
NON-AGENDA

With the view of causing an increase to take place in the mass of national wealth, or with a view to increase of the means either of subsistence or enjoyment, without some special reason, the general rule is, that nothing ought to be done or attempted by government. The motto, or watchword of government, on these occasions, ought to be æ Be quiet. . . . Whatever measures, therefore, cannot be justified as exceptions to that rule, may be considered as *non-agenda* on the part of government.

—*Jeremy Bentham* (c.1801)

Australia's Digital TV Giveaway

Ross Jones

IN March 1998, Australia's Minister for Communications, Senator Richard Alston, announced the Commonwealth government's plan for the introduction of digital TV in Australia. The plan, which was also generally supported by the Shadow Minister for Communications, Senator Chris Schacht, continues a long tradition of Australian governments protecting the three free-to-air commercial television broadcasters at consumers' expense, and limiting the potential development of a broad range of new services and employment opportunities. The introduction of digital services to Australia could have provided opportunities for an increase in the number of free-to-air broadcast services, enhancing competition in an industry that has been protected from it for far too long. It had the potential to improve the efficiency of spectrum use and to generate additional revenue for the government.

As it is, the government has decided to continue protecting the existing broadcasters well into the next decade and to inhibit the growth of new technologies. In doing so it has also lost the opportunity to review its outmoded cross-media and foreign investment rules.

Background

In early 1997, the Australian Broadcasting Authority (ABA) recommended the introduction of digital terrestrial television broadcasting (DTTB). In its report, the ABA (1997) stated that it expects DTTB to be the technology which delivers televi-

Ross Jones is Senior Lecturer in Economics at University of Technology, Sydney.

sion in the next century. There is growing demand for large-screen home theatre-style television receivers, which require high-definition television pictures to be effective. Digital transmission allows a wide-screen cinema format, with a clear picture and the facility to provide additional information in parallel with the television programme. Australian pay TV providers plan to offer digital transmission in the near future; it is the ABA's view that the future for terrestrial free-to-air television is bleak unless providers adopt digital technology.

A single DTTB transmitter can carry around 20m bits a second, a rate which the ABA believes is sufficient to carry one high definition television (HDTV) signal, or between six and eight conventional television quality signals, according to the types of visual images being sent. It can also be used to send other types of information, such as data.

As DTTB is designed to operate using the same channel bandwidth as the existing television signals, it is capable of operating in the VHF and UHF bands currently used by Australian free-to-air stations. Through more efficient use of the spectrum, it also makes it possible to introduce additional channels. Existing Australian television broadcasting uses a wide-frequency (six to seven megahertz, MHz) channel, and requires that one or more adjacent channels of the same bandwidth be left vacant to avoid interference. DTTB transmissions can use these vacant channels without interference to or from the existing analog services.

Using only the existing VHF and UHF spectrums reserved for broadcasting, and without moving existing channels, a digital channel could be found for six analog channels (the three commercial networks, ABC, SBS, and a sixth channel currently used for community broadcasting in some cities). If existing broadcasters were forced to move frequencies, additional channels would be available.

The ABA recommended that existing broadcasters be given sufficient spectrum to enable them to broadcast in the HDTV format. This would require each broadcaster to have access to an additional 7MHz channel so as to enable it to simulcast digital and analog for a number of years. Under the terms of the allocation, one of the channels would eventually be returned to the government. The ABA also recommended that broadcasters be required to move to HDTV and that DTTB should not be available to pay TV.

The Free-to-Air Broadcasters' Case

The ABA's recommendations to the Minister following the publication of the report were heavily influenced by the representatives of the free-to-air broadcasters who formed part of the specialist group which produced the report. The free-to-air broadcasters argued that they should be given the spectrum free because of the substantial costs involved in upgrading to digital technology and simulcasting a digital and an analog signal. The Federation of Australian Commercial Television Stations argued that, as digital would substantially add to the networks' costs while providing no additional revenue possibilities, broadcasters would have no incentive to undertake the investment unless the spectrum was made available free. They further argued that no restrictions should be placed on the use of the free spectrum. While

the three commercial networks downplayed the likelihood that they would use the allocated spectrum to multichannel rather than provide a single HDTV signal, they nevertheless wanted the option to be available to provide services other than HDTV should the demand arise.

The claims by the free-to-air networks for being given spectrum at zero cost are weak. At the simplest level, the free-to-air networks have argued that their very large investment in digital TV should be subsidised by the gift of spectrum which could otherwise have been auctioned to provide additional revenue to the government. This is the equivalent of the satellite pay TV operators asking the government to subsidise their satellite delivery mechanisms. With pay TV, the opposite occurred: the government put the licences up for auction and extracted very high prices from those wanting to deliver TV by means of new technology.

The free-to-air networks have argued that they each need 7MHz of spectrum to provide HDTV. However, there is no certainty that HDTV will be the technology of the future. Its development has been slow and HDTV receivers are currently very expensive. While it should be expected that the price of equipment would fall as overseas manufacturers expand production, it will not necessarily do so. There is no certainty that overseas broadcasters will switch to HDTV or that overseas demand for HDTV receivers will be substantial. Unless overseas consumers adopt HDTV, prices will remain high and consumers in Australia will be unlikely to switch from analog. However, the free-to-air broadcasters take the view that as Australian consumers become aware of the superior quality of digital video discs over VHS home video and of digital pay TV over analog PAL free-to-air transmission, the competitiveness of free-to-air for viewers and advertisers will be considerably eroded (Braunig, 1998).

International Approaches

The US has an ambitious programme which proposes that major networks transmit digital signals by the end of 1998. Each service has been lent a digital channel and must return its analog channel by 2006. But while the US implementation is based on the assumption that broadcasters will use the spectrum for HDTV, it is possible for the free-to-air broadcasters to use the spectrum for free-to-air multichannel services.

The Disney-owned ABC network in the US has already indicated that it is likely to multiplex its signal and not offer HDTV. Another major US broadcaster, the Sinclair Broadcast Group, has announced that it plans to provide several channels of standard definition television services (Glick, 1997).

US broadcasters will be required to hand back their analog or digital spectrum to the Federal Communications Commission (FCC) by 2006. But this may be delayed if consumers are slow to take up digital services or if the technology for conversion from digital to analog is not available.

US broadcasters will be allowed to offer broadcasting and non-broadcasting services. They are not required to broadcast in HDTV. The FCC has taken the view that some degree of flexibility is needed given the uncertainty of demand for

HDTV. It plans to implement a statutory provision to establish a fee structure for broadcasters' use of digital capacity for any ancillary services such as datacasting and subscription services. Such a regime appears designed to ensure that broadcasters give HDTV priority. However, this regulatory bias towards HDTV may be at the expense of more efficient use of the spectrum and may encourage investment by broadcasters in HDTV not matched by consumer demand.

In the UK, six transmission networks (or multiplexes) will provide 30 or more digital channels. Existing broadcasters have been given capacity on three of these multiplexes, while the remaining three have been awarded to new entrants. Under the UK model there is no requirement for HDTV and the actual multiplex model is based on multichannel standard definition TV services (ITC, 1997).

Should overseas free-to-air broadcasters not move to complete HDTV transmission, there will be little demand for the consumer electronics industry to mass-produce HDTV receivers. HDTV has been available in Japan for a number of years and has not had a great deal of acceptance. Quite possibly in Australia, limited demand coupled with the high price of equipment may encourage the free-to-air networks to seek to avoid broadcasting in HDTV and use the frequency for multichannel broadcasting. It would come as no surprise if at some time in the future the free-to-air networks lobbied the government to change the regulations to allow them to switch from HDTV introduction to standard definition digital with multichannels. Such an argument would be perfectly reasonable had the networks not been provided with valuable spectrum for free to provide HDTV. Should they then be able to switch to multichannel broadcasting within their free spectrum allocation, they would have been granted a series of valuable licences for their own expansion and would have blocked any new entry into free-to-air television.

The proposal forcibly to transfer free-to-air television to digital and to free analog space is likely to present difficulties similar to those arising in the cellular phone market. As with the phasing out of analog mobile phones, the termination of analog television services will generate a considerable political backlash and raise substantial consumer welfare issues, especially if the cost of digital TV receivers remains high.

Because of the very long transition period that is likely to be necessary, the free-to-air networks will probably keep substantial amounts of spectrum for a large number of years. Any new competition in the market after the free-to-air have returned their analog spectrum will occur so far in the future that the competitive impact of such a proposal cannot be estimated.

The Decision

After extensive lobbying, the free-to-air broadcasters won a substantial victory over their potential competitors when Senator Alston announced the new regime.

The government's decision provides for the free-to-air broadcasters in major markets to start broadcasting digital services from January 2001. They will be given an eight-year simulcast period, after which they will be required to return 7MHz of spectrum to the government.

The government has indicated that it will mandate HDTV broadcasting from a yet to be specified date, and the free-to-air broadcasters will be required to broadcast some minimum level of HDTV broadcasting. Datacasting services will be allowed on part of the spectrum not used for digital TV, and the free-to-air broadcasters will be charged to use it. Spectrum not used by the free-to-air broadcasters for datacasting will be auctioned to other service providers.

The free-to-air broadcasters have been banned from using the spectrum allocated to them for multichannel or subscription services. Enhanced services will be allowed. The government has yet to decide whether the ABC and SBS will be allowed to provide multichannel services.

The government also announced that no new commercial television licence will be granted until December 2008 at the earliest. However, subsequent amendments in the Senate shortened this period to 2006. Existing local-content requirements on the free-to-air broadcasters will remain.

A number of reports and inquiries over the next decade have been foreshadowed. The Department of Communications and the Arts will hold an inquiry, to be completed by 1 January 2000, on regulations governing allowable enhanced programming and datacasting services and on issues related to the convergence between broadcasting and non-broadcasting services. The government has proposed a major review of digital television in 2005. Emphasis will be placed on the efficiency of use of spectrum. The review will report on whether any spectrum is available for allocation and whether a new regulatory regime should be imposed.

A Lost Opportunity

The government's decision on digital television indicates that it has learned nothing from the regulatory fiasco of pay TV. The previous government's decisions on the regulatory framework for the introduction of pay TV in Australia were based on assumptions about technology that proved to be incorrect. The Keating Labor Government established rules for pay TV based on the assumption that satellite would be the dominant delivery mechanism. It then instituted requirements for digital transmission technology, an underdeveloped and expensive approach that added to the costs, and substantially delayed the introduction, of satellite-delivered pay TV.

The government then mandated the nature of satellite competition by providing opportunities for three satellite licensees and limiting the number of channels they could offer. Cable-delivered pay TV competitors Foxtel and Optus entered a largely unregulated segment of the market and quickly gained ascendancy over their heavily regulated satellite rivals.

The digital TV rules are a repeat of the failed technology-based regulation with additional anti-competitive elements that protect existing media interests. The decision to provide the existing free-to-air networks with digital capacity at zero cost is based on the assumption that HDTV will be the technology of the future. Rather than allow market forces, and specifically consumer demand, to determine the way

in which television will be available in the future, the government has mandated a technology so far unproven anywhere in the world.

There is no certainty that consumers will pay for upgrading to HDTV. The free-to-air commercial networks claim that they see no additional revenue potential from HDTV. Even in the US, which uses the inferior NTSC signal, there is doubt that consumers will pay for the quality provided by HDTV. In Australia, where the superior PAL system is used, there would likely be even less demand for upgraded picture quality, given the substantially higher price.

A more appropriate policy would have been to auction the digital spectrum. If the free-to-air broadcasters were of the view that the spectrum had value, they would have been able to bid, as would others who may have wished to use the spectrum for non-broadcast services. The government has held auctions for spectrum in the past and auctioned the pay TV satellite licences. Subject to general competition policy rules, such a system is likely to allocate spectrum to its most valuable uses.

The government collects in excess of \$100m a year in licence fees from the commercial networks in return for allocating them spectrum. The introduction of digital broadcasting could have allowed the entry of a number of new free-to-air broadcast networks. There was potential for the government to earn some increase on this \$100m by first auctioning spectrum and then, if it were taken up by new broadcast networks, earning revenue from licence fees from these new networks.

Digitalisation provided the government with an opportunity to rethink completely Australian media policy. Many of the current regulations, such as restrictions on cross-media ownership and on foreign ownership of commercial networks, are grounded in assumptions of scarcity of spectrum. While there may have been some justification for such regulation in the past, the opportunity for substantial expansion in broadcasting channels created by digitalisation should have led to an abandonment of outdated regulation. In a market of three commercial networks, arguments for cross-media laws to protect diversity may make some sense. Where digitalisation would allow numerous free-to-air networks, restrictions on cross-media and foreign ownership would be irrelevant.

An expansion of the broadcast market would likely lead to increased employment opportunities. If the government continued to insist on its local content rules, the increased number of broadcasters would generate an expansion in the number of television-related jobs and a diversity of programming to match subscription television.

Opponents of new entry into the free-to-air broadcast market might argue that local content regulation adds so much to broadcasters' costs that advertising revenues can support only a few free-to-air networks. This argument may have some validity, though advertising revenue has increased substantially in the 33 years since the last free-to-air network was allowed entry and the Bureau of Transport and Communications Economics found the rate of return to capital city free-to-air stations to be 29 per cent during the period 1991-95, well above returns for the Australian corporate sector (1996:77). However, new entrants may well be more efficient than some existing firms. The current arrangements merely protect the in-

cumbents. More open entry with expensive local content regulation may not result in the survival of a substantial number of free-to-air services, but this is no reason to continue to protect the existing free-to-air owners from competition. What other industry in Australia has been given protection from any new competition since 1965, when the Ten Network stations were licensed? These networks were given their licences free of charge, providing huge windfall profits for the original proprietors, and they continue to be provided with protection far beyond that given to most Australian industry.

Having provided the three commercial networks with at least another eight years of protection, the government has compounded its error with further regulation of the industry whose only purpose must be to placate those who missed out on an opportunity to enter. Why else have the free-to-air been restricted in their use of the spectrum gift? While the spectrum provided would allow the free-to-air networks to multichannel and provide data services, they will be prevented from multichanneling and will have to pay a fee to the government to provide data services. According to the minister, the fee will be equivalent to the price obtained from auctioning spectrum to non-broadcast data providers. The existing three commercial broadcast networks will therefore be free to enter the emerging market for data services. They will have spectrum and transmission mechanisms immediately available and substantial profits from their broadcast base to facilitate entry into the data-cast market. Their potential competitors in the data services market will be handicapped by being unable to enter the broadcast market or to access any economies of scope which may exist between broadcast and datacast markets.

In an indirect way, the struggling pay TV companies also benefit from the decision. Optus and Telstra have invested billions of dollars to provide subscriber television services. Multichannel digital free-to-air broadcasting would have severely damaged the penetration of the fledgling subscription television business. The decision to prevent multichanneling and limit the free-to-air segment to three commercial networks for a further eight years should provide a substantial market of dissatisfied television viewers desperate for the diversity offered by pay TV.

Even the application of this policy is inconsistent. Whereas the metropolitan networks will not be allowed to multichannel digital signals, some regional television operations are likely to be allowed to do so. The major regional pay TV operator Austar has had considerable success in attracting rural television consumers to its pay TV services. Austar paid the government for this opportunity, presumably on the assumption that the status quo would prevail. The government's inconsistent approach adds to the uncertainty attached to any new investment. The decision also undermines the commitment of the government to prohibit the metropolitan networks from multichanneling. It may be only a few years before the three commercial networks lobby the government to be able to provide free multichannel broadcasting to compete against the pay TV companies.

This is not to say that competition should be prevented. The unfortunate outcome of this policy is that the existing three commercial free-to-air networks have had their oligopoly further protected while being able to enter the new markets that

digitalisation may create. However, other companies, including telecommunications companies and other media (especially print media) companies, are prevented from entering the free-to-air broadcast market.

If the personal computer and television merge at some time in the future, the commercial television stations would appear to have gained an advantage over their internet rivals. The Nine Network/Microsoft venture, ninemsn, will have a major headstart over its non-television rivals. It will be possible to utilise the terrestrial digital capacity given to the Nine Network much more cheaply than the expensive cables of Telstra and Optus.

Conclusion

In announcing the new regime, Senator Alston said: 'This Government would normally welcome additional competition, in any industry, as healthy and likely to lead to benefits for the consumer. However, Australia's free-to-air and pay TV industries, in these circumstances, deserve a degree of special treatment and the Government makes no apologies for this decision' (Shanahan, 1998). The reality is that the government is mandating a version (HDTV) of a new technology so far unproven and then protecting the commercial networks from competition for a considerable period so that they will be willing to invest in this new technology. It locks other media and information providers out of the market and artificially perpetuates the shortage of spectrum scarcity — which then justifies its outdated and inefficient cross-media rules and restrictions on foreign investment in the media. By giving valuable spectrum to the free-to-air broadcasters in excess of what they need to provide digital television, the government has missed the opportunity to gain additional revenue from allowing new entry and competition into the lucrative oligopoly of commercial free-to-air television.

References

- Australian Broadcasting Authority (ABA) (1997), *Digital Terrestrial Television in Australia: Report of the Digital Terrestrial Television Broadcasting Specialist Group*, Sydney.
- Branigan, T. (1998), 'The Current Proposals and Where They Lead', pp. 12-20 in T. Jordan (ed.), *Digital Television Policy: Seminar Proceedings, Media and Telecommunications Policy Group*, RMIT, Melbourne.
- Bureau of Transport and Communications Economics (1996), *Australian Commercial Television*, AGPS, Canberra (Report No. 93).
- Glick, E. (1997), 'Tuzin Tracking B'casters' Digital Plans', *Cable World*, 1 September.
- Independent Television Commission (ITC) (1997), 'ITC Announces Its Decision to Award Multiplex Service Licences for Digital Terrestrial Television', news release, London.
- Shanahan, D. (1998), 'Labor, Democrats oppose free-to-air's digital decade', *The Australian*, 26 March.