

Broadcasting Planning and Entrenched Protection of Incumbent Broadcasters

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Executive Summary

Broadcasting planning and licensing should be primarily a technical function facilitating orderly operation of broadcasting services. Instead, policy makers and regulators have used it as a tool for economic control of the nature and rate of development of broadcasting services, promoting private interests ahead of the public interest. The recent decisions on digital broadcasting are yet another example of the protection extended to private interests with little concern to its effects on social welfare.

The current broadcasting planning and licensing arrangements are highly biased in favour of incumbent broadcasters and severely restrict new entry competition. The major reasons for this include:

- conservative and restrictive interpretation of planning and licensing provisions;
- technical criteria that are weighted against intensive use of spectrum to provide more services;
- allocation of channels that discriminates against demand for additional services in larger cities;
- allocation decisions that rely heavily on information in submissions by vested interests rather than on independent analysis of demand;
- undue concern by the regulator with issues of commercial viability of services that should be left to markets to determine; and
- apparent bias towards allocating scarce and highly valuable spectrum to community radio use likely to generate benefits of low or uncertain value.

Broadcasting planning and licensing should concentrate on facilitating orderly operation of broadcasting services rather than being used as a regulatory mechanism to restrict the operation of a legitimate commercial activity. The efficiency of spectrum planning and licensing could be improved by:

1. The broadcasting spectrum not being managed differently from the rest of the radiofrequency spectrum. As a scarce resource, it should be applied to the most valuable uses as determined by the market and not by regulators attempting to outguess the market. All the spectrum not set aside for national and community services should be allocated by auction to the highest bidders.
2. Broadcasting licence fees should reflect the scarcity value and the amount of spectrum used.
3. Licences to conduct a broadcasting business should be separated from spectrum property rights and should be issued separately. These licences should be concerned only with the social obligations of broadcasters.
4. Broadcasters should not be extended any special protection from competition. The market should be allowed to determine the number of commercial broadcasters.
5. The amount of spectrum allocated to community broadcasters should be determined after extensive cost-benefit analysis of the benefits accruing to society.

Broadcasting Planning and Entrenched Protection of Incumbent Broadcasters

Introduction

The public interest has seldom been a priority for policymakers and regulators responsible for the planning and licensing of broadcasting services in Australia. Apart from the early days of radio—when new entrants were actively encouraged to take up licences for the provision of new services—policymakers and regulators have repeatedly put the interests of incumbents ahead of those of new entrants and consumers. Although the announcement of policies is invariably dressed up in rhetoric which pays lip-service to the public interest, claims that the community is well served by policy simply do not stand up even to minimal objective scrutiny. Most of the significant policy changes since the Second World War have been shrouded in controversy. The recent decisions on the introduction of digital television are merely the latest manifestation of an ongoing pattern whereby coalitions of powerful political and media interests endeavour to protect private interests without much concern for the effects on social welfare.

The principal function of planning and licensing has always been to facilitate orderly operation of broadcasting services. Although this is primarily a technical function, policymakers and regulators have turned it into a tool for economic control of the nature and rate of development of broadcasting services. Indeed, there is considerable evidence, over many years, that policymakers and regulators have been ‘captured’ by commercial and political vested interests and have used this function to promote private interests ahead of the public interest. The history of Australian broadcasting is littered with examples of costly mistakes by governments intent on protecting the private interests of established broadcasters with little consideration of market forces and consumer demand. As a result, the Australian public has regularly been denied access to popular services that people in other countries had been enjoying for many years.

With digital transmission technology, the broadcasting industry is at the threshold of massive change. The introduction of digital technology is much more than a change in the way broadcasting signals are delivered. When digital conversion is completed in a few years, the television industry will be completely different from what it is today and will have the capacity to supply a much broader range of services. The conversion presents enormous opportunities for the development of efficient, market-oriented industry structures that maximize economic and social benefits to society. The current, highly prescriptive licensing policies—protecting as they do the interests of commercial broad-

casters at the expense of everyone else—need to be changed to avoid waste and to ensure that the industry is not encumbered with inefficient structures for decades to come. Now is the time to rethink the digital television and datacasting decisions and do away with their highly protectionist mechanisms rather than place a burden on future policymakers to correct what will undoubtedly prove to be very expensive mistakes.

Orderly management of the broadcasting spectrum is not a unique problem. It faces the same technical and property rights issues as orderly management of the broader radiofrequency spectrum of which it is a part. There is no reason why the approach so successfully used for the allocation of spectrum to telecommunications service providers could not be used equally efficiently to allocate the broadcasting spectrum. Policymakers and regulators should stop trying to outguess market outcomes and should allow the market to do that at which it is best. A pro-market approach to planning and licensing of the broadcasting spectrum would ensure that maximum possible use is made of a highly valuable scarce resource and that the available licences are allocated to the most valuable economic and social use. This paper highlights the inappropriate use of regulation in broadcasting planning and argues for a system where planning decisions are driven by market incentives rather than by regulators exercising their judgments about market developments.

History of Failure

Broadcasting planning and licensing in Australia have a very poor record. Their history is one of inappropriate use as a *de facto* constraint on increased competition to protect the interests of incumbent broadcasters rather than to promote the public interest. Although several controversies have erupted on occasions when public dissatisfaction with the 'institutionalised' protection became extreme, the remedies that followed have typically been short-lived. It is almost beyond belief that generation after generation of policymakers have allowed this extraordinary protection of incumbent commercial broadcasters to continue for three-quarters of a century, particularly when assistance to other industry groups has been greatly reduced.

The protection of incumbent broadcasters is deeper than what might be expected from industry capture of regulators. Our political system gives the ultimate power for the licensing of broadcasting to politicians whose own short-term interests are more likely to be better served by keeping powerful media proprietors friendly. Fearing a political payback, politicians have been reluctant to introduce policies potentially detrimental to the commercial interests of established players. The recent decisions on digital television and datacasting provide a vivid contemporary example of such behaviour. At the same time, regulators have felt compelled to act in accordance with the perceived

wishes of their political masters. To do otherwise would run the risk of being criticized or overruled by the politicians, as happened on the rare occasions when regulators attempted to exert a degree of independence in their operations. There is no question that political influence has played a major role in the planning and licensing decisions of broadcasting regulators. Myles Wright, chairman of the Broadcasting Control Board (ABCB) between 1966 and 1976, for example, readily acknowledged that the Board's plans were 'very substantially influenced by political considerations' (Armstrong, 1979).

Search for the Public Interest

Discussions of the 'public interest' that commissions are supposed to seek frequently seem unreal. Usually, the public interest is conceived as a balancing by a commission of the interests involved in regulation. In its search for an equilibrium among the interested parties, it is assumed that a commission will be guided by its legislative mandate. Unreality begins to creep in, however, as soon as it appears that the commission's enabling statute may in fact provide only the most general guide to the goals of regulatory policy. Left largely to its own resources, which are apt to be weak relative to the strengths of the organised parties, a commission will probably be guided by dominant interests in the regulated industry in its formulation of the public interest. Thus the public interest may become more private than public

How shall the commission define the public interest in the light of dominant factors in a regulatory situation? The private parties compete for the right to identify their respective interests as the public interest. The commission must determine the weight which should be given to the rival demands and the extent to which governmental power and authority should be used to modify relationships among major groups in a regulated industry. Lacking effective and continuing political support and faced with organised opposition of the parties in interest, a commission finds its survival as a regulating body dependent heavily on its facility in reaching a *modus operandi* with the regulated groups. The principal condition of its survival may be its willingness to accept the statement of the parties in interest concerning the nature of the regulatory problem and the way in which the demands of the rival parties should be resolved. The limits of regulatory policy tend to be set by the acceptability of regulatory policies to the dominant parties of interest.

Extract from: Bernstein, M.H., (1955), *Regulating Business by Independent Commission*, Princeton University Press, Princeton, New Jersey, pages 154–56.

Apart from the pioneering days of radio when commercial broadcasters required substantial encouragement to invest in an unproven medium, demand for broadcasting licences has always outstripped supply. The supply was unnecessarily restricted by the licensing authorities, not because of technical constraints but primarily because of commercial considerations. Cole (1966) was the first to expose the ongoing but unsubstantiated claims by the then regulator that expansion of radio services in Australia had been held back by spectrum shortages. Cole quotes testimony to the Joint Parliamentary Committee on Broadcasting from both the Postmaster-General's Department and

the Federation of Commercial Broadcasting Stations acknowledging the technical possibility of accommodating several hundred stations on the available spectrum as early as 1942. The regulatory authorities, however, persevered with the baseless claim that spectrum shortage was to blame for no growth in metropolitan radio for another 30 years.

Finally, in 1974, after widespread criticism, the ABCB was forced to make the embarrassing admission that it was possible to double the number of AM radio stations by the simple expedient of changing planning policy parameters (Minister for the Media, 1974). Momentous as it was, even that admission continued to conceal the much larger capacity for services that could have been possible by more efficient use of the available spectrum. For example, regulatory authorities in the United States and Europe were able to accommodate up to twenty times more stations even though they were faced with tighter constraints on the use of the same spectrum. In Australia, the ABCB's planning criteria appeared to have been focused exclusively on a high degree of technical excellence without regard for the considerable benefits that the community would have gained from more services. Indeed, in 1973, the ABCB publicly boasted about the 'superiority' of its planning approach:

Because of our remoteness, and the consequent lack of interference from other countries, Australia and New Zealand have been able to share the whole of the 100 medium-frequency channels among 200 stations; with central planning this has provided a service much superior to that in the U.S.A. or Europe, (each with about 4,000 stations) (ABCB, 1973:20).

Major Controversies

The development of Australian broadcasting has a disgraceful record of attempts by policymakers and regulators to burden major development initiatives with ill-conceived and inefficient schemes. Typically these actions have been motivated by a desire to insulate incumbent operators from increased competition. The results have generally been disastrous and in some cases have subsequently required costly remedial schemes. For example, the short-sighted decision to use the international VHF FM band to accommodate television services in the early 1960s necessitated their costly relocation to other spectrum bands when FM radio was introduced. While there are many broadcasting policy decisions that have generated considerable controversy, three in particular have received widespread condemnation.

FM Radio Decision

FM radio has operated in the United States since 1940, but was not introduced in Australia until 1974, even though considerable unsatisfied demand for new radio services had existed for decades. Interest in FM radio had been quite strong, with experimental

stations being established in Sydney and Melbourne as early as 1947, and subsequently in Brisbane and Adelaide. Indeed, in 1948, the Government announced its intention to use VHF FM for the provision of additional ABC services and to prohibit its use for commercial services. No services, however, were introduced. Then, following an ABCB inquiry in 1957, FM 'was not proceeded with further at that stage' because, although the introduction of FM was supported in some quarters, it was opposed by a 'considerable body of opinion' (primarily incumbent broadcasters) (ABCB, 1972, parenthesis added).

Pressure for the introduction of FM continued throughout the 1960s and a new ABCB inquiry was commissioned in 1970. In 1972, the Government accepted that inquiry's recommendation for the introduction of FM in the UHF band rather than the international VHF band. This made the proposed Australian service unique as no other country had adopted, or had indicated an intention to adopt, such a system. Indeed, at the time, a receiver for UHF FM services had not even been developed. The controversy surrounding this decision has many obvious parallels with the current proposals to introduce a unique HDTV system as part of the analog-to-digital conversion of television. Like the current decision on digital television, the UHF FM decision was widely criticized. Unlike the current situation, however, opposition to the decision was championed by the influential Senate Standing Committee on Education, Science and the Arts (McClelland Committee). The Committee's second progress report was highly critical of the decision:

In 1972, the Broadcasting Control Board recommended that Australia develop an FM service, but in the UHF, or ultra high frequency region. There is no FM radio in this region anywhere in the world, and this recommendation would require the development of a new set of standards and new technology. We ... question the recommendation to develop a UHF FM system. Our questioning is based on evidence we have had from the Board itself, and from technically qualified people outside the Board. The technical evidence we have leads us to believe that there are technically feasible alternatives open to enable the service to be accommodated in the international (VHF) band, where every other FM service is located, and that the Board has not adequately considered these alternatives, both from the technical point of view, and from the economic and social point of view. We also have evidence and information which lead us to conclude that the disadvantages of developing a UHF service are enormous, and we believe that every possible avenue open to avoid this course should be evaluated, and their costs calculated, in view of those disadvantages (McClelland Committee, 1973:19).

The final chapter in the FM broadcasting decision was the appointment of an independent inquiry, along lines proposed by the McClelland Committee, that recommended the introduction of VHF FM and the clearing of television services from the international FM band (Independent Inquiry into Frequency Modulation Broadcasting, 1974).

What Was Wrong with the UHF FM Decision

In 1972, the Government accepted a recommendation by the Australian Broadcasting Control Board for the introduction of FM radio using the UHF band. Internationally the VHF band was used for FM radio. The decision was controversial and was widely criticized. It was condemned in a highly critical report by the Senate Standing Committee on Education, Science and the Arts (McClelland Committee, 1973). The Committee's major criticisms included:

- UHF FM system would be unique in the world:
Everywhere, with no exceptions, the service has been in the VHF band (p. 18).
- The Board provided an inconclusive account of 'possible' or 'potential' interference between FM radio services and television services operating in the same frequency band.
We have had evidence, from technically qualified people, that these difficulties could be fairly cheaply overcome, but nowhere does the Board give any evidence of having investigated and costed the methods of overcoming them (p. 19).
- The wide separation between channels used by the Board considerably understates the number of services possible in the unused portions of the VHF band.
The Board's estimate of the number of stations ... is based on a certain spectrum space separation between channels (0.8 MHz). But there is an intriguing reference in the Board's report to there being 'some technical justification' for a closer spacing (0.4 MHz) which would greatly increase the number of stations available. Yet, incredibly, the Board did not develop or explain this point further. Technical evidence we have had supports the closer spacing, and technical documentation from reputable overseas sources affirms the support (p. 20).
- The Board overstressed claimed advantages for UHF FM stereophonic and quadrasonic broadcasting for which standards had not yet been developed and for which consumer demand was unknown.
While acknowledging the superiority of VHF for FM if space can be found, the Board made some point of stressing the claimed advantages of stereophonic and quadrasonic broadcasting in UHF FM, where it says new standards could be developed, which would be better than those presently used in VHF FM overseas. In its more recent statement, tabled in Parliament on 7 June 1973, even greater stress was laid on this, and by the time the Board appeared to give evidence, it appeared to be a major reason. We seriously question this, firstly because the major benefit of FM in our view is that it makes more stations available, which has nothing to do with stereo or quadrasonic broadcasting. Secondly, we believe that the stereo standards used in FM overseas have proved satisfactory to music lovers. Thirdly, we wonder what proportion of the population will be interested in stereo equipment anyway, let alone quadrasonic equipment. The Board appears to have made no assessment of the interest (pp. 20-21).

VHF receivers would be cheaper because of worldwide economies of scale, rather than having to be made especially for Australia as would be the case for UHF. Cheaper receivers would boost the adoption rate by consumers. Also, because the number of sets already in Australian homes was 'already equal to about 5 years' sales of UHF sets' there was a greater incentive for commercial investment in FM services (p. 22).

The Pay-TV Decision

The introduction of subscription television in Australia also was preceded by an extraordinary series of delays to insulate established commercial television operators from competition by new services. Despite its awareness of strong demand as far back as the early 1970s, the Government did not allow the introduction of the service until the 1990s.

There has been considerable representation to the Board and the Minister concerning the possibilities of establishing, in the more populous areas of Australia, widespread cable systems to distribute television programmes and other material. However, because of the wide range of complex policy and legal considerations involved in any such development, particularly in relation to the existing television services and their continued operation, ... no such services have been authorised (ABCB, 1973:45).

Although introduction of subscription television 'as soon as practicable' was recommended by the Australian Broadcasting Tribunal (ABT, 1982) the government of the day did not act on the recommendation. The issue continued to be considered following a change of government in March 1983. In September 1986, introduction of pay-television was banned for at least four years to give regional commercial television operators time to adjust to other policies for the introduction of competitive services in their markets. Why pay-TV services were also banned in metropolitan markets not affected by those policies was not explained.

Finally, in 1992, the Government decided to allow limited introduction of pay-television services using satellite transmission. The decision was largely motivated by a desire to make the sale of the government-owned, financially-troubled, domestic satellite operator AUSSAT more attractive to prospective buyers. No consideration was given to alternative delivery platforms such as cable or MDS that were permissible under the new 1992 broadcasting legislation. However, when an entrepreneur began to accumulate MDS spectrum licences in major cities with the intention of providing a pay-television service, the Government amended the legislation prohibiting such services until 31 December 1994—a date beyond the originally anticipated start of the satellite services.¹

As a further protection of incumbent free-to-air broadcasters, pay-television services were banned from selling advertising or making sponsorship announcements before 1 July 1997. After that date, subscription fees were to remain the predominant source of revenue. Anti-siphoning provisions were also introduced giving free-to-air broadcasters the right to broadcast major sporting and other specified events ahead of pay-television services. Pay-television operators cannot buy the exclusive rights to those events.

1 However, problems with the development of appropriate technical standards delayed the introduction of satellite services until 1995.

The folly of the arbitrary restrictions on the development of pay-television was ultimately demonstrated by the utter failure of the satellite pay-television model originally mandated by the Government. The current pay-television services on offer to the Australian community have nothing in common with the Government's original model.

The Digital Decision

The decision to introduce digital television in Australia is perhaps the most extensive overt protection yet offered to commercial broadcasters. The decision has been widely and strongly criticized by media and independent observers alike. Indeed, according to newspaper reports at the time of the initial decision, allegedly it was also widely opposed by government departments.

The Government's initial decision was very similar to proposals advanced by existing free-to-air television operators. It mandated the introduction of high-definition television (HDTV) requiring a full 7-MHz channel for its delivery, rather than standard digital television services, four of which could have been accommodated in the same spectrum space. This makes the Australian position unique. No other country has mandated HDTV, although the USA permits it. Existing free-to-air television operators are being given free use of spectrum for digital television during the mandated simulcast period of at least eight years, but are required to give up their analog channels (also 7-MHz) at the end of that period. The licensing of additional competitive television services was banned until 2007.² However, as all the available television channels in major cities will be tied up during the simulcast period, competitive entry is effectively blocked until at least 2009. Further protection of free-to-air television operators is being provided through an artificially restrictive definition of datacasting services to prevent the development of new television-like services. In an apparent concession to pay-television operators, use of the digital spectrum by free-to-air services to provide multiple standard television services has been prohibited pending a review in 2005.

The Minister for Communications cited 'special circumstances' as the basis for the Government's decision. He said that while the Government 'would normally welcome additional competition, in any industry, as healthy and likely to lead to benefits for the consumer' it makes no apologies for the special treatment given to existing television operators. According to the Minister:

Australia has a world class TV system, with a strong local content component and a highly skilled production sector. This could be threatened if the existing networks had to battle a new competitor at the same time as paying huge sums to transfer to

² The Government had previously decided that the ban on new services would stay in place until 2009 but accepted a Senate amendment shortening the ban by two years.

digital broadcasting, or if Pay-TV networks found themselves faced with significantly stronger free-to-air opponents while still trying to find their feet (Alston, 1998).

The Australian Financial Review, in an editorial the day after the announcement, labelled the decision 'information age mockery' and was more brutal in the assessment of its motivation:

This decision was not made on the basis of an open and transparent public policy review, but was designed to grant a political favour—from which it expects a political reward—to the incumbent broadcasting oligopoly (25 March 1998).

As subsequent developments demonstrate, the protection of incumbent broadcasters was central to all the elements of the digital television decision. To ensure the effectiveness of its ban on the licensing of new broadcasters, the Government has developed a convoluted set of regulations that severely constrain the development of new services such as multicasting and datacasting. As acknowledged by Senator Alston (1999), both the ban on multichannelling and the highly restrictive definition of datacasting services were intended to prevent 'back door' competitive entry into broadcasting. Overall, the government decision will result in a highly wasteful use of spectrum and severely constrained consumer access to new services that would otherwise have been possible by the introduction of digital broadcasting. While the decision provides considerable benefits to incumbent broadcasters, the benefits accruing to consumers will be small and will undoubtedly retard the migration of viewers from analog to digital television. It will also severely constrain industry development and the delivery of innovative services.

The Planning and Licensing Process

Traditionally, all aspects of the planning and licensing of radio and television services were controlled by statutory powers exercised by a minister of the Commonwealth Government. The minister had ultimate responsibility to determine what technologies were permitted for the delivery of broadcasting services and the number, geographic distribution and all technical operational criteria of the permitted services. The minister also issued licences to authorize the operation of commercial and community services. Prior to the establishment of the ABCB in 1949, all the planning and licensing powers were vested solely in the minister. From then until 1987, in making licensing decisions, the minister was required to consider recommendations made by the ABCB after a public inquiry, but was not bound by those recommendations. The issue of a licence was solely at the discretion of the minister with no requirements to give reasons for a decision. Commercial considerations, particularly the protection of incumbent broadcasters, played a major role in the issue of licences.

With the establishment of the ABT in 1987, the power to grant a licence was transferred from the minister to the regulator. The minister, however, retained the power to determine the service specifications and to call for applications to be lodged with the ABT.

Before granting a licence, the ABT was required to hold a public inquiry including consideration of the impact that the proposed licence would have on the 'commercial viability' of existing services. This arrangement remained in place until 1992.

A new planning and licensing policy, promising a considerable advance on the arrangements applying previously, was established by the *Broadcasting Services Act 1992* (BSA). The Act provides for a three-stage process for the allocation of the available broadcasting spectrum for the delivery of radio and television services throughout the country. What was envisaged was an integrated national plan for broadcasting services based on the different levels of demand likely to exist in different areas and on a range of social and technical considerations. Within the constraints set by the availability of spectrum, the process also aimed to provide greater scope for market forces to determine the viability of additional services and to allocate commercial broadcasting licences (introduced a price allocation mechanism).

In brief, the three stages of the planning process are:

1. Setting of priorities for the development of detailed area plans and thus establish the sequential order for the licensing of new services in different areas of the country over a period anticipated to last several years.
2. Development of frequency allotment plans identifying the notional number of services to be made available in particular areas throughout Australia. The number of channels available for allotment is highly dependent on the technical criteria chosen by the planners.
3. Development of licence area plans, using the frequency allotment plans as a guide, to determine the number and type of services (commercial, community or national) to be licensed in a given area.

Planning and Licensing Criteria

According to the explanatory memorandum, the planning and licensing provisions of the BSA were intended to make the planning process 'more open and accountable to its users, ... to minimise barriers to entry to the broadcasting services industry' and to facilitate competition 'through the quicker introduction of extra services'. The planning and licensing functions were assigned to the Australian Broadcasting Authority (ABA), subject to ministerial directions on the reservation of spectrum capacity for national and community services.

In the exercise of its planning functions, the ABA is required by section 23 of the Act to promote the objects of the BSA 'including economic and efficient use of the radiofrequency spectrum' and to have regard to:

- (a) demographics; and
- (b) social and economic characteristics within the licence area, within neighbouring licence areas and within Australia generally; and
- (c) the number of existing broadcasting services and the demand for new broadcasting services within the licence area, within neighbouring licence areas and within Australia generally; and
- (d) developments in technology; and
- (e) technical restraints relating to the delivery or reception of broadcasting services; and
- (f) the demand for radiofrequency spectrum for services other than broadcasting services; and
- (g) such other matters as the ABA considers relevant.

A clear intention of the legislation was that the commercial viability of existing or proposed services was not to be a major consideration in the allocation of licences as had been the case with the previous legislation. However, the distribution of channels throughout the country (the primary function of planning) was to be guided by the broad economic considerations listed in section 23. As stated by the explanatory memorandum:

It is at the planning stage that judgements will be made about the number and type of services to be available in market areas. There will no longer be a provision at the licence allocation stage for consideration of whether or not there should be another service of a particular category in a licence area

The legislation does not provide specific directions to the ABA on the exercise of its planning function. While promotion of the objects of the BSA is required, the relative importance accorded to the different objects is a matter for the ABA to determine, as is the relative weight given to the specified planning criteria. The lack of specific direction also left the ABA exposed to pressure from vested interests. Lacking precise definition of its powers and intent on avoiding litigation, the ABA adopted a rather restrictive interpretation of its powers, particularly in relation to the licensing of new services. The ABA's reticence to implement a pro-market approach to its planning function is evident from its actions at every stage of the planning process. Overall, the net effect of the ABA's timid approach has been a considerable winding back of the pro-market focus that had been envisaged by the framers of the legislation.

Although the setting of priorities for the preparation of frequency allotment plans and licence area plans is a relatively simple process, it has a considerable impact on the economic and social benefits accruing to society and on the efficient development of broadcasting services. According to the explanatory memorandum, there are competing priorities 'between particular areas of Australia, and between different parts of the broadcasting services bands' and 'prioritisation' is necessary because limited planning resources 'must be allocated to the areas of greatest social and economic need'. Because

of the necessarily long duration of the planning process, the order of completion of area plans can have considerable social welfare implications. In such a situation, sound public policy practice dictates a determination of priorities on the basis of the relative level of benefits accruing to society from the different licence areas (the higher the expected level of benefits, the higher the priority).

Because of government-imposed restrictions on the further development of television (six Australia-wide high-power channels, no more than three commercial television services in any one area) the ABA rightly focused its planning efforts on development of radio services. In setting its priorities, however, the ABA astonishingly decided that what it termed the 'least served areas' were to be planned for first. Primarily these were remote and regional areas. Metropolitan areas, where demand was likely to be greatest, were to be last in the queue. Because the planning process is lengthy, this meant several years' delay in the planning of services for capital cities³ with considerable loss of benefits to consumers and substantial protection from competition for incumbent broadcasters. The ABA has provided little explanation for its decision. In a somewhat candid admission that the decision may not have been well thought out, the Chairman of the ABA, in recent evidence to the Productivity Commission Inquiry into Broadcasting Services, stated:

The authority took a decision at that time (when the BSA was introduced in 1992) that it ought to ... prioritise on the basis that the least served areas ought to be done first. Perhaps in retrospect one might have said, 'You should do the areas in greatest demand first'. ... It's because of (that) decision ... to come down to the capitals last, that there are areas still unresolved. Those are the areas where most people live. ... Perhaps we should have started the other way around but that wasn't how we did it (Transcript of Proceedings, 28 May 1999: 529 and 532).

The loss of benefits to society was compounded by the ABA's determination of the frequency allotment plan. In preparing the allotment plan, the ABA appears to have given little, if any, consideration to potential variations of technical planning criteria for more intense utilization of the broadcasting frequency spectrum. As a matter of policy, the ABA decided that there would be no change to earlier plans that assumed six wide-coverage television channels throughout Australia and that there would be little scope for the introduction of additional AM radio services without replanning of the AM band. For FM radio, it adopted the following arbitrary targets for the distribution of services:

- 16 wide-area coverage channels in mainland State capital cities;
- 12 wide-area coverage channels in other major cities; and
- 8 wide-area coverage channels everywhere else.

³ The first capital city licence area plan (Sydney) was determined in December 1999.

While these arbitrary formulas for channel allotment might be appealing because of their superficially equitable treatment of geographic locations, they give little consideration to the very different consumer demand patterns in those markets or to the number of stations they can support. Indeed, such an approach is inequitable to residents of larger cities. By allocating the same number of channels to all the cities in a group, the process is heavily biased against residents of the larger cities. For example, a market like Sydney would have a much greater demand for, and capacity to support, a substantially larger number of broadcasting services than a city like Adelaide with a population that is less than 30 per cent that of Sydney. The ABA's approach, however, implicitly assigns to residents of Adelaide a per capita demand for broadcasting services that is more than three times that assigned to residents of Sydney.

Economic and efficient use of the spectrum requires allocation of the available channels to their most valuable use taking account of both economic and social benefits. Although the ABA claims that the channel targets were developed 'in the light of demographic and social and economic characteristics of areas', it offers no explanation of how the targets are derived from those factors (ABA, 1998). It is clearly evident, however, that in economic terms at least, an additional licence in Sydney would be worth much more than an additional licence elsewhere. To justify its arbitrary allocation, therefore, it would be incumbent on the ABA to demonstrate with detailed cost-benefit analysis that the lower economic values of licences outside Sydney are balanced by commensurately higher social benefits.

The technical criteria used to determine the signal quality and coverage of a service can have a considerable influence on the efficiency of spectrum use. The ABA's application of the planning criteria focuses on ensuring an unnecessarily high signal quality throughout the licence area and gives only scant consideration to the tradeoff between signal quality and the number of services that can be accommodated in a given amount of spectrum. The more intensively channels are used, the greater the likelihood of interference between them. Because services using the same or adjacent frequencies can interfere with each other, not all channels can be used in any one location. The number of channels available in any one location depends on: the acceptable level of interference between them, which in turn is dependent on the intensity with which the channels are reused; the power and coverage pattern of transmitters; the location of transmitters; the height of the antenna; and several other factors. A variety of well-tested techniques is available to planners to increase the intensity of use of channels as is done in many other countries that have had to cope with considerably greater spectrum scarcity than is the case for Australia.

Principles of a Good Broadcasting System

The McClelland Committee (1973) expressed the following view on the desirable attributes of a good broadcasting planning system in the context of its examination of decisions on FM broadcasting in the early 1970s:

Firstly, we acknowledge that broadcasting arrangements should be determined by social, economic and, necessarily, technical criteria. We deliberately rank them in that order of descending importance. We realise that technical criteria are the easiest to judge by. Relative to other areas, technical matters tend to be clear cut, and easy to evaluate. The danger is that engineers, having a monopoly of expertise in the technical field, may unconsciously and with the best motives, tend to impose a sole criterion of technical excellence on the decision making process. Decision makers may be too easily persuaded that technical considerations rule out alternative arrangements which may have worthwhile social or economic advantages, and for which it may be worth forgoing a degree of technical excellence. We accept that technical expertise is the handmaiden of economic and social planning, but no more than that. When there is a choice between an increment of technical excellence, and an increment of social or economic cost or benefit, as we believe there often is, the judgement must be more than a narrow engineering judgement. It is the role of the engineer to present a set of technically feasible alternatives, and the choice of these should be made on social and economic grounds. We acknowledge that there is plenty of room for conflicting views about what should be done, especially in social matters. But the resolution of these is what government is all about.

Technical criteria may be more precisely measured than economic criteria. Nevertheless, the calculation of costs and benefits by the best procedures possible at the time should be mandatory for all broadcasting development. The calculation should involve benefits forgone. The costs and benefits of the widest possible set of resource use mixes should be estimated. We refer, for instance, to the allocation of frequency space between use for non-broadcasting communications, and use for broadcasting. Where are the detailed studies which confirm that our present usage is best? Where are the detailed studies of the economics of commercial television? What is the value of a MHz of VHF or UHF spectrum space? Nobody knows (p. 4).

Unfortunately, policymakers and regulators do not appear to have heeded the Committee's advice, nor is there a similar parliamentary committee today advocating efficient planning of the broadcasting spectrum and examining the efficiency of current policy decisions.

In addition, the current licensing arrangements are inherently inefficient. They provide for the supply of sufficient spectrum to guarantee adequate signal coverage of the specified reception area. This usually involves more than one single-channel frequency as more than one transmitter may be necessary to achieve adequate coverage. Thus, although there are 100 channels in the FM radio band and 51 channels in the television bands, on the basis of the current planning criteria the ABA is able to accommodate no more than 16 wide-area coverage FM channels in State capital cities and no more than six nationwide analog television services. Licence fees, however, are based on advertising revenue with no consideration for the amount of spectrum used. Broadcasters pay the same licence fee irrespective of the number of channels they use to service their

licence area. Consequently, they have no incentive to use the spectrum efficiently or to develop other cost-effective delivery systems. Indeed, the current arrangements have an inbuilt incentive for broadcasters to use up as much spectrum as possible and thus reduce the scope for competitive entry by other broadcasters.

The loss of benefits to society is further compounded in the third stage of the planning process. This is the most detailed stage of the process and many of the elements are left to the discretion of the regulator to determine. A recent assessment of the planning process by lawyers Gilbert & Tobin (1997) concluded that because of a lack of clarity in the provisions of the legislation, the ABA's considerations of some important factors may be unnecessarily restrictive and inconsistent with the initial intentions of the legislation in relation to the viability of existing services and efficient use of the spectrum. The impact of the ABA's approach is best illustrated with reference to the licence area plan for Sydney, the first such plan for a metropolitan market.

The Sydney Licence Area Plan

The Sydney licence area plan for radio was determined by the ABA on 17 December 1999. The final plan is virtually the same as the draft plan published a few months earlier (ABA, 1999a). Almost every aspect of the licence area plan is inherently biased in favour of incumbent commercial broadcasters and against new entry competition. While the final plan is essentially a formal determination by the ABA, the draft plan discusses in some detail the ABA's planning approach and reasons for its conclusions. The Sydney draft plan, therefore, provides a good case study of the innate tendency of regulators to limit change to the *status quo* and highlights the inefficient outcomes likely to emerge when decisions and judgements about market developments are removed from market players and are entrusted to regulators.⁴

As indicated above, the frequency allotment plan for the development of radio established a target of at least 16 wide-area coverage FM radio channels for the Sydney area. Of the available channels, 11 are currently in use (two by the ABC, one by the SBS, four by commercial operators and four by community broadcasters). The draft licence area plan for Sydney identified five additional FM wide-area coverage channels for allocation to new services. Three of the channels have a high power capacity of 150 kW giving them comparable coverage to existing commercial services. The remaining two services are restricted to 15 kW and 50 kW and thus have a more limited coverage. The ABA's determination allocates only two of the wide-area coverage channels for addi-

⁴ The Sydney draft plan appears to have been used as a template for the development of the Melbourne draft licence area plan (published in December 1999).

tional commercial services. However, only one of these channels will be allocated immediately with the allocation of the other being delayed for four years. The remaining three wide-area coverage channels were set aside for community radio services.

The ABA's determination arguably undermines the intentions of the *Broadcasting Services Act* and, for several reasons, is unlikely to produce the greatest possible net benefits to society. The determination and the underlying analysis have the hallmarks of an attempt to insulate established broadcasters from increased competition by greatly underestimating the market potential and by unnecessarily delaying new entry. Furthermore, the ABA does not provide a detailed analysis to demonstrate that the allocation of wide-area coverage channels for the provision of community radio services represents the most valued use of a scarce resource consistent with its obligation to promote 'economic and efficient' use of the spectrum.

Demand for Additional Commercial Services

Given that commercial licences are to be allocated by a market mechanism (auction), there is no need for the ABA to be concerned with the level of demand or to try to second-guess what the market outcome might be. If the demand for channels is greater than the supply, the allocation mechanism will ration the channels to those placing the greatest value on the licences. Alternatively, in the unlikely event that supply exceeds demand, some of the channels would be passed in at the auction.

The ABA should also not be concerned with the feasibility of additional commercial services. Decisions on the feasibility of an investment should be left to investors to make. In an auction, the onus is on bidders to assess the value of a commercial licence to themselves. If they overestimate the value and pay a higher than warranted price, the return on their investment is diminished and so is their capacity to compete effectively with other broadcasters. If investors overestimate the capacity of a market to support services, the least efficient services will fail and only the number that can be efficiently sustained by the market will survive. Incumbents will survive only if they are more efficient than new entrants. The net result of this market process is that consumers are assured access to the services they value most.

In a situation where the number of services that can be licensed is restricted, as is the case for the Sydney market, the auction will efficiently ration the licences to those who value them most. The scarcity value of the licences is factored into the price which investors are prepared to pay to ensure that it is secured by the community and not by a few licence-holders.

The ABA relies heavily on incumbents and aspirants for its information on market demand (Gilbert & Tobin, 1997). This is likely to distort its assessment in favour of incumbents who have a huge incentive to argue against increased competition. The incentives to aspirants, on the other hand, are limited and indirect because they are not assured of securing a licence in an eventual auction. Incumbent broadcasters would be expected to argue strongly that there is no demand for additional services or that the quality of services will decline if new licences are issued. For them, the less intense the competition, the greater their profits.

In a normal market, suppliers compete with each other both in terms of price and quality. In free-to-air broadcasting there is no price competition and quality becomes the main driver of competition for audiences. A reduction in programming quality could occur only if all services simultaneously agree to a reduction by, in effect, forming a cartel. Notwithstanding that such an arrangement would be in breach of the *Trade Practices Act*, it would be difficult to sustain. Restricted spending on programmes would encounter the classic dilemma of cartels because individual broadcasters would not see reduced programme quality as being in their best interest. There is an inherent incentive for individual members of such a cartel to break the agreement and increase quality. Increased programming quality by one service seeking to gain advantage over its competitors cannot be left unanswered if competitors wish to avoid losses of audiences. There is pressure, therefore, for overall programme quality to be driven up. The larger the number of competitors in the market the more difficult for cartel-type arrangements to be sustained. Broadly, incentives to increase quality will not stop until an industry's profits are driven down to normal economy-wide levels. In a restricted market, there is less pressure for intense competition on the basis of quality and above-normal profits will be a feature of the industry. Furthermore, as acknowledged by the ABA, an increase in the number of stations will increase the diversity of programming available to audiences.

Impact on Revenue and Profitability

The number of commercial radio stations in Sydney has not changed since 1981. Radio advertising revenue, however, has recorded a cumulative growth of 75.4 per cent in real terms between 1981 and 1998. Cumulative growth in GDP for the same period was 58.6 per cent. Growth trends indicate that radio advertising revenue is likely to continue growing faster than GDP in the foreseeable future.

The average revenue of Sydney commercial stations (\$17.2 million in 1997/98) is more than twice that of commercial stations in all other State capital cities (\$8.4 million). The average revenue of the four FM stations in Sydney was \$24.5 million in 1997/98 and that of FM stations in other capital cities was \$10.0 million. Use of the capital cities

(excluding Sydney) average as a yardstick indicates that the Sydney licence area could support twice as many stations than at present (i.e., an additional nine stations). As the new services will be operating in the FM band, the average revenue of capital city (excluding Sydney) FM services may be a more appropriate guide. On that basis, the Sydney licence area could support approximately six additional stations.

The ABA's own analysis and conclusions in the recently published draft licence area plan for Melbourne (ABA, 1999b) imply that Sydney would be able to support more than the two proposed additional commercial FM services. As for Sydney, the draft Melbourne plan envisages the licensing of an additional two commercial FM services. It follows from this that the ABA considers an average revenue of \$11.7 million to be sufficient for profitable operation of a capital city FM service.⁵ On that basis, Sydney could support at least four additional FM services. These estimates are conservative as the average revenues used as yardsticks are overstated by the extent that cities other than Sydney and Melbourne can also support additional services.

The validity of these comparisons is even acknowledged by the ABA. The statement of assumptions used in the preparation of licence area plans says that the ABA 'assumes the demand for additional broadcasting services can be inferred from demographic, social or economic indicators within a market or from comparison with other markets with similar demographic, social or economic characteristics ...' (ABA, 1998).

Revenue, of course, is only one aspect of business operations. Costs must also be taken into account. The operation of radio services should not differ greatly with its location in the various State capital cities. The operation of transmitters, studios, programme costs, etc. would be expected to be similar. Some costs such as agency commissions and licence fees are related to advertising revenue. Similarly, salaries and wages may be partly related to revenue, but are also likely to reflect the ability of some key personnel such as executives and popular presenters to secure some of the monopoly rents from restricted entry to the industry. Office rentals would be expected to vary from city to city. After allowing for these variations, estimates of costs indicate that several additional FM services could operate profitably in Sydney (Papandrea, 1999).

Return on Investment

Radio licences represented 60 per cent by value of all the assets of the commercial radio industry in 1997/98. For the Sydney radio market, 70 per cent of the value of the indus-

⁵ This is derived from apportioning the 1997/98 revenue of FM stations in Melbourne equally to the existing and proposed FM services.

try's assets are represented by licence values. For Sydney FM stations, licences represent 79.9 per cent of all assets. In 1997/98, the average book value of an FM radio licence in Sydney was \$44.3 million. This is approximately four times the average value of all the other assets of Sydney FM radio stations (\$11.1 million). The average value of radio licences for FM stations in other State capital cities was only \$15.1 million. The average value of total assets other than radio licences for FM stations in State capital cities was \$8.3 million.

The profits before interest and tax (PBIT) to tangible assets ratio for the Sydney FM stations is very high relative to the ratio achieved by investments in other industries.⁶ This means that acquisition of licences for FM stations in Sydney would be very attractive to investors. As acknowledged by the ABA, the value of a 'broadcasting licence ... represents a capitalisation of expected economic rents' (ABA 1999a). In part this is reflected by the substantial variation in the value of radio licences of FM stations in different capital cities. The value of other assets of FM stations varies much less from city to city. The fact that the value of an FM licence in Sydney is approximately three times the average for licences in other State capital cities is a good indicator of high potential earnings for new stations. Thus, it is also an indicator of the value that investors may be willing to pay to secure a licence at an auction. Obviously, an investor's willingness to pay will be affected by the number of licences to be allocated. The fewer the licences, the higher the expected returns and thus the higher the price that investors would be prepared to pay.

The ABA notes the high ratio of PBIT to tangible assets for Sydney radio stations in its analysis (ABA, 1999a). As noted by the ABA, the ratio for Sydney radio stations (44.3 per cent) is a little more than twice as large as that for the Australian radio industry (including the Sydney stations) as a whole (21.5 per cent). This comparison is somewhat inappropriate as it tends to understate the difference between the Sydney stations and the rest of the industry (i.e., total industry less Sydney stations) for which the ratio is 17.1 per cent. However, even with that adjustment the true extent of the difference is considerably understated. As calculated by the ABA, the PBIT to tangible assets for Sydney refers to all commercial (AM and FM) services in the Sydney market. As the proposed additional services for Sydney will be FM services, the PBIT to tangible assets ratio for the existing FM services in Sydney is the relevant ratio for consideration. In 1997/98, the PBIT ratio for the four Sydney FM stations was 70.8 per cent. This is

6 Given the revelations in the 'cash-for-comment' hearings of the ability of radio talkback stars to earn extra income, the returns to incumbency may be significantly greater than the direct revenues of the radio stations suggest.

twice as large as that of FM stations in other capital cities and more than four times that of the Australian commercial radio industry excluding Sydney FM stations.

Delayed Allocation of Licences

The foregoing analysis clearly indicates that the Sydney market would be able to sustain several more commercial radio stations. The ABA's decision, however, not only unrealistically underestimates the market's capacity to support additional services, but also astonishingly defers the licensing of one of the two proposed new services for four years. The decision to delay licensing of the second service stands in sharp contrast with the intentions of the Act to minimize barriers to entry and facilitate competition through 'quicker introduction of extra services' (Explanatory Memorandum). According to the ABA, the delay was motivated by a concern that licensing of two additional stations would be a 'shock ... likely to have undesirable consequences on the industry' (ABA, 1999a). The ABA also stated that it was 'concerned at the possibility that a substantial increase in the number of commercial licences in the Sydney market would lead to a decline in revenues and profitability for the industry as a whole'. It is difficult to imagine why the ABA should be so concerned. It is obvious from its own reasoning for delaying the second licence—to 'allow for further growth in GDP to be factored in'—that the ABA expected continued growth in the industry's revenue. Increased competition, on the other hand, would help dissipate some of the supernormal profits accruing to existing stations and would lead to decreased profitability. This is, however, a normal outcome of market competition acting to align high rates of return on investment in one sector of the economy to more normal rates applying elsewhere and is thus not a justifiable reason for ABA concern.

Delayed introduction will also run counter to the desire of introducing competition quickly and encouraging new entrants. Indeed the staged introduction of services may end up having an adverse effect on competition. Bidders for the first licence will take account of the delayed entry and will accordingly adjust upwards the price they are prepared to pay to secure the licence. The new entrant will thus face a higher investment, a higher cost structure and lower potential return on investment than its competitors and will be disadvantaged in its attempts to compete with the incumbent broadcasters.

Commercial versus Community Channels

Australian broadcasting policies accord considerable social value to the availability of non-commercial services. National and community radio services compete with commercial services for the same spectrum. Within a licence area, they all have to be catered for within the channels that have been allotted by the ABA for that particular

area. Efficient allocation of available channels among these different categories of services requires extensive consideration of both economic and social benefits. Because of these considerations, the BSA had envisaged that the minister would retain the power to determine and set aside channel capacity for national and community services and to direct the ABA accordingly. All the unreserved capacity was to be available for the ABA to allocate to commercial services.

In the absence of a ministerial direction to do so, the ABA's power to set aside three of the five available wide-area coverage channels in Sydney for community services, as it proposes to do, might be doubtful. In its discussion paper for the draft licence area plan for Sydney, the ABA says '(t)he reference in section 26 to the 'characteristics' of services includes, in the ABA's view, the category of each service'. Section 26 of the Act sets out the ABA's responsibility to 'determine the number and characteristics, including technical specifications, of broadcasting services that are to be available in particular areas ...'. The explanatory memorandum, however, suggests that this section relates primarily to the technical criteria as follows:

The licence area plan will contain the precise detail of all licence areas, including such matters as: the areas covered by each licence area; the nominal carrier frequency of the services; the nominal transmitter sites for each service; the nominal technical conditions for each service, including operating power and radiation pattern; and whether or not there will be a need for any translators for any of the services.

The ABA's view is apparently based on a legal opinion on the interpretation of 'characteristics' in the wording of section 26 of the Act. However, other legal interpretations are possible. For example, Gilbert & Tobin are of the view that 'on balance ... it appears likely that what was envisaged was a scheme in which the Minister did retain control as to the number of national and community services that would be made available' (p. 44). In other words, until a court makes a definitive interpretation, the ABA's view could be open to challenge.

Notwithstanding its potentially doubtful power to set aside channels for community use, the Act imposes an obligation on the ABA to plan for 'the economic and efficient use of the radiofrequency spectrum'. The maximization of social welfare requires the application of scarce resources to activities that produce the greatest level of benefit to society. The determination of what is the most productive use of resources takes economic efficiency as its starting point. Society, however, may wish to give up some of the economic benefits to pursue social goals that are valued more than the associated loss of economic efficiency. In other words, a particular policy choice implies a collective judgement that the social value of the outcome is worth more than the opportunity cost of not applying those resources to the most valuable alternative use.

Such a judgement requires more than an appraisal of considered opinions. A sound and reliable judgement cannot be made without rigorous cost-benefit analysis of the alternative uses of the channels. It is incumbent on the ABA, therefore, to justify fully how the proposed allocation of three wide-area coverage channels for community services represents the most efficient and productive use of the scarce radiofrequency spectrum. Such an allocation would involve a considerable transfer of highly valuable resources to a small proportion of Sydney's population. Because of spectrum scarcity, the estimated value of new commercial radio licences in Sydney is of the order of \$20 million to \$50 million (Collins, 1999). This value represents only a part of the opportunity cost of using the spectrum for the provision of community radio services.

While leading to an eventual increase in the number of FM commercial services in Sydney from four to six, the ABA's determination will also increase the number of wide-area coverage community FM stations from four to seven. This means that Sydney will have more FM wide-area coverage community stations than commercial FM services. Given the relative valuation of the two categories of stations, it is highly unlikely that such a distribution of frequencies represents the most efficient and productive use of the associated radiofrequency spectrum.

Eighteen community radio services already operate in the Sydney licence area. Of these, four are wide-area coverage FM services, one is a wide-area coverage AM service and 13 are local-area coverage FM services. The ABA proposes to license another seven: three wide-area coverage and four local FM services. If the proposal is implemented, 25 out of a total of 44 services (including the two proposed commercial services) would be community services. Commercial services would be restricted to 11 (nine existing and two proposed). In principle, the allocation of four additional local community services appears to be consistent with the envisaged function of community services. The explanatory memorandum says that 'community broadcasters differ from other broadcasting services in that they have a local focus and role in attracting local community participation in broadcasting'. On this basis, however, the allocation of additional wide-area coverage channels for community services may not be consistent with that function.

Licences for FM community services are issued free of charge on the basis of assessed merit to community groups seeking to operate services. It is not surprising, therefore, that demand for licences exceeds supply. A high level of demand for free community licences is not necessarily an indication that community radio services are highly valued other than by the small groups who seek to be community broadcasters. Audiences of community services are small. Studies on how well community services cater for their target audiences and to what extent the services are valued and used by audiences are virtually non-existent. There are no comprehensive Australian studies of the

intensity of demand for additional community services nor of the relative valuation which the community places on them *vis-à-vis* additional commercial services. FM radio licences are also highly sought and highly valued by commercial operators.

While the small audience of a community station may derive a substantial social benefit from the operation of the station, it is highly likely that such a benefit would be smaller than the aggregate social benefit that an additional commercial station would confer on its much larger audience. In any event, it would be incumbent on the ABA to demonstrate that the Australian community is prepared to transfer up to \$150 million to the operators and audiences of three additional wide-area coverage community stations in Sydney. In the absence of a detailed assessment of all the costs and benefits clearly demonstrating that the benefits of allocating the channels for use by community services outweigh the opportunity costs of using them for commercial services, the ABA's proposal may well be contrary to the wider public interest.

The BSA envisaged the use of narrowcasting licences for the provision of services targeted to special interest groups whose members may be widely dispersed throughout a licence area. The explanatory memorandum indicates that 'a special or common interest group' refers to groupings 'such as members of a particular occupation, profession, club or association, or say, persons who enjoy Baroque music'. The Act also provides for the use of non-broadcasting band licences for the delivery of community broadcasting services (section 82). According to the explanatory memorandum that provision was in recognition 'that the use of the broadcasting services bands may not always be the most efficient, cost effective method for delivering a community broadcasting service'. Narrowcasters are permitted to raise funds from advertising and as for commercial services, licences are allocated by auction. However, as community licences are issued free of charge, community groups overwhelmingly seek a community licence in preference to a narrowcasting one for which they would have to pay. The ABA draft plan provides for the allocation of three new narrowcasting licences in the Sydney licence area.

Need for Reform

The planning and licensing of broadcasting services involve three distinct components with different attributes, some of which are potentially in conflict with each other:

1. Planning and licensing are about assigning the right to use a limited public resource. Although the spectrum has unique attributes, allocation of the right to use the spectrum is essentially the same as the allocation of property rights over other resources.
2. Because signals using the electromagnetic spectrum as the carrier can interfere with each other, planning and licensing involve a technical element to limit potential interference to manageable proportions.

3. Licensing involves the right to conduct a broadcasting business with several cultural and social obligations. In a sense this is also a property rights issue.

When radio was first introduced, the principal problem facing authorities was prevention of interference between broadcasters operating in the same or different areas. As this was primarily a technical problem, the property rights to use the spectrum and conduct a broadcasting business were tacked onto the technical function. This early focus on technical issues has since evolved into a highly centralized and prescriptive system that determines the size of the broadcasting industry as well as the nature and location of the services that are available. All the important decisions are made by policymakers and regulators with only notional reference to the market in an environment that is highly conducive to influence by vested interests. The net result of all this is a system that leads to a highly inefficient and wasteful use of a very valuable scarce resource and to the advancement of the interests of private rent-seekers at the expense of the wider public interest.

Since the early days of radio, technological advances have minimized the necessity for detailed technical controls on the use of spectrum and the development of enforceable spectrum property rights has virtually done away with the need for centralized control and policing of interference between users. These developments have made a pro-market reform of broadcasting services possible and highly desirable. The desirability of reform was partially recognized in the development of the *Broadcasting Services Act 1992*. The legislation incorporated some major market liberalization aims including:

- maximum possible (economic and efficient) use of the broadcasting spectrum;
- minimization of barriers to entry including rapid allocation via auction of all available frequencies not set aside for use by national or community services; and
- no consideration of commercial viability of services by the regulator.

Because of imprecise wording and directions, however, what appeared to have been a promising start to reform has since been largely undone by the regulator's restrictive and overly legalistic interpretation. According to Gilbert & Tobin (1997):

Fundamentally, a policy choice needs to be made between the ABA's current approach and a market driven approach which would maximise the entry of new services into the market and accommodate the possibility of the failure of some services. The Explanatory Memorandum for the current Act does state that it was intended that barriers to entry to the broadcasting service industry be minimised and that competition in the provision of such services be facilitated through the quicker introduction of 'extra services'. The key policy decision to be made is whether the legislation should be amended to achieve this objective (page 34).

Most of the problems with interpretation appear to centre around the requirement for planning to promote the objects of the Act, including the economic and efficient use of the radiofrequency spectrum, and the statutory matters (section 23 of the BSA) to which

planners must have regard. Some of these matters have economic and social implications, and have provided the vehicle or justification for the ABA to impose its own judgements of the market on the development of broadcasting services. Evaluations of demand, feasibility of investments and other market parameters are best made by market players and should be left to them to make.

The capacity of a market to sustain broadcasting services should be left entirely to investors to assess. Excessive protection of incumbent broadcasters over many years has been based on the misguided concept that it is undesirable for broadcasting services to fail. Why broadcasters should be singled out for such special treatment is not apparent. Other media are not protected this way. Newspapers have been allowed to start up and fail with no obvious harm to the social fabric. But even if broadcasters had special attributes making their failure undesirable to society, it does not follow that a regulator is the best judge of the market's capacity to sustain services. Market players are much better judges of commercial viability and have a considerable incentive to make efficient choices because it is their investments that would otherwise be at risk.

There are three possible outcomes of a new player entering a market:

- all services including the new entrant are viable albeit one or more of the incumbent services may experience a reduction in their profitability; or
- the new entrant fails; or
- one of the incumbents fails and the new entrant succeeds.

The desire of investors to enter a broadcasting market reflects an assessment that they can earn a higher rate of return on that investment rather than on alternative investments. Investors will continue to seek to become broadcasters up to the point where expected returns from broadcasting are equal to expected returns from alternative investments. Through this process, market forces will ensure that the number of broadcasters in a market will be no more and no less than the number that can earn sufficient revenue to sustain efficient operations and provide an adequate rate of return on investors' funds. As is the case for other industries, this will be achieved without a regulator attempting to outguess the market.

In the event that one more investor than the number that the market can sustain enters the market, either the new entrant fails or one of the existing operators fails. In either case, the least efficient operator will be the one that fails. This will ensure that the services to consumers are the best and most efficient possible. Unlike the current situation where incumbents are protected from competition from new entrants and can thus afford to operate at less than maximum efficiency, the threat of entry into the market will ensure that full efficiency is maintained.

The broadcasting band is only a small portion of the radiofrequency spectrum. Problems of interference between services, which can occur just as readily in other bands as they might in broadcasting, have been adequately addressed by technical developments. However, in contrast to the highly prescriptive approach to licensing of the broadcasting spectrum, market forces play a dominant role in determining how the spectrum is used. Technical considerations come into play only in the identification of available bands for allocation to users. Property rights are well defined in terms of coverage area and maximum signal permitted to extend beyond the coverage area. Within the coverage area, spectrum owners are free to employ the spectrum to the fullest extent possible and have an incentive to apply it to the most profitable uses. Spectrum rights may be subdivided and leased or sold to others. Management of the radiofrequency spectrum, other than the broadcasting band, is the responsibility of the Australian Communications Authority (ACA). Apart from basic technical specifications, technical planning of services is the responsibility of property rights holders and interference problems are matters to be resolved between users. In common with other property rights, spectrum rights are enforceable in the courts.

There is no apparent reason why the approach used to manage non-broadcasting spectrum should not be used to manage the broadcasting spectrum as well. There is nothing unique about the broadcasting spectrum that would prevent this. Other spectrum is also subject to international agreements and to reservations for public interest use (e.g., defence, emergency services, etc.). The only unique aspect of broadcasting is the imposition of social obligations on those who carry on the business of broadcasting. Those obligations are not dependent on the carriage platform that broadcasters choose to deliver their services to consumers. If desired, therefore, social obligations can be imposed as a condition of doing business independently of the system used to manage the spectrum. This would be no different from what happens in other industries (e.g., safety regulations on the handling and storage of dangerous goods).

Automatic sale by auction of all broadcasting spectrum not set aside for national or community services would considerably improve the efficiency of allocation and use of spectrum for new services. However, as most of the broadcasting spectrum has already been allocated on the basis of earlier policies, action will also be necessary in relation to existing allocations so as not to entrench previous inefficiencies.

Under current arrangements, the holder of a broadcasting licence is assigned a block of spectrum which the regulator determines to be necessary to ensure an adequate signal throughout the licence area. This often involves more than one frequency channel as one or more translators, in addition to the main transmitter, may be required to broadcast the signal in accordance with the technical criteria determined by the regulator. Under those circumstances, the broadcaster may be concerned with the cost of operat-

ing the necessary transmitters, but essentially has no choice to vary the regulator-determined arrangements. In particular, as the licence fees paid are independent of the amount of spectrum used and as the spectrum cannot be applied to other uses, the broadcaster has no incentive to seek to use the spectrum efficiently.

Licensing of Non-Broadcasting Spectrum

Use of the radiofrequency spectrum, except for the band used by broadcasting services, is planned and managed by the Australian Communications Authority. Licences for the use of the spectrum are allocated by auction.

Spectrum licences are issued for a fixed, non-renewable term of up to 15 years. Licensees have a property right over the spectrum space and are free to apply it to whatever use they choose provided it is consistent with the conditions of the licence. Property rights are defined in terms of geographic coverage area and frequency bandwidth. Licensees can operate from any site within their spectrum space and are free to change the nature or technical characteristics of their services in response to changes in technology or market conditions. Licences are tradable in the open market. They may be bought, sold or leased, and may be aggregated or subdivided as the need arises.

For licensing purposes, spectrum space is subdivided into finite, indivisible units called standard trading units (STUs). At a spectrum auction, all spectrum space lots on offer are auctioned simultaneously and bidders can bid for any combination of lots reflecting their needs for bandwidth and geographic coverage. After the auction, transfers of spectrum licences are a matter for commercial negotiations between the parties involved.

All the spectrum in a designated band is offered at auction. Incumbents can bid for the spectrum they occupy in competition with other potential users. Unless they successfully bid for the spectrum they occupy, they will only continue to have use of that spectrum until their licences expire. Any use beyond the expiry date of their licence has to be negotiated commercially with the successful bidder.

To improve efficiency, licence fees paid by a broadcaster should reflect the amount of spectrum used as well as its relative scarcity at the use location. At present, broadcast licence fees are based on advertising revenue which in part reflects the scarcity at the location in which the spectrum is used but not the amount used. The larger the population within the licence area, the larger the potential earnings from advertising and hence the higher the demand for spectrum for additional services. Licence fees should reflect this scarcity value. For new services, the scarcity value of the licence would be reflected in higher auction bids. The payment of licence fees based on the amount and scarcity of spectrum used would encourage broadcasters to minimize their use of spectrum and release what they do not require for sale to other users.

Alternatively, the spectrum planner could be requested to undertake a replanning of the broadcasting spectrum for maximum possible use, taking account of current tech-

nological realities. Existing broadcasters would be offered sufficient spectrum to operate their service under the new regime. All spectrum released through replanning would be sold by auction. Such an approach would have the advantage that the spectrum needs of national and community services could also be reassessed on the basis of current technical practices. Ongoing licence fees would reflect spectrum use to ensure that broadcasters have an incentive to respond to technical developments as they arise and ensure efficient use of the spectrum.

Conclusions and Recommendations

The current broadcasting planning and licensing arrangements fall short of the desirable pro-market arrangements envisioned by the framers of the BSA, are highly biased in favour of incumbent broadcasters and severely restrict new entry competition. Several factors contribute to this situation:

- the ABA's interpretation of the BSA's planning and licensing provisions is conservative and restrictive;
- each element of the planning process is weighted against intensive use of spectrum that would allow more services to operate;
- the ABA appears to be more concerned with maintaining a roughly equitable allocation to different areas on the basis of their status as a State capital city or other centre rather than on the area's capacity to support services. This discriminates against large capital cities such as Sydney and Melbourne that are capable of supporting many more services than other centres;
- the ABA's approach relies heavily on information in submissions by vested interests rather than on its own independent analysis. The limited market analysis undertaken by the ABA appears to have been prepared more as a justification for predetermined conclusions rather than to assess the capacity of a market to sustain additional commercial services;
- the ABA is unduly concerned with issues of commercial viability of services that should be left to market players to determine;
- the ABA appears to be biased towards allocating scarce and highly valuable spectrum to community radio use likely to generate benefits of low or uncertain value without any detailed cost-benefit analysis to support its decisions.

The principal function of planning and licensing is to facilitate orderly operation of broadcasting services and not to impose economic regulation that restricts the operation of a legitimate commercial activity. In economic terms, there is no reason for broadcasting enterprises to be treated differently from other economic endeavours. Desir-

able social obligations should be imposed by way of broadcasting licences that define the conditions under which commercial broadcasters can conduct their business. But within any such conditions, decisions on the number and type of services to be provided in any area should be left to investors to make. Spectrum planning and licensing should facilitate the fullest possible use of the available spectrum. The following recommendations should improve efficient usage of spectrum and increase the benefits accruing to society:

1. The broadcasting spectrum should not be managed differently from the rest of the radiofrequency spectrum. It is a scarce resource that should be utilized to the fullest extent possible and applied to the most valuable uses as determined by the market and not by regulators attempting to outguess the market. All the spectrum not set aside for national and community services should be allocated by auction to the highest bidders. Those purchasing the property rights to the spectrum should be free to determine the purpose and intensity of use of the spectrum they hold. They should also be free to sell or sublet the whole or part of their spectrum holdings as they wish. The ACA has extensive expertise in spectrum management and should be given responsibility to manage the broadcasting spectrum in the same manner it manages the rest of the radiofrequency spectrum.
2. Broadcasting licence fees should distinguish between spectrum usage and other obligations of broadcasters. Spectrum fees should reflect the amount of spectrum used and the scarcity of the spectrum in a particular locality.
3. Licences to conduct a broadcasting business should be separated from spectrum property rights and should be issued separately. These licences should be concerned only with the social obligations of broadcasters and should be freely available to anyone wishing to become a broadcaster using the current pay-television model as a guide.
4. Broadcasters should not be extended any special protection from competition. Regulators should not have any discretion to determine the number of commercial broadcasters. This should be left entirely to the market to determine.
5. The amount of spectrum set aside for use by community broadcasters should be determined after extensive cost-benefit analysis to assess the benefits accruing to society from community broadcasting use against the opportunity cost of alternative use of the spectrum. The benefits accruing to society from spectrum already allocated to community use should be evaluated on a regular basis.

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