# PRODUCTIVITY COMMISSION
# INQUIRY
# INTO BROADCASTING
# LEGISLATION

**SUPPLEMENTARY SUBMISSION FROM**
**THE FEDERATION OF AUSTRALIAN**
**COMMERCIAL TELEVISION STATIONS**

**AUGUST 1999**

# SUPPLEMENTARY FACTS SUBMISSION TO THE PRODUCTIVITY COMMISSION INQUIRY INTO BROADCASTING LEGISLATION

## 1. Preface

FACTS welcomes the opportunity extended by the Productivity Commission to expand on points raised in its appearance before the Commission, and to comment on issues raised in submissions and appearances by other parties.

We would appreciate it if you could let us know if there are any other points that require elaboration or explanation.

The main points we wish to comment upon are:

- The expandability or otherwise of television revenue, and the net benefits or detriments of a further commercial service or services in major markets. We consider that new services would be most unlikely to produce any appreciable revenue growth. They would cause revenue fragmentation. This would have strongly negative effects on local service and on Australian program production, with flow-on negative impacts on the production industry and program exports

- The appropriateness of the legislation for digital television, in the light of the cost to consumers and the industry, and alternatives suggested to the Commission. This includes discussion of spectrum and spectrum allocation, high definition television (HDTV), datacasting, set-top boxes and equipment interoperability

- The anti-siphoning rules, which FACTS believes are necessary to ensure that the established expectations of most viewers can be met

- Other matters raised in submissions and evidence.

## 2. Television Revenue and new commercial licences

This section examines what happened in the past with the introduction of new commercial television licences, and what the effect might be in current circumstances, in the light of that past experience and of experience in comparable overseas markets. It considers the benefits and detriments of new services, and spells out why Parliament and the community would have grounds for major concern about the consequences of new commercial services.

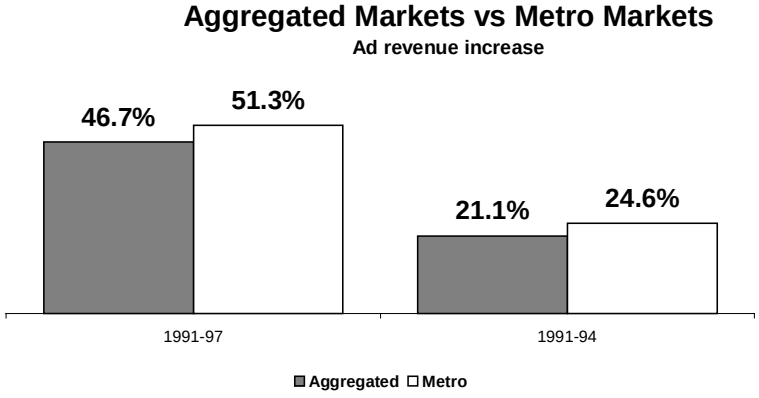
### (a) What has happened in the past?

New television licences were introduced in the past in markets that had experienced strong revenue growth for some years. This occurred in 1964-5 in Sydney, Melbourne, Brisbane and Adelaide, in 1987 in Perth, and in 1989-93 in regional aggregated markets.[1]

The new capital city licences coincided with periods of strong revenue growth, and expanding revenue share by television. Their introduction was in most cases followed by a noticeable increase in revenue in the following year.

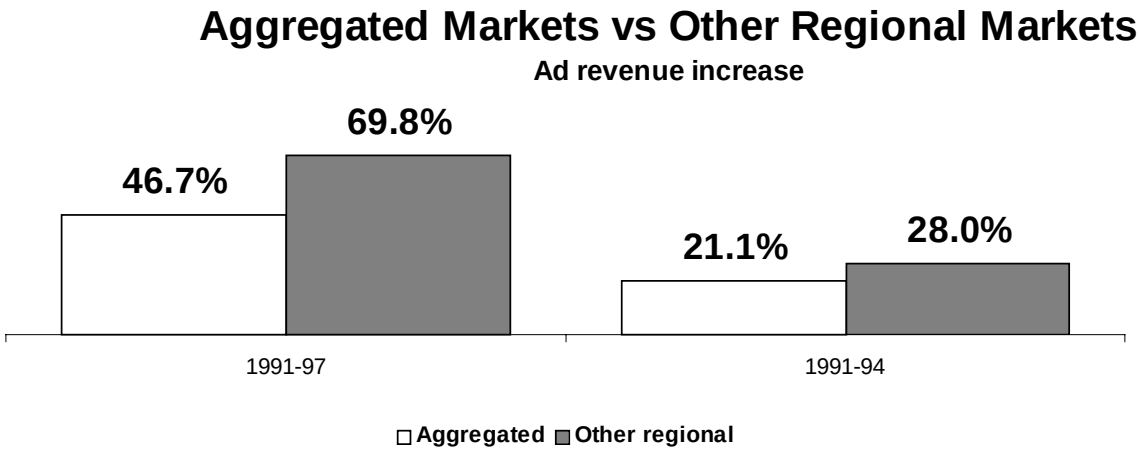
The longer-term effects were more equivocal; the introduction of third licences in Sydney, Melbourne, Adelaide and Brisbane in 1964-5 was followed by several years of strong growth and then 5-6 years of relative revenue stagnation. The industry did not experience strong revenue growth again until 1974. Perth experienced two years of very high growth after the third licence was introduced, but has since experienced growth only slightly above the metropolitan average.

More recently, the "aggregation" of regional commercial television markets across most of Eastern Australia introduced direct three-way commercial competition for the first time in four new markets, each of about one million people, which were "aggregated" from a number of smaller markets. It has resulted in no discernible increase in growth rate or revenue share for these markets. The following charts suggest that advertising revenue growth (in nominal dollars) for the aggregated markets was below that of other regional markets and of metropolitan markets for both the five year period to 1994 and the nine year period to 1997.[2]




1 Second licences have since been issued in several smaller markets, but revenue figures are not available.

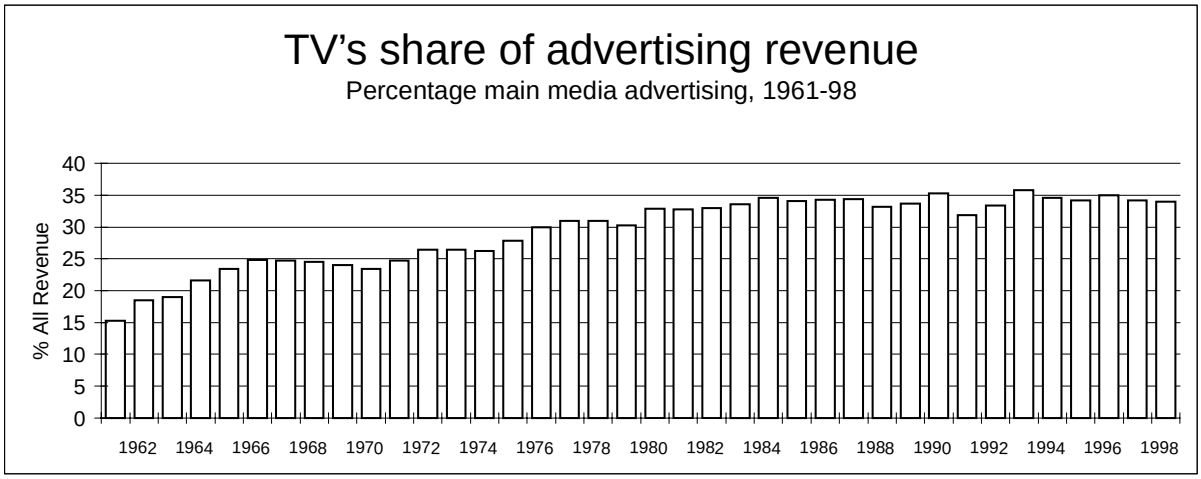
2 Aggregation began in 1989 in Southern NSW, 1990 in Northern NSW, and at the end of 1991 in Queensland and Victoria. Comparable revenue figures for 1997/98 are not available because of changes in the ABA's reporting format.



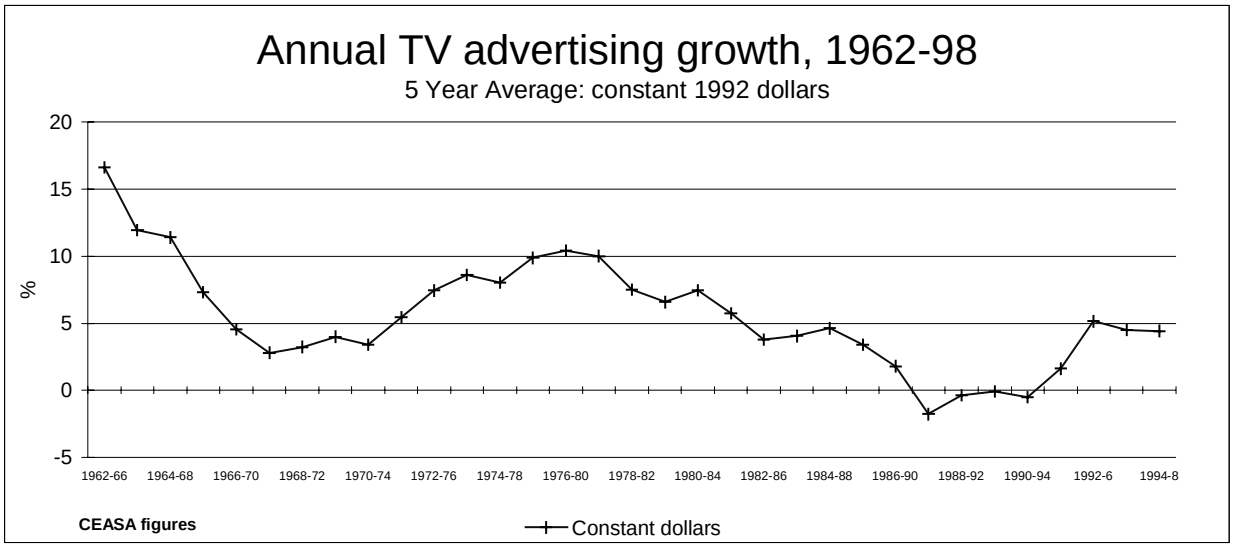

(b) **What would happen in current circumstances?**

Australian commercial television is a relatively mature industry, with low to moderate growth in advertising revenue, and a share of overall advertising revenue expenditure on the main media that has remained almost constant for almost 15 years.

The following chart shows commercial television's share of main media advertising. It points to four distinct growth stages over the past forty years: strong growth until the late 1960's, then a short period of limited growth, followed by very strong growth from the mid-1970's to the mid-1980's, and a return to limited growth since then.




When growth rates since 1961 are plotted (in constant 1989/90 dollars, to exclude as far as possible the distorting effects of inflation), this same growth pattern is apparent. The following chart shows clearly the two extended periods of very strong revenue growth, and the long period of modest growth since the mid-1980's.




The overall advertising revenue "pie" has expanded less than GDP in the 1990's (by 17.7% from 1990-98, as against 21.2% for non-farm GDP, in constant 1989/90 dollar terms). This reflects the severe impact on revenue of the 1991 recession, and the migration of marketing dollars to "below the line" expenditure (direct mail, point-of-sale advertising, etc). In the United States, the television industry's marketing arm estimates that advertising in main media has declined from 70% of the marketing dollar in 1970 to about 26% in 1998.[3] A similar shift is believed to have occurred in Australia.[4]

Commercial television's advertising revenue share has remained at 34% - 35% for the past 15 years. Television revenue share has also plateaued in recent years in comparable overseas markets – i.e. those that have well-established press, magazine, radio and outdoor media competing strongly with television for advertising revenue. Markets with strong across-the-board competition are pretty much limited to Canada, the United States and New Zealand (as in most European countries commercial television is quite a recent phenomenon, commercial radio scarcely exists, and the competitiveness of newspapers is often affected by local regulation). In each of these broadly comparable markets, free-to-air television accounts for 30% - 35% of advertising expenditure in main media.

Local and international experience suggests very clearly that, in a climate of limited revenue growth, the introduction of one or more new commercial licences to a mature market will not increase television advertising revenue growth or television's share of overall advertising. Advertisers will not spend more on television as a medium just because there are more commercial services. However, major advertisers would undoubtedly have to reallocate their television spending to ensure that they reached their target audience which would then be split between 4 or more commercial services, rather than three. This would inevitably affect the revenue of existing stations.

Independent analysis by the Bureau of Transport and Communications Economics in several studies over the past four years supports this broad conclusion. The BTCE calculated that in mature revenue markets, the introduction of new advertiser-supported services was unlikely

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3 TVB presentation, NAB Convention, Las Vegas, 6 April 1998.

4 CEASA estimates that direct marketing, promotion marketing and sponsorship currently make up 63.5% of total advertising expenditure (**Advertising Expenditure in Main Media, year ended 31 December 1998**, page 26).

to increase market revenue by more than about 1 percent. That would be only a fraction of normal annual growth in advertising revenue (which was 3.6% in constant 1989/90 dollars across all metropolitan markets over the five years to June 1999).

### (c) New licences: more choice for viewers and advertisers?

The main argument that has been put in favour of more commercial television services is that they would create more program choice and diversity for viewers. Diversity may be a worthwhile goal in itself in larger national markets. In markets like the United States, there are not the same direct trade-offs between fragmentation of viewing and revenue, and maintaining the scale required to commission and to produce a wide range of local programs. In Australia, Governments have recognised that this is a major issue. They have tried to provide more choice for viewers in ways calculated to cause less fragmentation than the introduction of new commercial television licences. This was part of the reason for the introduction of SBS in the early 1980's. Pay TV was also seen as a way in which viewers could **purchase** diversity without directly affecting the ability of free-to-air television networks to fund local programs.

#### Foreign programs

This approach by Government recognised that the only easily-supplied form of diversity is a wider choice of foreign programs, as these are the only programs that are already produced and available for purchase by local television program "retailers".[5] However, it is doubtful whether one or more new commercial television services would provide even this limited form of additional choice. Between them, the three commercial and two Government networks provide a breadth of foreign programming that exceeds that available in any other country.

For example, the commercial networks purchase much of what is commissioned by the five US networks, as well as many programs commissioned for US Pay TV. Surprisingly, this amounts to less than 2000 hours a year. This is because of the short television season in the US (34 weeks, as against 42 weeks in Australia) and the fact that network prime time in the US is confined to three hours or less each day. Up to a quarter of US programs are unsuitable for Australian television - these comprise reality programming of little relevance to Australia, or dramas with subject matter which is too parochial to appeal to Australian viewers.

However, Australian free-to-air commercial networks acquire and use virtually everything else commissioned in the US. Material of more limited appeal to Australian audiences is normally scheduled outside major viewing periods.

Any new commercial television service would have to rely heavily on foreign programming. This has been so with new commercial services in the United Kingdom (Channel Five) and in New Zealand (TV3 and TV4). For new services with limited resources, American programming has the compelling virtues of cheapness, high production values and familiarity to the audience.

News Limited told the Commission that if it acquired a commercial licence, it would do "something different" (Transcript, page 454). News Limited companies produce many of the

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[5] Local programs are produced only if broadcasters commission or directly produce them, so viewers can not "purchase" them independently of broadcasters. The only exceptions are the tiny amounts of local programming produced by Pay television.

American programs that are most popular in Australia; they have shown that they are capable of extending the boundaries of popular programming in the US market. Australian viewers already enjoy that programming. However, the scope for achieving anything remotely similar in a market one-fifteenth the size of the US simply does not exist. The compelling commercial strategy for new commercial stations would be to "network" US formats here. That would involve moving programs from the networks on which they currently appear to the new News Limited (or Disney or Warner Bros) network. Spreading foreign programs of significant appeal across more channels might be the extent of the "difference".

### Advertising

As regards benefits for advertisers, a fourth commercial service would increase available air time for television advertising in Australian markets by up to one-third. This would impact on advertising rates, but would not necessarily increase demand.[6] However, the resulting fragmentation of audience would, inevitably, increase the difficulty and cost to advertisers of reaching mass audiences.

There may be some perception that more commercial services would open up television to more advertisers. However, television is already a highly accessible advertising medium in Australia. Because of the local focus of Australian commercial television we have more television advertising services than most countries. Over 90 per cent of the population has three commercial television services available, in one or other of the 23 distinct commercial television advertising markets. This means that local television advertising is realistic and cost-effective for even quite small businesses. An average station in a very large market like Sydney has several thousand advertisers each year, most of whom would be in the small to medium category (with a significant minority spending less than $1,000 a year for exclusively off-peak advertising packages). Local advertisers account for 10%-15% of metropolitan station revenue.[7]

In smaller markets, television competes vigorously with press and radio for small advertisers. Local advertising comprises 30% or more of regional television station advertising revenue.[8] By contrast, in markets like the UK, where there are far fewer television markets, and where competition is more limited, television advertising is in practice restricted to large companies.

## (d) Local service levels

What distinguishes commercial television from most other industries is the range of community service requirements and service expectations embedded in the system. For over 40 years, governments have required commercial television to provide services over and above what could be expected from a purely market-driven system. Governments have brought this about by a combination of formal requirements and regulatory mechanisms intended to allow regulatory or community pressure to be brought to bear on stations. By limiting the number of commercial licences, Government has also sought to ensure that the revenue base is adequate for stations to meet these regulatory requirements and expectations.

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6 The BTCE's economic analysis of Australian data suggests that demand is not very responsive to the cost of advertisements (**Australian Commercial Television, 1986-1995** [Report 93, June 1996], page xix).

7 Non-agency revenue was 6% of metropolitan station revenue in 1997/98 according to ABA financial figures, but larger local advertisers represented by advertising agencies would have accounted for at least another 5%.

8 ABA financial figures, 1997/98.

**Australian-produced programs**

FACTS has made the point to the Commission that what the industry now provides by way of local service and Australian program production is at the limits of what can be produced in an industry of this size in foreseeable revenue circumstances. These levels of service reflect the revenue "high water mark" of the mid-1980's. The decade of extraordinary high growth up to the mid-1980's transformed commercial television by allowing stations, for the first time, to maintain a wide range of programs while introducing many high-cost programs (such as Australian drama). Previously stations had to choose one or the other course; for example, increases in drama quota levels in the early 1970's resulted in the cancellation of many other local programs, and a sharp fall in overall Australian content levels.

Since the mid-1980's, the industry has struggled to maintain the level of local programming it had achieved by then. One example of this is the sharp fall since 1990 in the number of miniseries and telemovies commissioned by stations. Then as now, the maximum hourly revenue than could be earned across a network was much less than the $350,000-$500,000 per hour that the miniseries or telemovie costs the broadcaster. In a high growth environment, broadcasters could justify broadcasting these kinds of programs frequently, as "loss leaders". Now they cannot.

Both FACTS and SPAA have told the Commission that high-end drama now relies on a mixture of overseas funding, government subsidy and deficit financing by production companies, in addition to the fees paid by broadcasters. It is becoming harder to raise enough from these sources to fund mini-series or telemovies. That is why the additional funding provided via the Commercial Television Production Fund from 1996-98 was so valuable (and why its cessation in June 1998 has, predictably, resulted in a sharp decline in high-end drama production).

Low revenue growth means that stations can no longer add new local programs (as they must, competitively) while retaining expenditure on existing programs. It is the reason why broadcast licence fees for many externally commissioned programs have been static for years. It is also why budgets for station-produced programs are uniformly lower than they were some years ago.

Over the past half-decade, substantial economies have been made in areas which do not affect the perceived quality of program production. Beyond this point, there is little scope for savings short of cancelling programs, or replacing programs with significantly lower cost genres.

In drama, relatively small changes in the economic environment might over time see one hour weekly series (such as *Murder Call* or *Blue Heelers*) replaced by 5 x half-hour weekly serials, costing less than half as much per hour to produce, and considerably less in broadcast licence fees. In current affairs, the same process might see *60 Minutes* include an increasing number of stories from its US namesake, and *Today Tonight* revert to a national (rather than State-based) format.

This is not a promising prospect, even in the absence of a major economic downturn or other major changes (such as the introduction of new commercial services). More profoundly negative consequences would flow from major economic shocks of that nature.

## Local service and regional infrastructure

Because local service and Australian program production have become a seamless mixture of regulated and market-driven service, it is hard to put a firm dollar figure on what would be at risk from the effective deregulation that would result from the introduction of new services.

In respect of local service, the critical areas are infrastructure and local and regional programming. Probably up to one quarter of regional transmission infrastructure is of marginal or negative revenue value to broadcasters. There are no compelling economic or competitive grounds to replace transmitters serving small, scattered populations when they wear out (whether with new analogue equipment, or with digital equipment).

On purely commercial grounds, regional broadcasters would presumably approach digital television on much the same basis as their largely deregulated New Zealand counterparts. New Zealand broadcasters plan to provide digital television services from only about one-tenth of current transmission sites – 46 out of 400 - as those few sites can reach approximately 95 per cent of the population. A recent report prepared for the New Zealand Television Broadcasters' Council commented: "…it would be difficult to conceive, even from a social policy perspective, that a roll-out of digital to more 'high sites' could be justified, given the small incremental population coverage achieved by these more remote sparsely viewer populated sites".[9]

Australian regional broadcasters are likely to receive some Government assistance to provide a more far-flung service than would make commercial sense, and to introduce it more rapidly than they might choose. However, they will still have to meet many of the resulting costs. In a deregulated environment, they would be no more likely to retain loss-making regional activities than banks and other private businesses.

## Local news

Both regional and metropolitan television broadcasters also provide more extensive local and regional news services than they could justify financially in a deregulated television environment. Regional services spend an estimated $30 million per year on local news, while metropolitan stations spend close to $100 million.[10] By contrast, Pay television services share a single news service - Sky News - that draws on Seven and Nine network news resources for most of its Australian news content.

Up to 50% of regional station news expenditure would be at risk from a drastic change in market circumstances. This would involve some half-hour daily regional bulletins being dropped, others reduced to five or ten minute segments, and a general reduction in staff numbers. One clear lesson from the regional aggregation experience is that local news is not an irreducible part of a local television service. At least one service in virtually every regional market no longer provides local news. The major cost savings are presumably considered to outweigh the loss of audience.

Changes in metropolitan markets would probably be less drastic, but would certainly include less extensive local coverage, greater reliance on bulletins networked across all cities

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9 Digital Television: Conversion, costs and considerations. Report to New Zealand Television Broadcasting Council, prepared by NZIER and McKerlie Consulting, April 1999, page 4.

10 Overall industry expenditure of $161 million on news and current affairs in 1998 also includes expenditure on Canberra and overseas bureaux, foreign news services and current affairs programs.

(particularly at weekends), and more use of foreign material to "bulk-out" bulletins. This could see news and current affairs expenditure fall by as much as 30%.

**Cars and culture**

Professor Snape commented that the industry's claims for continued protection seem no different from those made by car manufacturers in past decades (Transcript, page 302).

It is clearly difficult and disruptive to transform a regulated, partially protected market into an unregulated, fully contestable market. To that extent, there are some obvious similarities. However, television is a freely-available service that affects the lives of Australians to an extent that cannot seriously be compared to the experience of driving an Australian-made vehicle.

The uniqueness of the television industry arises from its universality and its key role as a transmitter of national cultural values in the form of Australian programs of every kind. The Government spends large amounts of money directly subsidising Australian film and television programs through its funding agencies and through the ABC and SBS. Government also ensures that commercial television spends a very much larger amount on Australian programs. It does so partly through regulation and administrative guidance, but much more significantly and indirectly by means of limiting access to television licences.

The SPAA submission commented that this achieved major cultural benefits at no cost to Government. It is certainly at no direct cost. In a deregulated marketplace, the retention of local news and current affairs, key culturally-relevant programming and local service infrastructure which commercial television currently provides could well involve additional direct Government expenditure of $150-200 million per annum. This estimate excludes the many millions of dollars worth of free air time which stations currently provide in support of local causes.

(e) **What happens longer term?**

Government policy support for high levels of local programming, local service and service quality is clearly inconsistent with the introduction of any new commercial television licences before 2008. In the current regulated environment, market forces produce high levels of local programming. Market forces would operate quite differently in a more fragmented revenue environment. Increased pressure on metropolitan stations - which produce and commission virtually all Australian programming other than regional local news - would result in major program changes that would have a cascading effect throughout the country.

These consequences would be both accelerated and intensified if competing services were introduced while industry resources were fully stretched by the introduction of digital television services. Whether the effects of new commercial services would be different a decade hence is impossible to assess now, as there are more imponderables about the industry's future than at any time since 1956. While the trend throughout society is unmistakably towards more competition and less regulation, any future Government will have to proceed with caution with any measures that could result in the loss to viewers of the benefits they take for granted. These benefits are the product of many decades of broadcasting development, but are closely tied to present industry structures.

## 3. Digital Television

Last year's digital television legislation was intended to take free-to-air television services through the difficult and risky transition to digital television with as little risk as possible to the quality and extent of service to viewers. This bipartisan policy concern explains why so many aspects of the transition are spelt out in considerable detail. It also explains the ban on new commercial television licences for most of the simulcast period, and why the proposed new datacasting licences were envisaged as providing largely complementary services that will not compete directly with commercial television for viewers or advertising revenue.

### (a) Why digital television is such a major advance

Before discussing the key issues relating to digital television, it may be useful to recapitulate why digital television, and HDTV in particular, is such a major step forward for consumers.

The analogue television system we now have is an improved version of television transmission systems developed in the late 1930's. It is a contemporary of the DC3 and the VW. Like them, it is robust and utilitarian, but falls far short of today's technology.

Until recently, there has been no alternative that was clearly superior to analogue television in terms of:

- picture quality
- resistance to interference
- spectrum efficiency
- flexibility of use.

Digital compression technology has changed that. It allows a stream of pictures containing up to four times the detail of an analogue television transmission to be compressed into a standard 7MHz television channel. It does that by removing redundant information within a single picture and between successive frames. If one part of the picture has not changed, the signal simply tells the receiver that, rather than transmitting duplicate picture information.
In this way, digital television can provide a television picture with up to twice the horizontal and twice the vertical resolution, in a wide screen format, and with CD-quality surround sound.

Digital television is also much more resistant to interference and ghosting. It will provide a near-perfect picture for viewers right out to the limits of signal coverage. Digital television signals also use spectrum much more efficiently. Digital television services do not need protection channels alongside them to limit interference. In fact, digital signals can be transmitted in the vacant protection channels alongside existing services. When analogue services eventually close, many more separate services will be possible in the same spectrum.

Because a digital television signal is a stream of digital data, it can take the form of video data (pictures), audio data (sound) or any other form of data, whether it is text or computer software code. The broadcast data stream can be split between these uses, or between multiple television program streams.

A single digital channel can support one cinema-quality HDTV program stream with leftover capacity for audio or data of other kinds. It can also carry up to four standard definition

program streams, of equivalent quality to today's television. This remarkable flexibility of use is what distinguishes digital television most clearly from analogue television. It is also the main reason for the regulatory difficulties it presents.

### (b) **The digital transition period**

Much of the focus in the hearings was on the first few years of the digital transition period. We made the point in our first submission, and at the hearings, that digital terrestrial television must be seen as the long-term replacement for a forty-three year old system.

The commercial television industry wants the transition to be as rapid as practicable, on cost and practicality grounds. This could conceivably involve heavy subsidies for decoders towards the end of the transition, to ensure that the last few percent of viewers without digital access are not abandoned. By that stage, decoders capable of decoding an HDTV signal to an analogue output should be low priced consumer electronic items.

We do not know whether there is a plausible business model for datacasters or others to provide heavily subsidised (or even free) decoders to most viewers early in the transition period, when the unit cost is likely to be at least $500 - 700. If someone can find a way to do this, and this speeds up the transition to digital reception by consumers, commercial television would welcome it unreservedly. The industry does not want an indefinite simulcast period.

We do not see the end of the simulcast period, and the return of analog spectrum to the Government, as necessarily linked in any way to the issue of new commercial licences. There has always been adequate spectrum available for new commercial licences, had any Government considered that this was desirable in the public interest. The decision to limit the number of metropolitan commercial licences to three has been made on grounds of cultural policy and service quality rather than spectrum scarcity. Cultural policy and service quality considerations are certain to be significant considerations in future decisions about broadcast spectrum allocation.

### (c) **HDTV**

The approach that Australia and the US are taking will allow broadcasters and other future users of the system maximum "head-room" to meet future consumer wishes. Over time, broadcasters may need to provide combinations of HDTV, multichannel services, datacasting and interactive services. The UK approach severely limits future uses of the system by allowing only enough allocated spectrum to provide standard definition service, datacasting or some interactivity, but no HDTV.[11]

We believe that HDTV will be the norm for all television services a decade from today, whether they are provided over-the-air, by cable or by satellite. Consumer demand for higher quality will drive this. Consumer demand will be sparked not only by broadcast HDTV, but by what competing video sources provide. Recorded DVDs already provides superior quality to PAL, and will provide true HDTV quality within the next 5-7 years. Satellite and cable

[11] Mr Blomfield (News Limited) suggested to the Commission that if broadcasters began digital transmission in standard definition, they could readily move to HDTV later (Transcript page 446). While the DVB standard would certainly allow this, the existence of large numbers of standard definition-only receivers in the market place would rule out the introduction of HDTV without an extended SDTV/HDTV "simulcast" period.

subscription services will probably be providing some HDTV within the next 4-5 years, if US experience is any indication.

Higher video quality will also be driven by Australian viewers' taste for large television sets. About 28% of Australians currently buy receivers with a screen size of 27" (68cm) or greater, as against less than 10% in 1988.

The cost of HDTV receivers will be the main constraint on the take-up rate of HDTV. One major US manufacturer (Thomson-RCA) has already announced a 27" (68cm) digital set (plus decoder) for release in the US from September at an estimated street price of $US1,949 (or $A2,950 at current exchange rates). The same manufacturer will be offering a 36" (100cm) digital set plus decoder for $US2,799 (or $A4,100).[12] This suggests that reasonably large sets (e.g. 68cm) should be available in Australia for under $4,000 at an early date.

We have reminded the Commission that huge numbers of Australians bought black and white sets at prices equivalent to $4,000 - 4,500 in 1956-7, and colour sets at prices not much lower than that in 1975-6. Australians have been quicker than most countries to take up new electronic products.

No one knows what the critical price-point will be for HDTV sets. We suspect, however, that when the price of a 33" - 35" (83cm-90cm) set falls to the equivalent of $2,500 in today's values, HDTV sets will account for at least one-third of new receiver purchases. That could be as early as 2004-5. If flat panel displays (e.g. plasma displays) become price-competitive with cathode ray and projection receivers by that time, an even greater proportion of new receiver sales is likely to be of large HDTV displays.

Until that time, most purchases of digital television reception equipment are likely to be of decoders to feed analogue sets.

### (d) **Digital channel planning**

FACTS believes very strongly that digital television must maintain the levels of coverage and service quality that viewers have come to expect as their right. Provided that digital channel planning preserves these key features of free-to-air television, we do not object to any remaining broadcast band spectrum being allocated for other purposes such as datacasting.

These coverage and service quality criteria are:

- digital coverage equivalent to existing analogue coverage (a requirement of the *Digital Conversion Act*, as well as a basic broadcaster objective)

- no appreciable increase in interference to the existing analogue services

- continued ability to provide local program and commercial inserts to part of a licence area (as is common with regional aggregated services, and also occurs in areas like the NSW Central Coast and the Gold Coast and Sunshine Coast)

- maintaining licence area integrity, which has always meant limiting commercial signal overlap by restrictions on transmission power levels.

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12 *TV Digest*, 10 May 1999, P.11.

**Limitations of Single Frequency Network use**

These criteria are perfectly compatible with efficient spectrum planning. However, they will probably allow only limited use of digital single-frequency networks (SFNs) while analogue services continue (which in metropolitan markets is likely to be until at least 2008).

The main reason for this limitation is that new metropolitan digital services will be on channels adjacent to existing services. This is being planned so that viewers can use their existing domestic antennas, but it does mean that power levels must be carefully balanced to avoid interference between the two signals. In practice, that means that transmitters have to be co-located to ensure that analogue and digital signal strength balance is maintained for most viewers. If subsidiary digital transmitters reuse the main digital channel in areas that are not completely masked from analogue main transmitter signals, it would result in unacceptable interference to analogue reception. This is because the higher digital signal strength from the nearby translator would drown out the more distant analogue signal.

The use of SFNs will also be restricted in areas where analogue translators are used not just to boost signal levels, but to insert localised program and commercial material. Within an SFN, there can be no program variation. Any digital SFN approaches for the NSW Central Coast, Gold Coast or Sunshine Coast will have to ensure that residents do not lose the localised services they enjoy. This means that more channels will be required for digital services than in a single SFN operating off the main digital channel. We do not believe that it would be acceptable to viewers to sacrifice a universal free-to-air service that they currently receive in order to free a channel for a datacasting service which is probably subscription in nature, and aimed at narrow information interests.

SFNs also have some other problems that may limit their use in certain circumstances. One is that the different modulation required in SFN makes the signal much more subject to interference from large vehicles and aircraft ("aircraft flutter"). In markets like Sydney, this is a big issue.

The large claims being made for SFNs ignore the fact that they have so far been used only in limited circumstances elsewhere, and never in a mixed analogue/digital environment such as we will have. Testing by broadcasters over the coming months should allow a much clearer assessment of how widely SFNs can be used without compromising the essential objective of unobstructed viewer access to free-to-air analogue and digital services.

**Other suggested approaches are flawed**

There have also been claims that fewer secondary digital transmitters would be needed if power levels of main digital transmitters were increased. Again, the use of adjacent frequencies for digital and analogue services means that a substantial increase in digital power levels would cause widespread interference to existing analogue reception. A substantial increase in digital power levels would also push digital signals well into adjacent licence areas. This would be commercially destabilising, particularly for smaller stations.

It has been suggested that this signal overlap could be controlled by requiring conditional access on all receivers. While this is technically possible, it would result in great inconvenience to viewers. Sets would have to be individually "authorised" to receive a particular free-to-air service, and if a viewer moved to another town, the receiver would have to be reauthorised.

While many Australians accept conditional access as a necessary part of subscription services, they might well be highly suspicious of its use for free-to-air services. We suspect that its use would stamp digital free-to-air television as intrusive, "big brother" technology. This would make promotion of digital television to the community immeasurably harder. A requirement to use conditional access would also add significantly to the operating cost of digital television, and make the system much more complex and error-prone.

Spectrum efficiency is just as important to broadcasters as it is to Government and other potential spectrum users. Extensive testing of digital transmission may show that greater spectrum efficiency is possible. However, the "quick fix" ideas proposed for conjuring up large amounts of spectrum for non-broadcast uses come at a steep cost - much higher levels of interference to existing services, loss of local service in some areas, and unacceptable restrictions on the private use of television receivers. FACTS believes that these restrictions would be unacceptable to most Australians.

### (e) **Digital decoders (set-top boxes) and inter-operability**

Many early purchasers may choose a cheaper digital decoder rather than a more expensive integrated HDTV digital receiver (which is the more familiar style of television combining a receiver and a display). The cheapest decoders likely to be available here will receive both standard definition and high definition digital signals, and decode and remodulate these signals so that they can be viewed on an existing (analogue) set.[13] They will be much cheaper than integrated HDTV receivers, but will not enable the viewer to view a digital signal as HDTV. However, they will still provide a number of the benefits of digital service: improved reception in areas that currently have substandard analog reception; reception of multichannel or enhanced services; and reception of datacasting services.

What may deter some consumers from purchasing these "basic boxes" is that the aspect ratio of many (possibly most) programs in the digital service will be different from the analogue service. As in the US and Europe, the digital service (whether HDTV or SDTV) will be broadcast in widescreen 16x9 aspect, as against the square 4x3 aspect of analogue services.[14] The decoder will either crop both sides of picture to fit it within a 4x3 analogue screen, or display a 16x9 "letterbox", with all the picture but with noticeable black bands top and bottom, or else flatten and stretch the picture to fill the screen. Any manipulation of the 16x9 image by a decoder will produce results that are less visually satisfying than professional format conversion by a broadcaster. The results are likely to be unsatisfactory to some viewers: in particular, research by set manufacturers suggests that many viewers do not like letterbox television pictures.[15]

When prices drop, consumers will probably prefer integrated digital HDTV sets or a modular combination of separate components consisting of a digital decoder, a separate HDTV display, and surround sound.

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[13] Other decoders will be available to receive and decode standard definition and high definition digital signals for use with a separate digital HDTV display.

[14] The wider 16:9 aspect ratio is generally regarded as a better display format, and has been incorporated in digital standards internationally to take advantage of the change in transmission system.

[15] Currently, only SBS regularly broadcasts movies in letterbox 16x9 format. Commercial stations usually reformat movies to 4x3 format.

Initially, decoders are likely to cost at least $A500-700, on the basis of advice FACTS has received from an overseas supplier. These estimates are based on low volumes (less than 10,000 units), so are higher than for typical commercial volumes. On the other hand, they do not include optional features which could add significantly to the cost, such as a modem, embedded conditional access, or IEEE 1394 interface (the recently adopted standard for connecting digital video equipment).

The following table gives estimated component costs for a decoder with a standard definition analogue output to an existing analogue set, but capable of decoding either an HDTV signal or a standard definition digital signal. The supplier commented that the price difference for a decoder capable only of decoding digital standard definition digital signals but not HDTV signals would be $US40-45 in 2000 and about $US20 by 2002.

**Decoder Costs**
**$US, FOB**

| | **$US** |
|---|---|
| Tuner & demodulator | 60 |
| Demultiplexer, demodulator and Analogue converter | 62 |
| System memory | 9 |
| MPEG memory | 8 |
| Power supply | 10 |
| Other components | 23 |
| Cabinet, packaging, cable | 12 |
| Audio out | 3 |
| Total Components | **187** |
| Manufacturing costs | 18 |
| Overhead | 10 |
| Manufacturer's margin (10%) | 19 |
| Total cost before licence | **206** |
| Licence charges | |
| Dolby | 1 |
| MPEG2 | 4 |
| DVB | 4 |
| FOB Price | **216** |
| By early 2000 | 190 |
| By late 2000 | 185 |
| By 2001 | 170 |

There may well be a market for standard definition-only hand-held devices, or plug-in cards for PC's, for use with datacasting services. However, few consumers are likely to be interested in decoders or sets which cannot receive HDTV transmissions, as these devices would simply "go to black" for many hours each day. In practice, manufacturers are unlikely to offer them here, because the cost difference is so slight.

**Interoperability issues**

Standard definition-only decoders are currently being used to receive digital satellite services (Austar, Foxtel, and the remote area commercial services). Fairfax has argued (in a press release dated 16 June 1999) that terrestrial broadcasters should be obliged to conform to the standard definition-only satellite DVB standard so that people with these set-top boxes do not have to acquire a second box. However, as satellite DVB decoders employ a different input frequency and use a different modulation from that of terrestrial DVB services, those decoders will be unable to receive even standard definition terrestrial digital services. Nor do they have provision for an add-on terrestrial DVB demodulator. Satellite service viewers will have no choice but to acquire a separate digital receiver or set-top box for terrestrial services, whether those services are in HDTV or standard definition.

There is also a significant longer-term issue at stake. Tying free-to-air digital services to a low-end technical standard means that HDTV could not in practice be introduced in the future. Faced with a population of lower-specified sets, broadcasters could introduce HDTV only by simulcasting HDTV and standard definition digital services indefinitely.

Fairfax and others have actually proposed this. They have urged the Government to require broadcasters to simulcast HDTV and standard definition signals within their 7MHz digital channels.

This unworkable proposal would have two permanent consequences. First, it would rule out full HDTV coverage of events such as AFL and Rugby League. HDTV coverage of high-speed action requires at least 17-18 of the available 20 M/bits, while a standard definition signal requires 4-5 M/bits. Secondly, while it would be possible to transmit less demanding material (movies, etc.) in HDTV and to include a simulcast standard definition signal within the same 7MHz channel, this would constrain broadcasters from providing ancillary services such as program enhancements or datacasting. That is clearly the main reason why Fairfax and others are pushing this proposal.

There are compelling reasons for going into digital television with the maximum “headroom” for future service enhancements. Australia is introducing a new broadcasting system which has no inherent “legacy” constraints. It will be with us for decades. It would be short-sighted in the extreme to shackle it to low-tech limitations such as standard definition video and MPEG-1 audio. This is in no sense gold-plating: it is future-proofing.

As indicated above, the additional cost to consumers will be marginal in the first few years, and then virtually non-existent. Ironically, some features which Fairfax and others want to be mandatory in all digital receivers - conditional access, modem connections, PC slots for different demodulators - would add much more to the cost of digital receivers, but might never be used by most viewers. FACTS believes that there should be provision for all of these features. However, they should be optional enhancements, rather than mandatory features. In that way, interoperable HDTV-capable receivers can be adapted to meet the needs of all users.

## (f) Datacasting

Broadcast spectrum is equally suited to wide-area datacasting as it is to television. However, most of the interactive datacasting uses suggested to the Commission are poorly suited to wide area broadcast transmission. Extensive use of high power broadcasting for “video on

demand" or other high-bandwidth interactive services would be impractical, as it could result in a small number of consumers commandeering all of the available bandwidth over a wide geographical area to download movies, software or games. These kinds of uses are clearly only suited to much higher capacity, broadband systems, or to cellular broadcasting. Cellular broadcasting allows the same frequency to be reused at close intervals, so that high demand by a small number of customers in one area does not deny service to customers elsewhere in a metropolis.

Some prospective datacasters have based their arguments for a full 7MHz television channel on implausible service models of this kind. Their real intentions presumably involve something very close to broadcasting. Most plausible datacasting models could be comfortably accommodated in a portion of a 7MHz channel. The needs of all aspiring datacasters could be achieved economically with one or more multiplexed 7MHz channels, offering datacasters anything from one-tenth to one-quarter of the 19.5 M/bit per second data capacity, depending on their requirements. Such an approach would obviously resolve most of the access issues that will arise if whole channels are allocated (given that markets like Sydney may not even have two channels free for datacasting).

**Competitive equity**

Datacasting licensees will in practice have a permanent advantage over broadcasters in relation to datacasting, as they will have much more data capacity available for full-time datacasting. Because broadcasters will be required to provide HDTV (and are strongly committed to providing it), they will have relatively little data capacity available for datacasting. At times when free-to-air broadcasters choose to provide enhancements for programs or advertisements in their digital service, they are likely to have no additional capacity for datacasting. They may thus be unable to compete effectively with datacasting licensees for third-party data business, where guaranteed capacity is likely to be a critical issue.

Free-to-air broadcasting licensees are ineligible to apply for datacasting licences. That means that companies that have a direct interest in broadcasting licences will be at a disadvantage to many other companies in developing datacasting businesses. For example, if Fairfax and News Limited are successful in acquiring datacasting licences, they will be free to develop their existing businesses into datacasting, whereas broadcasting companies with equally well-established commercial activities in the data services area will not be able to do so. In this respect, the *Digital Conversion Act* has tilted the table decisively in favour of companies with no direct free-to-air broadcasting interests.

The argument that free-to-air broadcasters will have substantial advantages in the delivery of commercial datacasting services is misconceived. First, broadcasters' capital investment will be immensely greater than that of datacasters because they must provide an infrastructure which covers the entire market. Datacasters are able to "cherry pick" markets, and to utilise broadcasters' infrastructure by virtue of the extensive access provisions in the legislation.

Secondly, licensed datacasters will have the benefit of piggybacking not only on the facilities but on the broadcast market created by free-to-air broadcasters. Datacasters could quite readily be operating now in non-broadcasting services band spectrum. They are attracted to the broadcasting services bands because they can, in effect, use other companies' investment in infrastructure and market development as a launching pad for their services.

Finally, in terms of established brands, it would be hard to maintain that any of the current broadcasting groups had a clear lead in data and information services over Fairfax, News Limited, Cable & Wireless Optus, Ozemail or AAPT, to name only the most prominent of those expressing interest in datacasting.

## 4. Anti-siphoning rules

Some evidence to the Commission may have suggested that sport is of diminishing significance on commercial television. It is not. Sport (most of it broadcast live) accounted for 15.6% of all television programming between 6.00am and midnight in 1998.[16]

We believe that the anti-siphoning provisions are the most effective way of ensuring that Australians can watch major sporting events on free television, while also allowing an expanded and complementary service on Pay television for those who can afford it. Overall, the regime works effectively in the interests of consumers.

The Commission heard evidence from others about acquisition of Pay television rights that requires some correction. In particular, the anti-siphoning provisions do not give free-to-air broadcasters priority access to Pay television rights. In many instances, a free-to-air broadcaster may indeed try to acquire both the free-to-air rights and Pay television rights. Whether they are successful depends entirely on the wishes of the rights owner. The broadcaster's aim is not intended to prevent Pay television coverage of the event, as the acquisition of Pay television rights is usually on condition that specified coverage is on sold to a Pay operator. Rather, it is intended to ensure that the Pay coverage complements the free-to-air coverage, rather than conflicting with it.

When a free-to-air broadcaster acquires both free-to-air and Pay rights to an event, it can ensure exclusivity for key parts of the coverage. This exclusivity can be critical to the commercial value of free-to-air coverage of sport. Advertisers and sponsors demand exclusivity. If the audience is divided between identical sporting coverage on free-to-air and Pay TV, the free-to-air station's ability to attract and preserve commercial sponsorship and advertising will be severely affected.

In short, market forces motivate free-to-air broadcasters to achieve exclusivity by purchasing both free-to-air and Pay rights to events both on and off the anti-siphoning list. The commercial motivations of rights owners and broadcasters also oblige broadcasters to sell complementary rights to Pay TV. Rightsholders are free to "package" rights so that they can maximise the price paid by free-to-air operators. Rightsholders that choose not to sell free-to-air and Pay rights together can and do sell these rights separately.

If legislation were to prevent rightsholders from selling Pay rights to free-to-air broadcasters, it would benefit Pay operators for no apparent public interest or competition policy reason. The short-term result would be frequent conflicting coverage (e.g. match of the day, centre court match at Wimbledon), while the longer-term result would be a sharp contraction in free-to-air sports coverage (and, incidentally, reduced licensing fees to rightsholders).

As noted above, in some cases the owner of the rights will only permit free-to-air broadcasters to acquire free-to-air rights. Also, because of a loophole in the legislation, a related company to the pay television operator is sometimes able to acquire the free-to-air rights, or refuse to offer exclusivity. Negotiations for even free-to-air rights are difficult in these circumstances, because the related company wishes to ensure maximum coverage on pay television, and thus may charge exorbitant prices for the free-to-air rights. This loophole clearly undermines the efficacy of the list, and we have made submissions to Government in relation to this.

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16 ABA *Trends & Issues*, August 1999, Page 9

In discussion on the "separate rights" issue, the Commission suggested (Transcript Page 325) that the commercial impact of lower viewing and loss of exclusivity might be mitigated by lower rights fees payable for non-exclusive events. This might be so if rights fees represented virtually the whole cost to the broadcaster of a sporting event. As it is, the high production cost of local sport means that rights fees are only part of the overall cost to the broadcaster; a significant fall in rights fees may have only a minor impact on the overall program cost. On the other hand, the loss of exclusivity will combine with the drop in viewing levels to produce an exaggerated revenue impact, as advertisers switch to programs where they can secure market exclusivity.

## 5. On-air correction of mistakes

The Commission asked FACTS to provide further information on industry policies on on-air correction of mistakes.

Stations do broadcast corrections when it is the appropriate way of responding to a factual misstatement. Where a factual misstatement is of a minor nature, broadcasters normally respond in writing to the person or persons who raise it. This happens regularly as part of the industry complaints process. The general policy of most stations is to rely on legal advice in relation to the broadcast of corrections. Where there has been a complaint about material broadcast, and particularly where there is a threat of litigation, a station generally will not broadcast a correction unless it is in settlement of all claims and the station can be assured that it will not be sued. The reason for this is that if a correction is broadcast, it will usually have the effect of removing many defences to defamation proceedings that might otherwise be available.

In this respect it is important to note an important difference vis a vis the Australian Press Council. The Press Council will not even investigate matters unless the complainant agrees not to sue the newspaper concerned. There is no similar process for broadcasters, since people can (and do) choose both to sue and to complain to the ABA. This means that if (for example) the ABA recommended the broadcast of a correction, and this was done, the complainant could immediately sue and the broadcaster would have an open legal liability.

It is, of course, far easier and less costly for print media to run a correction. It can be placed anywhere on any page, and the number of pages can be expanded or contracted to suite the publisher. Broadcasters can only present their content in linear fashion: anything that a broadcaster inserts into the program stream denies space to other content.

Given these difficulties, it is usually easier for broadcasters to provide written corrections. As noted above, this is done regularly as part of the industry complaints system, but also often as part of a settlement agreement with complainants.