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Introduction: the future of economic regulation in broadcasting markets

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THIS book is about how the dramatic technical changes impacting the nature of broadcasting are affecting, and should affect, our ideas on the role of public economic regulation of the markets in which broadcasting transactions take place. Broadcasting used to be considered a classic public good, in that it was impossible to exclude viewers who had not paid.¹ There were two solutions to the public good problem: one was public provision, nearly always by a publicly owned and funded organisation such as the BBC; the other, often coexisting with the former, was private provision funded by advertising revenue. In addition, scarce spectrum capacity and high fixed costs of programme making ensured that in many countries there was little competition between channels. And there was little direct competition, likewise, between broadcasting and other forms of information transmission, such as newspaper publishing or the commercial cinema.

The rapid evolution of broadcasting technology, and especially the move from analogue to digital means of processing and transmission, has transformed the landscape of broadcasting beyond recognition. The main features of the new landscape are as follows:

- Broadcasting signals can now be encrypted, meaning that exclusion of non-payers is possible for the relatively small cost of a set-top box. Radio broadcasting remains free but that is because of listeners' relatively low willingness to pay; television broadcasting has to all intents and purposes ceased to be a public good, except where the authorities (or private benefactors) choose to supply it on terms appropriate to a public good.
- Digitisation of the signal has enabled much greater compression of content into the available spectrum. Spectrum scarcity is no longer a significant constraint upon entry into broadcasting markets.
- Digitisation has also enabled the characteristics of the content that viewers care about – quality, timeliness, richness of multi-media representation and so forth – to depend less on the particular

platform by which the content has been transmitted. Satellite transmission competes directly with cable; the same content can be transmitted to television receivers, to computers and increasingly to mobile telephones. Internet sites make available multi-media content that is increasingly similar to that available from traditional broadcasters – and indeed more and more broadcasting channels use their websites as portals both to attract viewers and to provide them with complementary sources of content.

- Processing and transformation of content by final consumers has become much more sophisticated as computers and other kinds of digital processing equipment (DVD recorders, for instance) have become widely available to households. This means that copying is easier, which raises issues about piracy (so that just as exclusion of non-paying viewers at time of first transmission is becoming easier, exclusion of non-paying viewers at subsequent times is becoming more difficult). It also means that some kinds of bundling of content are becoming harder – specifically those that rely on bundling attractive content with unattractive content such as advertising. Consumers who wish to view a programme without viewing the advertising can increasingly find ways to do so, which renders infeasible certain ways of financing content production and transmission.
- Finally, the falling costs of computing and other forms of information processing have dramatically lowered the purely technical costs of programme making – those that arise from the cost of equipment required to take and manipulate sounds and images. This does not mean that the total costs of making programmes of a given type have necessarily fallen, since the total includes two other kinds of costs: first, the remuneration of the artists and the other subjects (such as the locations) and second, the costs of special effects and other programme elements whose novelty often requires an escalation of sophistication that compensates for the falling costs. However, it does mean that the basic entry barriers to certain kinds of programme making (art-house movies, quiz shows) have fallen significantly.

These changes have important implications for regulators. First, there is no longer any case for treating broadcasting as a pure public good. If certain kinds of broadcast (radio, for instance) are still provided like public goods, it is because the broadcasters have not thought it worth investing in technologies of encryption; when the value of the content to consumers is high enough, encryption technologies will be

used. Second, due to the fall in certain kinds of entry barriers (the technical cost of making basic programmes and the cost of spectrum acquisition) and to the increasing substitutability between content delivered by different platforms, all countries can expect to see a more competitive and diverse market for broadcast content than has been possible at any previous time. However, this does not mean that regulators now have nothing to worry about. There are several reasons why they should be concerned:

1. Encryption works well for some kinds of content but not for all. Specifically, encryption works well for content whose value to the consumer decays rapidly with time: football matches between leading clubs, for instance. The longer the content retains its value, the more likely it is that consumers will find ways to copy it and re-transmit it to others. This is likely to reduce the rents that can be appropriated by the producers of content with lasting value and increase the value that can be appropriated by producers of ephemeral content.
2. The fact that it is increasingly difficult for producers to exploit market power arising from the ownership of physical means of transmission does not mean that market power is no longer an issue; rather, it may be an issue when it concerns producers that can corner the market in certain kinds of scarce content – the kinds that consumers are willing to pay for. Also, some kinds of content are strongly complementary to others (for instance, it is said that the willingness of viewers to pay high subscriptions to cable services depends on the bundles containing a certain amount of such premium content as top-league football matches and recently released Hollywood movies), which can give the owner of the complementary content a good deal of market power. These considerations mean that the authorities may need to be vigilant about market power coming from different sources to those that have traditionally been of concern.
3. Even though producers may be able to use exclusion technologies to appropriate more of viewers' willingness to pay, their customers' viewing decisions may have significant consequences for other producers due to scale economies, or for other consumers due to a broad range of externalities (which we consider in point 4 below). Scale economies may imply that when a large number of consumers choose to watch a certain broadcast or subscribe to a certain

channel, its producers can invest more in certain quality components (such as special effects) which make it harder for small-scale producers to compete. As a result, it may be difficult for more than a few producers to have a conspicuous presence in the market, even if technically it is possible for many producers to be present in it. In turn this can lead to the emergence of some new kinds of market power – for instance, viewers may have a large choice of programmes, but the fact that they bunch in their choices may mean that advertisers have few channels to choose between.

4. The viewing decisions made by consumers may have all kinds of external effects on behaviour and welfare of society at large. They may affect how consumers vote, take part in political debates, approach their education and their absorption of other sources of information, behave towards each other on an everyday level, contribute to the broader welfare of their communities or nations, or feel about outsiders (such as immigrants or residents of foreign countries with whom their own country has important commercial, political or military relations). These kinds of effects are potentially very important but extremely hard to pin down in a specific empirical way. There is no shortage of convinced and often convincing advocates of theories about the systematic effects of broadcasting viewers' decisions (see Sunstein, 2001, for one particularly influential argument to the effect that the internet and the increasing competition among information media are breaking down the sense of community that is necessary to the happy functioning of political and social life). These arguments will no doubt continue for a long time, though there is too little hard evidence about the nature of such external effects for anything like a system of broadcasting regulation to be based upon them. The best we can say is that their likely importance, as well as the high degree of uncertainty surrounding them, means that the evolution of broadcasting markets, and the nature of broadcasting regulation, will be watched and discussed in our political and social life with an enthusiasm and a passion that exceeds what we can expect from almost all of the other markets in which economic regulation is a concern.

This book makes a contribution to that discussion. Without any pretence to comprehensiveness, we have collected essays from a range of distinguished contributors, both academic researchers and competition policy practitioners, on important topics relating to the future of

broadcasting regulation. The focus is upon economic regulation rather than the regulation of other aspects of broadcasting such as regulation of content. We have not sought to cover all of the externalities mentioned in item 4 above – not because we believe them to be unimportant but because we ourselves do not have the evidence that would enable us to deal with them adequately.

Chapter 2, by Colin Rowat, undertakes a comparative summary of the state of broadcasting regulation in the OECD, considering both economic and non-economic criteria. It then outlines some of the heterogeneity in adoption rates of new communications technologies across the OECD (such as the penetration of broadband internet access and high-definition television). Finally, it offers some hypotheses to explain the substantial variation in both investment and penetration observable across OECD countries. The chapter underlines just how much variety there is in the regulation experience of different countries and, therefore, how much we can learn from the experience of those countries about the merits and shortcomings of the various approaches to the regulation of this complex and fast-evolving sector.

The remaining chapters are divided into two broad groups. The first consists of chapters examining questions of principle in broadcasting regulation. Chapter 3, by Paul Seabright and Helen Weeds, considers where the scarce assets are located in the broadcasting sector and what are the lessons for public interventions to prevent the abuse of market power. It focuses on what makes broadcasting different from other sectors and on the way in which recent technological developments such as digitisation may be changing the nature and distribution of scarcity rents. The chapter goes on to look at a number of challenges for competition policy, including such issues as market definition, exclusionary practices and bundling, matters that have been brought to the fore in recent antitrust developments. It suggests that the risks attendant on these practices may be somewhat different from those that have traditionally been emphasised and proposes rules of thumb to help identify the circumstances under which they are most likely to lead to a consolidation of market power.

Chapter 4, by Mark Armstrong and Helen Weeds, looks at the impact of technological changes in broadcasting on the rationale for public service broadcasting, along the lines exemplified by the traditional Reithian model for the BBC. It argues that the case for this model of public service broadcasting has largely disappeared. This is partly

because there is less need for public service broadcasting in a world where encryption enables broadcasters to appropriate more of the benefits created by their activity. It is also because even if it would be desirable for viewers to watch a different mix of programmes from those a competitive market would provide, public service broadcasting may be an increasingly ineffective means of making them do so. Public provision may ensure that programmes are made but it cannot ensure that anybody watches them. Nevertheless, the chapter identifies a number of areas in which market competition may fail to deliver desirable outcomes in broadcasting and discusses public service broadcasting and some alternative policies as responses to such failures.

Chapter 5, by Michele Polo, considers a particular source of concern about the outcomes of unregulated market competition – namely whether this process does enough to ensure pluralism in the viewpoints represented in the media. It proposes a double definition of pluralism with respect to political opinions and viewpoints: there is *external* pluralism, when the market as a whole displays a sufficiently diverse set of views, and *internal* pluralism, when individual media firms provide access to a sufficient diversity of views. The chapter concludes that unregulated competition may fail to provide adequate safeguards for pluralism under either definition and discusses some possible regulatory mechanisms that may compensate for this failure. It argues that authorities independent of the government are necessary to ensure pluralism.

Chapter 6, by Simon Anderson, looks at the role of advertising in funding broadcasting and examines the nature of and rationale for regulation of television advertising. Such regulation typically covers both the time devoted to commercials and restrictions on the commodities or services that can be publicised to various audiences (stricter laws often apply to children's programming). Time restrictions (namely advertising caps) may improve welfare when advertising is overprovided in the market system. Even then, such caps may reduce the diversity of programming by curtailing revenues from programmes. They may also decrease programme net quality (including the direct benefit to viewers). Restricting advertising of particular products (such as cigarettes) probably reflects paternalistic altruism, but restrictions may be less efficient than appropriate taxes. Overall, Anderson's chapter is a timely reminder that even if advertising may be perceived by some as a nuisance, it exists in a market framework because it makes possible other benefits (such as investment in programming quality).

Proposals to limit advertising therefore need to consider alternative ways of funding investment or at least to examine carefully the consequences for overall quality and quantity of programming if such revenue sources are no longer to be relied upon.

Chapter 7, by Elena Argentesi and Marc Ivaldi, is the last in the section on general principles of broadcasting regulation. It considers the issue of how to define markets (and consequently how to evaluate the effect of the presence of substitute products on the existence of market power) when the markets in question are what is sometimes called *two-sided*. Many broadcasting markets are two-sided in the sense that the attraction of a programme to advertisers depends on how many viewers are likely to be watching, just as the attraction of a programme to viewers may depend (probably negatively) on how many advertisements there are. The chapter presents an econometric methodology which will be of considerable importance in enabling competition authorities to define markets and assess market power. Though the particular data are drawn from the print media, the methodological issues are broadly similar to those in broadcasting and the chapter will be an important reference for future empirical work in this area.

The last section of the book, on institutional approaches, contains three chapters. Chapter 8, by Peter Alexander and Keith Brown, examines broadcasting regulation in the United States, with particular reference to the role of the Federal Communications Commission in pursuing public interest objectives. It has interpreted this role as implying the balancing of three, sometimes conflicting, objectives: competition, localism and diversity. The authors illustrate with a rich range of cases the kinds of conflict that can arise between these objectives and the authorities' different responses to these conflicts over recent years.

Chapter 9, by Pierre Buigues and Valérie Rabassa, examines the role of the European Union in regulating the media, focusing particularly on the way in which the European Commission regulates competition in the media, subject to various public interest objectives which concern the Member States. The Commission has been particularly alert to concerns about exclusionary conduct in the market for certain kinds of content and the history of Commission intervention illustrates a significant evolution in the arguments and justifications that have been advanced for regulatory action.

Finally, Chapter 10, by Einar Hope, looks at the relationship between general competition regulation and sector-specific regulation

at a national level, with particular emphasis on the approach adopted by the authorities in Norway. The chapter presents a broadly optimistic view arguing that general competition regulation can gradually replace many of the diverse interventions that have historically been undertaken in pursuit of objectives that are specific to the broadcasting sector. Whether or not its readers are persuaded, this chapter focuses on what is at stake when considering whether the general tools of competition regulation can do what is needed for broadcasting regulation.

What exactly *is* needed for broadcasting regulation remains, of course, one of the important unsettled questions in this area. There is much less agreement about what would constitute a healthy broadcasting sector than there is about other sectors of the economy such as manufacturing industry, financial services or even agriculture. In fact, of all the sectors in which questions of economic regulation arise, perhaps only the health care sector is characterised by as much fundamental questioning of aims and values as is routine in discussions of broadcasting. We have not done more than scratch the surface of these questions in this volume, but we hope to have illustrated that even the modest tools of economic analysis can yield real insights when applied carefully and rigorously to this important area of social activity.

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Reference

Sunstein, Cass (2001) *Republic.com*, Princeton, Princeton University Press.

Note

1. In principle the authorities could prosecute those who had purchased a television set without a licence, but exclusion by programme was not possible.

2 *Technological and regulatory developments in broadcasting: an overview*

COLIN ROWAT *

2.1 Introduction

I coined the word cyberspace in 1981 . . . At the time, I didn't have a very clear idea of what I was going to try to make it mean . . . Actually I think it was probably more fun for me when I was still able to look at it and wonder what it meant . . . When I started writing . . . the absolute top of the line professional writing machine in the world was an IBM Selectric with a couple of type balls, and that's what everybody aspired to. But I could never have afforded one of those things. Today those things are like landfill. Literally. I've seen fifty working Selectrics piled up like dead cockroaches in the back of a university clearance warehouse. (Gibson, 1996)

William Gibson's achievement – discovering cyberspace from a 1933 typewriter while dreaming of a Selectric – is nothing more than that constantly required of those regulating communications today. When a sexually explicit film made on a mobile phone in Delhi is sold over the Indian subsidiary of eBay and burned onto CDs around the world, who is responsible for its regulation and what standards should they apply?¹ And this is an easy question: we can describe it; it involves technology already in existence. Regulators have always faced the problem of regulating for a future that does not yet exist, but that future is upon them much more quickly than it has been in the past.

One particular challenge for regulators has been platform convergence – the increasing substitutability between platforms for data delivery, whether 'plain old telephone service' (POTS) lines, cables originally laid for television or even mobile platforms. This has obvious implications for regulators: regulation that is stricter for one platform will simply be ignored by users, who will switch to more leniently regulated platforms. It also raises the threat that a monopolist on one platform may be able to dominate a unified market as well.

This chapter first surveys telecommunications and broadcasting regulation across the Organisation for Economic Co-operation and

Development (OECD). It then turns to the extent to which new technologies have been adopted across the OECD and attempts to explain these by reference to their regulatory environment.

2.2 Broadcasting regulation

Regulatory issues arising in broadcasting may be divided into economic issues, often related to competition, and non-economic issues of public policy. These latter include issues of content (e.g. promotion of public service or cultural messages, protection of minors, controls on advertising) as well as access (typically universal access). This section outlines key features of each within the OECD. In both cases, in spite of considerable national variation, two international organisations have been driving harmonisation within the OECD, the European Union and the WTO.

Within the EU,² three bodies of law are relevant: generic competition law, sector-specific competition regulation and content regulation. This last is particularly relevant to broadcasting.

The principal basis for the EU's generic competition law is Articles 81 and 82 of the EC Treaty. These are largely reactive *ex post* instruments designed to be applied to market conduct. As such, they are 'hands-off', light regulatory instruments. The exception to this are the merger control provisions: given the huge costs associated with mergers, these contain more interventionist *ex ante* provisions.

Article 81 disallows any agreements which, either by design or otherwise, restrict or distort trade. These include agreements on pricing, exclusionary or shared access to facilities (including technical standards) and market sharing. The Article also allows exemptions, as well as for the Commission to assess the merits of individual cases. For example, in 2002, T-Mobile and VIAG Interkom successfully appealed to the Commission to allow them to share infrastructure in order to help them more rapidly provide new services to consumers.

Article 82 prohibits the anti-competitive abuse of a dominant market position. In addition to prohibiting pricing strategies such as predatory pricing and cross-subsidisation, Article 82 requires that access to 'essential facilities' – those without close substitutes – be granted. This, clearly, is particularly relevant to broadcasters, often dependent on expensive infrastructure.