in regulation

Learning Objectives

By the end of this topic students will be able to:

- Make market failure based cases for regulation
- Undertake a comparison of rate of return and price cap regulation
- Understand other issues and concerns in regulation

The Economic Case for Regulation - 1

- Regulation may be defined as rules by which government or government appointed agencies attempt to influence or control the activities of organisations or individuals
- Broadly the economic case for regulation stems from the existence of market failures i.e. occasions when an unregulated market fails to allocate resources efficiently

The Economic Case for Regulation - 2

- The main occasions of market failure are:
  - Asymmetric information
  - Externalities
  - Public goods
  - Merit goods and de-merit goods
  - Market power/monopoly

Market Failure – Asymmetric Information - 1

- Occurs when one side of a transaction has information not available to the other side
- Commonly regulation is used in response to this eg requiring food manufacturers to list ingredients etc in the food they sell

Market Failure – Asymmetric Information - 2

Other examples of asymmetric information include:

- An estate agent selling a house but failing to tell the interested party that the vendor will accept a lower price (due to commission)
- A car dealer might not indicate certain weakness with a car when selling it
- Doctors have greater knowledge about which medicines/treatments to recommend to patients

Market Failure – Externalities - 1

- As we saw in the last topic, externalities can be:
  - Negative i.e. when an organisation imposes costs on others as a by product of their activity e.g. pollution
  - Positive i.e. when an organisation imposes benefits on others as a by product of their activity e.g. railways reducing road congestion and pollution
  - The problem is that producers of positive externalities are not rewarded by the market for producing them, nor does the market require producers of negative externalities to bear the cost of them

Market Failure – Externalities - 2

- Regulation is only one response to the issue of externalities. For both negative and positive externalities a variety of means of intervention by government exist
- Positive Externalities
  - Subsidise private producers so they produce more products with positive externalities
  - Bring activity into public ownership so public body can pursue policy of extensive production even if not profitable

Market Failure – Externalities - 3

- Negative externalities
  - Tax producers so they bear the cost of e.g. pollution and respond by producing less
  - Regulate by e.g. imposing maximum limits on e.g. emissions
  - Cap and trade systems which identify a maximum limit on e.g. emissions but allow companies to trade permits for producing emissions amongst themselves

Market Failure – Externalities - 4

- Cost-benefit analysis can be used by regulatory bodies when making decisions about large investment projects that may produce negative externalities on the environment. These quantify both the costs and the benefits of the project in financial terms to the whole of society.

Market Failure – Public Goods - 1

- Public goods are a narrow range of goods/ services which are:
  - Non-depletable i.e. my consumption of a product does not reduce the amount left for others to consume
  - Non-excludable i.e. I cannot be excluded from consumption
  - Examples include street lighting, elements of national defence and lighthouses

Market Failure – Public Goods - 2

- The key issue with public goods is the 'free rider' problem
- Because people or organisations know they cannot be excluded from consuming or benefitting from the public good, they have an incentive to refuse to pay for it; this makes normal provision by the private sector impossible/unprofitable

Market Failure – Public Goods - 3

- Government responses to the issue of public goods include:
  - Public provision, funding the provision out of taxation which is compulsory and overcomes the free rider problem
  - Alternatively the government may pay for private sector provision, provided free at point of use but paid for out of taxation

Market Failure – Public Goods - 4

- In both the previous cases, government will estimate how much should be provided as the number of people/organisations willing to pay for the provision is not a reliable guide to the real level of demand
- There will be a role for regulation in ensuring compulsory payments are made e.g. requiring registration of ships and payment of a registration fee to fund lighthouse provision

Market Failure – Merit and Demerit Goods - 1

- These are goods or services upon which the government places a different valuation than individuals or organisations
- The government would like more merit goods to be consumed than individuals would if left to buy them in the market e.g. pension plans, insurance etc.
- The government would like fewer de-merit goods to be consumed than individuals would if left to buy them in the market e.g. alcohol, cigarettes, unhealthy food etc.

Market Failure – Merit and Demerit Goods - 2

Merit goods

- These are normally provided on a free at point of use or subsidised basis to increase take-up; this may be done via public provision of private provision, paid for or subsidised by government
- There may be a role for regulation in addition or possibly instead of this e.g. requiring purchase of e.g. pension plans or attendance at school

Market Failure – Merit and Demerit Goods - 3

Demerit goods

- These are normally taxed heavily to discourage purchase
- Again there is often a role for regulation eg concerning alcohol or cigarette advertising (may also respond to issue of asymmetric information) or sale to children

Market Failure – Market Power / Monopoly - 1

- The absence of competition means a lack of incentive to produce value for money for customers i.e. prices can be pushed up and/or quality allowed to deteriorate
- In some non-competitive situations regulation can be used to introduce, restore or protect competition e.g. by requiring break-up of monopoly companies, forbidding mergers etc.

Market Failure – Market Power / Monopoly - 2

- As we saw in topic 8, a natural monopoly exists in an industry where the minimum efficient scale is at least as big or bigger than the size of the market
- One firm producing the whole of the market output is more efficient than two firms each serving half the market - the industry is most efficiently served by a single monopoly firm
- Such monopolies have the power, in the absence of any competition, to exploit their customers

Market Failure – Market Power / Monopoly - 3

- The response to natural monopoly was traditionally for the organisation to be publically owned and pursue policies that did not seek to exploit customers
- However, privatisation policies increasingly used
- Not all elements of previous public monopolies were naturally monopolistic and therefore some could be subject to competition e.g. power transmission grids were naturally monopolistic but power generation plants were not

The Regulation of Privatised Utilities - 1

- Much of the regulation of privatised utilities arises from the fact that many (though not all) of their operations are naturally monopolistic
- There are two fundamental objectives of regulators of privatised utilities (see next slide)

The Regulation of Privatised Utilities - 2

- Attempt to create the constraints and stimuli for natural monopoly firms which competitive firms would face e.g. they put pressure on firms to reduce prices by imposing price caps and increase quality by setting performance standards and punishing for non achievement of them
- Longer term objective of actually introducing competition by lowering entry barriers etc. so eventually viable competition replaces need for regulation

Price Regulation - 1

- Two main forms of price regulation have existed:
- Rate of return regulation
  – Here a regulator sets a maximum rate of profit that it will allow a privatised firm to earn.
  – Although this limits the prices the firm can charge, it gives them no incentive to pursue cost reductions beyond the maximum profit level and also an incentive to over invest in capital equipment as the maximum allowable profit is expressed as a % of the capital employed

Price Regulation - 2

- Price cap regulation
  - This puts a limit on prices that the firm can charge, normally by imposing a formula like RPI – x
  - RPI is the inflation rate
  - x is a measure of the efficiency savings the regulator feels the firm is capable of achieving
  - Thus the formula is saying effectively other firms are putting up their prices in line with inflation; we think you can put up yours by x% less than inflation and still be in a position to make the same sort of profits as we think you can make efficiency savings equal to x

Issues With Price Cap Regulation - 1

- Provides an incentive for cost reduction as the more the firm reduces its costs the higher the profits they can earn e.g. they might be able to achieve more efficiency savings than x
- Without some quality regulation, firms might reduce costs by allowing quality to deteriorate

Issues With Price Cap Regulation - 2

- If firms cut costs a great deal they may face a bigger x next time round (the size of x is normally reviewed periodically) so they may restrict their cost reductions to encourage a looser price cap longer term
- Much of the information the regulator needs in setting x may come from the firm itself; this may reduce the regulator's independence and contribute to ' regulatory capture' i.e. the regulator ending up serving the firm's interests

Quality Regulation

- As we have seen, price cap regulation can give an incentive to reduce quality in order to reduce costs
- This can be countered by the regulator setting minimum standards of service across key elements of the firm's provision and imposing penalties upon the firm if they fail to meet them
- This ties in with the first objective of regulators as it mimics the effect of poor quality in a competitive situation i.e. it leads to lost revenue as custom is lost to competitors

Competition in Natural Monopolies

- Although conventional competition between firms is wasteful in a natural monopoly i.e. it is wasteful to have competing rail tracks or electricity grids next to each other, one can have competition for the use of the track or grid
- Thus in railways bids are held e.g. every 5 years to gain a franchise to operate trains on the track; for the periods of the franchise the winning operator has a monopoly but competition exists for the right to the monopoly, this gives some stimulus to efficiency and quality improvement to help win the bidding process

Further Issues in Regulation of Privatised Firms

- Reasonably substantial costs are incurred in running regulatory offices
- There may be a case for merging individual industry regulators into a single larger regulator gaining economies of scale and scope; it may also lead to a more consistent approach across different industries

References

- Griffiths & Wall (2010), *Applied Economics*, 11th Edition, Prentice Hall, pages 148-149
- J. Kay, 20 Years of Privatisation (Available at www.johnkay.com/2002/06/01/twenty-years-of-privatisation)

Awarding Great British Qualifications

Topic 12 - Regulation

Any Questions?