

Annex 8

Market Failure in Broadcasting

Market Failure in the Broadcasting Industry

An efficient broadcasting market?

Economic efficiency is a situation in which no one could be made better off without making somebody else worse off¹. In order for this to occur, a number of conditions need to be met.

- A particular good or service should be *produced efficiently* - a given quantity of a good of a given quality should be produced at the lowest possible cost.
- A good or service should be *used efficiently* - everyone who values a good or service more than its cost of production, should consume the good or use the service.
- *All* goods or services that customers value more than they cost to supply should be produced.

Economically efficient outcomes are generally produced by competitive markets. In a competitive market, the price of a good and the quantity of a good supplied are set by equating supply and demand. At this point, there are no potential customers who would be willing to pay more for the product than it would cost to produce additional units of the good. In addition, the value to society of consuming an additional unit of the good² is equal to the value to the individual who purchases the good, and the social and individual values of producing the good are also equal. That is, in an efficient market, the interests of the firm and society exactly coincide.

While the market functions well for allocating normal “private” goods, it does not do so for all goods. Once the economic conditions required for a free market fail to hold, market forces will no longer guarantee an efficient outcome. This may occur, for example, due to the cost or complexity of information or because natural monopoly exists due to significant economies of scale in production. The failure of free markets to function optimally provides the underlying rationale for public sector intervention on efficiency grounds³.

The potential for market failure exists in the broadcasting industry for a number of reasons.

Broadcasting is a public good

A good is “public” if providing the good to *anyone* makes it possible, without additional cost, to provide it to *everyone*. A public good has two distinguishing features - non-rivalry and non-exclusivity. The essential problem with public goods is that it is difficult to get people to pay for goods where they do not have exclusive rights to consume the good in question (non-exclusivity) and when their consumption of the good does not affect the good itself (non-rivalry). Under these circumstances, it is difficult to direct a good exclusively to the person who is paying for it - this is often referred to as the “free rider” problem. If left to the market, provision of public goods will be less than socially optimal⁴.

Intervention by public bodies to enhance the provision of public goods necessarily raises issues of cost. Whether it is national defence, street lighting or public broadcasting, such activities have to be paid for. Evaluating the extent of market failure and the resulting level of public provision requires a balance to be struck. There may be a danger that the economic costs of intervention can exceed the welfare benefits of the public activity.

Broadcasting includes many features of a public good - one person watching a television programme does not prevent others from watching the same programme. Because consumption does not reduce the amount available for others, the social value of non-rivalrous goods is given by the sum of everyone's willingness to pay, rather than an individual's valuation. The social value of a TV programme is therefore the aggregated valuation of all those people who *might* watch the programme, not just those that *do*. The public good characteristics of broadcasting therefore have important implications for the provision of broadcasting services - restricting the viewing of programmes that, once produced, could be made available to everyone at no extra cost, leads to inefficiency and welfare losses.

Quality broadcasting is a merit good

A merit good is a good whose value exceeds the valuation an individual would place upon it. Merit goods are deemed intrinsically desirable and provide one rationale for the government providing access to health care, museums and libraries, etc. The opposite to a merit good is one (for example, alcohol, addictive drugs, etc) whose consumption is generally discouraged.

Television has the capacity either to restrict or expand the knowledge, experience and imagination of individuals. If all television is provided via the free market, there is a danger that consumers will under-invest in the development of their own tastes, experience and capacity to comprehend because it is only in retrospect that the benefits of such investment become apparent.

Consumers are not fully informed

One of the key assumptions of a competitive market is that consumers are fully, indeed "perfectly", informed. This assumption is seriously flawed in broadcasting. One role of broadcasting is to inform and educate, yet the process of learning and understanding the world is part of how individuals form their preferences. These preferences cannot therefore be taken as a given in advance.

In general, markets do not always work well where what is being sold is information or experience. This is because consumers do not know what they are buying until they have experienced it, but once they have they no longer need to buy it.

Broadcasting produces externalities

Externalities are spill over effects that occur when the social costs and benefits derived from some activity are different from the costs and benefits derived by the producers and consumers of the products. Externalities can be positive or negative and can arise from production and/or consumption. Externalities lead to market failure because the full costs and benefits of an activity are not borne by the same people.

Externalities exist in broadcasting if it is assumed that television has some influence on the behaviour of the people who watch it. Because the wider social costs of programming output are not borne by the broadcaster, there may be a tendency for the market to provide more television with negative externalities than is socially optimal. Examples might include screen violence or offensive language.

Economies of scale exist in broadcasting

The making and broadcasting of television programmes has exceptionally high fixed costs and very low marginal costs - it costs no more to make a programme available to extra people (within range of a given transmitter system). This phenomenon (termed economies of scale) makes it difficult for new firms to enter the broadcasting market and therefore results in a highly "concentrated" industry - a high percentage of total programming output is accounted for by a few providers.

Spectrum scarcity

In the past, spectrum scarcity has placed a technical limit on the number of television services able to be provided by the broadcasting industry. This limited competition and created a natural monopoly environment without freedom of entry. Spectrum scarcity, along with the arguments discussed above, provided the underlying rationale for public sector intervention in the broadcasting industry.

The establishment of a publicly owned broadcaster, in combination with regulation of the private broadcasting market through a variety of rules, has ensured the provision of free-to-air broadcasting in the UK which does not exclude people on the basis of ability or willingness to pay and the provision of certain types of welfare enhancing programming that the market alone would not provide. It is sometimes argued that a public broadcaster is more likely to be willing to innovate, take a long term view, and invest in training (which benefits the whole industry) than its private sector counterparts.

Will market failure persist with new broadcasting technology?

New technology is rapidly moving broadcasting into an apparently far more competitive and market driven environment. Within a few years, it is likely that digital broadcasting will be providing consumers with a choice of several hundred channels. In addition, the Internet provides the scope for interactive television and the capacity to order programmes as and when required. Many believe this new environment should lead to a highly competitive broadcasting market, where it is possible to sell programmes like any other good or service and where there is little scope or need for public policy beyond minimal regulation to uphold standards of taste and decency.

While it is true that the disappearance of spectrum scarcity will increase the number of channels, it does not automatically follow that the number of broadcasters will also increase or that the market on its own will produce all that is desired by individual consumers or society. There is a strong case to suggest that market failure will persist in the new environment. With the exception of spectrum scarcity, the arguments discussed above, which led to the current combination of regulation and public service broadcasting, still hold. Furthermore, economic

theory suggests that, rather than removing the case for public service broadcasting, the commercial pressures and globalisation that are reinforced by digital technology, could *increase* the need for such a broadcaster.

Over-concentration in the market - the risk of private monopoly

Digital technology creates strong pressures toward a broadcasting industry where ownership is concentrated.

- **Economies of scale will remain** - Many argue that the new technology is lowering entry costs (in particular, equipment costs) and therefore the broadcasting market will become more competitive. However, the fixed costs of transmission are likely to be large and, more importantly, for quality programming the real cost of talent and desirable content is rising quickly. The technical change in delivery is enhancing this phenomenon - more channels with multimedia companies operating on an increasingly global basis is generating greater competition for services which are already in short supply.
- **Economies of scope will increase** - Digital information can be endlessly edited, copied and merged with other information and can reappear in many formats. The digitisation of information is therefore increasing economies of scope in the broadcasting market, which explains the large number of multimedia mergers observed in recent years.
- **Bottlenecks may exist in gateways** - New technology is increasing the means by which broadcasting can be delivered as well as the number of channels that can be carried by each of these means. In the future, all digital signals will have to pass through a set-top (or built in) box which provides a gateway for the signals and will control access and payment (where applicable). This represents a powerful gateway, especially as it is likely that consumers will only be willing to buy one. If this is the case, then despite the increase in the number of delivery systems, there will only be a single point through which every digital channel from every broadcaster has to pass.

High quality programming can still be produced in the digital era and yet cost very little per unit provided it reaches a large number of people and/or provided it is used in a variety of formats. However, the exploitation of these economies of scale and scope increases pressure toward concentration of ownership. Therefore, although the new technology has removed one source of monopoly, spectrum scarcity, it has replaced it with another, the natural monopoly of economies of scale. Rather than promoting free competition, there is a risk that the digital era will foster high concentration in private broadcasting.

Increased audience fragmentation

Experience to date has shown that increasing the number of available channels does not increase the amount of time consumers spend watching television. Further increases in the number of channels available are therefore likely to result in greater fragmentation of audiences as the audience per channel or per programme decreases. Because minimum cost production in broadcasting is high, audience fragmentation is likely to increase average costs.

Negative externalities may increase

As previously discussed, the wider social costs of programming are not borne by the broadcaster which may lead to more TV being produced with negative externalities and less TV with positive externalities than is socially desirable. With expanding numbers of channels in the digital era, it may be substantially more difficult for regulators to ensure that programming standards are upheld.

It is not intended to suggest that dealing with market failure, in broadcasting as in other industries, is a straightforward matter. Where there is imperfect information or a restricted set of policy instruments, there may be limits to what can be achieved through intervention. More specifically, in trying to deal with one source of market failure (e.g. 'bad' externalities in broadcasting) other problems may be created (such as monopoly power, or loss of freedom).

Programming in a free market

The nature of a broadcaster's funding mechanism will tend to determine its programming incentives. Assuming that broadcasters operating in a free market are funded⁵ through either Pay TV (subscription or pay per view), advertising or sponsorship, economic theory suggests that not all types of desired programming would be provided.

Programmes provided via advertising funding

The customer for a broadcaster funded through advertising is the advertiser - not the viewer. The incentive on the broadcaster is therefore to deliver the largest possible audience at the lowest possible cost, as this will maximise advertising revenue and profits. Because the broadcaster is not concerned with the value consumers place on a programme, advertising funding tends to encourage the production of programmes with shallow but wide appeal - for example, a game show or sitcom would be shown in preference to a news programme, classic serial or a listed sporting event - especially at peak viewing time.

Other types of programmes are likely to deliver audiences (and therefore advertising revenues) which are too small. For example, programmes which are highly valued but by small audiences, such as specific sporting events, cultural events or quality series, would not be shown. This becomes increasingly likely in the new technology, as fragmenting markets will tend to reduce the average size of audiences per channel or per programme. The impact may be that advertising is less likely to be used to generate income or that it becomes more focussed with advertisements reaching a smaller, but more targeted, audience.

Programming via pay TV funding (subscription or pay per view)

To a certain extent this market failure can be corrected through commercially provided Pay TV, because it enables the profitable production of the types of programme which small audiences value highly and are prepared to pay for. It is likely however, that Pay TV would still fail to produce programmes which have a wide appeal and are valued highly, eg certain sporting events, news programmes and classic serials. This is because it is difficult for the commercial broadcaster to maximise revenue for this type of programme - if a high price is charged, revenue is lost by excluding the large number of people who would pay a moderate price, and if a moderate price is charged a large amount of potential revenue from those people prepared to pay

a higher price has been lost. If the programme is expensive to make, it may not be made in a market funded by Pay TV, even if the total value of the programme is well in excess of the cost of making it.

The fundamental problem, which will persist with new technology, is that in charging for any broadcast program the cost of serving the additional viewer is zero, and therefore *any* charge will exclude viewers whose enjoyment exceeds the marginal cost of providing it.

In the UK, the tendencies described above have been tackled partly through content regulation of the commercial sector, with programming requirements imposed on the relevant networks. In an unregulated free market, however, analysis suggests that broadcasters funded through Pay TV, subscription or advertising may be unlikely to provide enough programmes that are valued highly and appeal to a wide base of consumers. In addition, there would not be strong incentives in place to provide special interest programmes that are valued positively by many people (and valued highly by some). In contrast, a publicly funded broadcaster will provide *all types of programmes* because it is concerned with whether the social value of a programme justifies its cost not whether the cost will be covered by advertising or subscription payments.

Implications for broadcasting in the future

Economic theory suggests that private markets in the new digital broadcasting industry could fail on their own to produce the overall quality of broadcasting that consumers either individually or collectively would desire. Furthermore, there is a danger that if broadcasting were left entirely to the market the industry could become excessively concentrated.

Equally, the deficiencies in the market cannot be filled just by negative regulation as the new technology makes regulation, especially content regulation, less effective. For these reasons, it has been argued that public policy in the broadcasting industry requires a positive force that would:

- act as a counterweight to the private concentration of ownership
- provide a centre of excellence which both makes and broadcasts programmes
- be large enough to influence the market and so act as the guarantor of quality
- widen choice both now and in the future by complementing the market through the pursuit of public service purposes.

Public service broadcasting, acting as a complement to the commercial sector, would provide this pressure. Therefore, while a public broadcaster has no *right* to exist, there are *purposes for its existence*. Furthermore, rather than removing the case for public service broadcasting, there is a possibility that digital technology may even increase the need for such a broadcaster.

Endnotes

1. The allocation of resources between individuals beyond this point raises equity and redistribution issues, rather than efficiency issues.
2. Assuming all goods are “private”.
3. Intervention for reallocative and equity issues is a separate matter
4. Public goods were first discussed by Adam Smith over 200 years ago. However, the terms of the modern discussion were set by US economist Paul Samuelson.
5. It is possible that PayTV will provide the greatest source of revenue for commercial broadcasters in the digital era. However, targeting specific advertising or sponsorship to niche channels or types of programming (for example, children’s advertisements on a digital Children’s station or beauty products to a soap series) may provide alternative sources of funding

This Annex draws heavily on the following sources:

- A. Graham and G. Davies; *Broadcasting, Society and Policy in the Multimedia Age*; 1997
- C. Koboldt, S. Hogg & B. Robinson; ‘The Implications of Funding for Broadcasting Output’. In A. Graham et al; *Public Purposes in Broadcasting: Funding the BBC*; 1999

