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**Impact of removing multicasting
regulations on competition and
efficiency in commercial free to air and
pay TV markets in Australia**

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EXECUTIVE SUMMARY

This report reviews what lessons and guidance international experience can offer on the likely impact of removing restrictions on multi-channeling by Free to Air (FTA) TV Broadcasters in Australia.

The term ‘multi-channeling’ refers to the transmission of multiple content streams. This has been common-place via the cable and satellite transmission platforms for many years. Digitalisation facilitates multi-channeling via terrestrial transmission both technically and commercially. Digital terrestrial transmission (DTT) enables multiple content streams to be transmitted over broadcast spectrum that could carry just one content stream via analogue transmission. For clarity, this document uses the term ‘multi-channeling’ to refer to the transmission of multiple content streams by whatever platform – cable, satellite and DTT. The term ‘multicasting’ is used to refer to multi-channeling over the air (OTA) via DTT.

The countries studied for this purpose are US, Canada, UK, Germany, Japan and Korea

The report consists of 4 chapters

Chapter one – Describes and compares the regulatory frameworks of the respective countries in relation to licensing of broadcasting and in particular multicasting or multi-channeling over-the-air (OTA) via DTT;

Chapter two - Compares market conditions and trends focusing on market concentration and trends in consumer preferences between countries;

Chapter three – focuses specifically on the nature of multicasting experience, and its impact in the countries;

Chapter four - brings together conclusions on what lessons and guidance international experience can offer on the likely impact of removing restrictions on multicasting by FTA TV Broadcasters in Australia and/or adding a fourth license.

The main points arising from our work to date on the questions set for the report by the terms of reference are as follows.

Comparative analysis of FTA and pay TV market concentration in Australia

The Australian TV market appears more concentrated than all of the markets studied in this report being the US, Canada, UK, Germany, Japan and Korea

- *What trends are there in consumer preferences? Are viewing tastes becoming more or less homogeneous?*

Consumer preferences for TV services are inherently diverse, and the satisfaction of this diversity is constrained by the range of services and choices offered. As the range of services has expanded one has observed a greater degree of satisfaction of consumer preferences and consequent market segmentation, often referred to as audience fragmentation. Australia is notable for the extent to which audience fragmentation has been modest relative to similar markets. However, this is more likely to reflect constrained options, notably the low availability of multi-channel services, than greater homogeneity of preferences on the part of Australian audiences.

- *What developed countries have permitted multi-channeling via terrestrial broadcasting?*

Developed countries which have permitted multi-channeling (henceforth multicasting) via terrestrial broadcasting include the United States of America, United Kingdom, Germany, Canada, South Korea, Japan, Spain, the Netherlands, Sweden, Finland, France, Italy, Portugal, Ireland, and Austria. In addition South Africa has permitted ownership of enough spectrum in analogue to offer multi-channelled services from one operator ((M-Net). The countries we focus on in this report are the United States, Canada, the United Kingdom, and Germany.

- *Which of these countries permit a subscription television model over terrestrial broadcasting?*

Of those countries which have permitted multicasting, the United States, United Kingdom, Spain, the Netherlands and France also allow subscription services to be offered over the terrestrial platform.

- *What have been the impacts when multi channeling and subscription television by terrestrial broadcast have been introduced in the overseas jurisdictions? This analysis should cover issues such as*

Changes in the levels of advertising.

Commercial multicasting services substantially increase the broadcasting hours available for advertising and indeed, commercial FTA multicasting services are predicated on increasing viewers' total exposure to advertising.

Quality of programming.

Multicasting, by its very nature, substantially increases the responsiveness of content to viewer preferences, and therefore increases the quality of programming relative to consumer preferences. While multicasting contributes to audience fragmentation, the experience in the US suggests that revenue levels may hold up nevertheless, with the result that the ability to invest in content has so far not decreased.

Price.

Multicasting increases the supply of advertising slots and contributes to audience fragmentation, thereby decreasing the number of viewers of mass market offerings. While the former may place downward pressure on prices to advertisers, depending on a number of factors, there is some evidence audience fragmentation increases the value per-viewer for the leaders in viewer share. The resulting increase in price per viewer may offset or reduce the decline in the number of viewers.

Growth in digital penetration.

Multicasting appears to have a significant impact on digital penetration, especially in markets where multi-channeling via other platforms has limited availability or penetration. Multicasting offers an incentive for digital conversion at a fraction of the cost of converting to a high definition service. The only additional consumer equipment required is a digital set top box, which in the UK can be obtained for 60 pounds (around A\$150). Relative to the modest cost of the STB, standard definition DTT services offer a number of advantages from a viewer perspective, including a wider range of content options, an improved picture aspect ratio, stereo sound and less interference and a clearer picture.

Response from cable and satellite providers.

Multicasting reduces the difference, from a consumer perspective, between the OTA platform, on the one hand, and cable and satellite, on the other, because it enables multi-channeling on all three platforms. Further, multicasting makes OTA subscription models possible. There is some evidence the prospect of multicasting services may encourage other platforms to increase the range of content and in the US some observers believe that multicasting may encourage cable and satellite subscriber services to offer “less for less” packages.

- *What have been the approaches to multi-channeling in different overseas countries? That is, what have been the business case applied to supplying multi-channels, such as whether the multi-channeling have been national or regional*

signals, how many channels have been re-broadcast, have multi-channels been targeted at particular demographics etc.

In Germany, with OTA reception at less than 10 percent, and digital roll-out on a regional basis, there is little incentive to create new program content for OTA and the OTA multiplexes thus rebroadcast FTA program services from cable and satellite. Similarly, in Japan, DTT services are derived from existing analogue services.

In the UK, the Freeview multicast platform rebroadcasts existing program services from other multi-channel offerings, new programming is being developed, for Freeview (and perhaps other platforms). Freeview is funded primarily from the broadcast license fee and is based on drawing audiences to a wide range of content streams previously unavailable via FTA.

In the US, the multicast services of commercial broadcasters are intended to maintain audience share (and advertising revenue) in light of viewer migration to non-OTA programming services. The low penetration of OTA digital reception and lack of defined carriage rights by cable operators has meant that multicast digital programs are either low cost or already existing, including:

- Rebroadcast local news and continuous weather radar
- “Public affairs” programming
- Broadcast of sports events when schedules conflict (with sports or non-sports programming).
- Broadcast of foreign language programming not otherwise broadcast
- Broadcast of an additional network where the network has no coverage in a particular locality.
- Rebroadcast of “classic” or children’s programming by non-commercial stations.

Conversely, some US broadcasters are beginning to offer a pay multicast service (along with the obligatory free-to-air digital program stream) to compete with cable on a “less-for-less” strategy, based on pooling of digital spectrum to carry a limited number of popular subscription cable channels. The FCC recent announcement that it will remove the simulcast requirement, may provide a further boost to multicasting

Generally in markets where there is already a high level of multi-channeling available via other platforms (generally in the US, Canada and Germany), offerings are more likely to focus on HDTV and therefore need to trade off multicast SDTV offerings with a single HDTV offering. Conversely, in markets with low levels of multi-channeling via other platforms (Salt Lake City, Spain and the UK) there have been experiments in funding multi-casting or DTT multi-channeling via subscription.

- *What are the similarities and differences between the Australia market and the particular overseas markets studied?*

Australian audiences appear at least as diverse and sophisticated in their preferences as those in comparable markets. The overall population and market in Australia is smaller than many other markets, although there is good purchasing power and significant concentration in large metropolitan centres. Metropolitan Australia is more reliant on terrestrial distribution than comparable markets i.e. much lower penetration of cable creating significant opportunity for multicasting. Significant geographic areas outside FTA coverage rely on satellite.

Australian regulatory arrangements appear to limit participation and constrain supply and competition more than in the other countries studied. As a result the Australian market exhibits a higher level of market concentration and a lower level of multi-channeling availability, and penetration, with the risk that audiences may not enjoy the number and range of content streams available in other markets to meet their preferences. Similarly, advertisers may face a more limited number of suppliers and more limited options for targeting audiences, with the possible result that overall television advertising costs may be higher than in other markets and significant advertising expenditure may be diverted to alternative media.

DTT conversion rate and available programming time or output appears low for market size with commensurate potential to increase viewing levels. Low cost content appears to be available and as with other markets, digitalisation is reducing costs of content acquisition and packaging, reducing the revenue threshold for the viability of new services

While FTA revenues increased in real terms since 1994, there has been no increase in supply. In 2003, rates increased in proportion to the increase in TV advertising expenditure. Australian total advertising expenditure appears comparable relative to other markets. Overall financial performance of commercial FTA sector appears strong

The Pay sector is relatively weak due to delayed start, anti-siphoning rules (sport) and rise of DVD (movies).

- *Is there any guidance from the overseas markets studied about the relative impacts of allowing multi-channeling or additional FTA licenses?*

The table below summarizes the available policy choices in relation to multicasting and allowing additional FTA licenses. In the south west corner, or cell (0) one has the current policy situation of 2 national licenses and 3 commercial licenses with no multicasting. By permitting multicasting the policy setting would move north to cell (I). Alternatively by permitting a new license, the policy setting would move east to cell (II). In cell (III) both multicasting and a fourth license are permitted.

Table 1.1

(I) Multicasting only permitted	(III) Multicasting and new license
(0) Current Situation	(II) Issue new license only

Our tentative conclusion on the comparative evidence is that given the similarities and differences with other markets, **both** multicasting **and** an additional license appear feasible. Basically many of the local markets in Australia are under served presently by OTA and multi-channel services, relative to comparable countries where available content through cable and satellite platforms, and licensed OTA broadcast, is much greater. Both policy options, allowing multicasting and issuing an additional FTA license, will have a positive impact on competition and efficiency in the sense that both will lead to higher quantity of output (programs) and lower prices (advertising fees).

Moreover US and UK experience is that multicasting, plus an additional license would have the greatest beneficial effects on competition and efficiency - i.e. compared to the current situation, or doing only one or the other policy change. In short the effects of multicasting would be enhanced by a fourth license and similarly the effects of the fourth license will be enhanced with multicasting.

As to the relative impacts of allowing multicasting, or an additional FTA license, this depends on a number of factors including:

- First the form of multicasting permitted – in particular how many more channels will licensees be able, entitled and/or required to generate, and what will be the overall potential marginal increase in supply to the market?
- Second given the potential increase in output implied by multicasting, will this lead to a situation of potential excess supply, or a potential for the parties to produce more output than the market would sustain commercially?
- Third the extent to which other platforms exist providing multi-channeling to market - i.e. cable penetration:
- Fourth the extent to which multicasting involves a lower marginal cost means of offering multi-channeling: and
- Finally features of demand, and in particular the extent to which it is elastic, and currently supply constrained.

The situation in Australia appears to be that demand for multi- channeling services is highly constrained. In particular the low penetration of cable and satellite implies this relative to overseas. There is therefore likely to be a latent elastic demand for multi-channeling in Australia, similar to that observed overseas. The key question then is which method for providing the additional service is likely to do so at lowest cost – multicasting

or a fourth license, cable or satellite. The system with the lowest marginal cost stands able to contribute the most to competition and efficiency in meeting the latent demand.

On this point it is clear the marginal cost of adding an additional video stream by multicasting, or adding on additional video stream to the existing DTT infrastructure now in place in Australia, is lower than the marginal cost of doing so through licensing a fourth provider but not allowing multicasting. In order to launch only one more channel a fourth license would need to incur the roll out cost, and the higher operating cost of a start up. The marginal cost of existing providers of DTT adding one more channel would clearly be less.

Indeed the likely marginal cost of multicasting by current providers of DTT would appear to be lower than the marginal cost of extending either cable coverage, or satellite coverage as a means of providing multi-channeling. This point seems straight forward for cable coverage where cable may have to be laid out, and physical connections established to new houses. In the case of satellite it also appears that on the one hand the satellite set top box is more expensive than the digital to analogue converter, while on the other hand the out door antennae required for satellite is more expensive than using existing UHF antennae to secure DTT reception.

In general the lower the relative marginal cost of multicasting, the lower the current quantity provided, and the more elastic the demand, the more likely allowing multicasting will have a larger efficiency impact than issuing an additional FTA license. The higher the marginal cost savings from multicasting, the greater the output response will be when multicasting is allowed. If the current quantity provided with 3 players is low, and if the demand is elastic, the low quantity is more likely to be driven by cost considerations than a lack of competitive constraint. In which case, an additional FTA license is unlikely to have as large an effect on competition and efficiency as allowing multicasting.

Our tentative view at this stage is that while multicasting may not directly effect market concentration, as it does not directly increase the number of players, it will change the dynamics of the industry and potentially lead to changes in the intensity of competition and degree of vertical integration. Multicasting will therefore have a significant impact on competition and efficiency. It would enhance the incentives to compete between existing players to the extent it in effect increases their available inventory, but more importantly it would increase potential market supply, output and choice by more, therefore offering greater potential efficiency gains.

While a fourth commercial license by itself might enhance rivalry, it would only increase the potential size of market supply or available choice by one commercial channel, at most a 33 percent increase in the number of commercial channels. By comparison allowing all existing license holders to multicast using existing spectrum could increase potential supply or output by up to 4 or 5 times, or by up to 400% to 500%. Under conditions of excess supply, implicit or explicit collusion is more difficult and market concentration of lesser competitive concern.

1 CHAPTER ONE: Introduction to Broadcast Licensing Regimes

At the outset, it is important to note that each country's television marketplace is highly idiosyncratic, and an understanding of both the differences and similarities among markets is crucial to placing the "lessons learned" from each country in the appropriate context.

Most importantly, the structure and dynamics of the broadcast television industry in each country is largely determined by regulation and (with the exception of the United States¹) the presence of a governmentally-sponsored national broadcaster. Not surprisingly, direct comparisons between the consequences on incumbents of the introduction of competition—and an assessment of their relevance to the Australian situation—must take into consideration these regulatory/political differences.

We shall try to identify the similarities and differences between the countries studied and the Australian system by organising the comparison around certain key or central features of the Australian system

1. **Prohibition on broadcasting without a license**

Like Australia all countries in the study prohibit broadcasting without a license

2. **Types of Licenses**

Australia separately licenses the following different broadcasting services.

- a) National Television – spectrum was reserved for these licenses in the Broadcast Service bands – currently 2 have been issued to ABC and SBS.
- b) Commercial Television Broadcasting – These licenses permit for profit service provision, but prohibit the charging of fees to users. The licenses are issued in local areas. Service may be delivered using any platform, however historically services have been provided using the broadcasting services bands of the spectrum. Apparatus licenses are issued as part of the broadcasting license
- c) Community Television Broadcasting – These licenses are for non-profit broadcasting and the licenses are issued in local areas. Service may be delivered using any platform, however historically services have been provided using the

¹ In the US, non-commercial broadcaster licenses are awarded to non-profit, educational, and local governmental organizations. Some of these stations receive programming from the partially tax-funded Public Broadcasting Service, which provides content, but does not operate stations.

- broadcasting services bands of the spectrum. Apparatus licenses are issued as part of the broadcasting license
- d) Commercial Subscription Television – These licenses permit for profit and for fee or subscription broadcasting. The service may be delivered by HFC cable, satellite, or MDS apparatus license. The first two subscription licenses were auctioned and granted permission to broadcast and second access to the satellite. All other subscription licenses are issued over the counter by the ABA on application and payment of a fee. Some are distributed by Multi-point distribution service which were issued at auction.

By comparison for Over the Air Broadcasting

- i) In the US, licenses are awarded for specific communities, with limits on the number of stations a single operator can own (based on percentage of national audience). Non-commercial broadcasters receive tax support, among other funding sources, but there is no license fee on television sets.
- ii) In Canada licenses are by community, but with no national audience limits; and non-commercial broadcasters receive tax support, among other funding sources, but there is no license fee on television sets.
- iii) In the UK, commercial channels generally are awarded on a national basis. There is also a national Broadcaster, the BBC, supported by license fees assessed on viewers
- iv) In Germany, licenses are not awarded by a federal agency, but by each state (Lander). There are also two groups of regional networks, ARD and ZDF, supported by license fees assessed on viewers and which broadcast throughout Germany.

All countries further license non-broadcast “video program distribution platforms,” (e.g., cable or direct-broadcast satellite operators), with cable being licensed nationally in the UK and Canada, and locally in the US and Germany.

In addition, Canada and the UK individually license each video program service.

3. Number of Commercial Broadcasting Licenses

In Australia there can be no more commercial Broadcasting licenses issued until 2006. In the UK and Germany no new analog licenses are being awarded, and the spectrum scheme is now based on the licensing of digital multiplexes. In the US, licenses have been allotted by community, based on interference considerations; if unused they may be applied for without consideration of the effect on other broadcasters. In Canada, the licensing of new stations takes economic factors into consideration.

4. **Restrictions on Cross Ownership**

In Australia, broadcasters are only allowed to own one license in each area. In the US, two stations may be owned in some markets; the FCC is attempting to expand the size of markets for which “duopolies” are allowed, and permit three stations to be commonly owned in the largest markets, under specified circumstances. In Canada, there is a single for ownership policy for local markets, to which exceptions have been permitted.

5. **Allocation of Spectrum**

In Australia Spectrum is allocated to support Broadcasting. Similarly, other countries allocate spectrum for over-the-air television.

6. **Prohibition on Subscription Revenue**

In Australia licensed OTA or spectrum based broadcasters (analogue or digital) are not allowed to charge subscribers – i.e. they must rely on advertising revenue, and are therefore called “Free to Air”. In the US, terrestrial pay TV requires FCC authorization, but there has been no market for it; the situation may change for DTV. There, multicasting is allowed, with pay permitted as long as there is a free-to-air program stream.

7. **Mandated Introduction of Digital Television (SDTV and HDTV)**

In Australia all holders of broadcast licenses are required to simultaneously offer their analogue service in digital (in both HDTV and SDTV formats) in their license areas. For the six capital cities plus Canberra this occurred in January 2001. A single standard for this digital service was also required. The license holders were loaned additional spectrum to achieve simulcasting. They were required during the simulcast period to broadcast a minimum of 20 hours in High Definition TV (HDTV) quality

HDTV is not an element of terrestrial digital television in Europe, is a regulatory priority for digital broadcasters in Canada, and is encouraged, but not required, in the US. Consequently, authorities in Germany and the UK focused on additional channels and services as a key consumer benefit of digital television, while regulators in the US and Canada focused on HDTV as the driving force for consumer acceptance of digital.

8. **Prohibition on Multi-channeling in Simulcast Period**

In Australia during the simulcast period, multicasting by commercial FTA broadcasters is effectively not allowed, to the extent any digitally broadcast channel has to be simultaneously broadcast on analogue, and a moratorium has been placed on issuing the additional spectrum therefore required to support multicasting. This effective prohibition on multi channeling does not apply in the other countries studied.

9. **Ownership of Transmission Infrastructure**

In the UK and Germany, towers and transmitters are not owned by broadcasters but by third-party providers, Crown Castle and NTL in the UK and Deutsche Telekom in Germany. Broadcasters generally own their transmission equipment in the US and Canada, although multiple broadcasters may share a common mast.

10. **Relationship between Broadcasters and non-broadcast Platform Operators**

In each country, broadcast stations have “must-carry” rights with respect to cable operators (but in Germany, broadcasters pay a fee to cable operators). In the US and Canada, these rights extend to satellite operators (under the local market-by-local market “carry-one, carry-all rule in the US). In the UK and Germany, broadcasters make arrangements with satellite operators to be carried (i.e., funds may flow to the satellite operator from the broadcaster). In the US, in contrast, broadcasters can attempt to negotiate “retransmission consent” agreements with both cable and satellite operators. Agreements with cable operators are usually not for cash, but other concessions such as carriage of cable-only channels produced by the media enterprise that owns the broadcast station at issue. Satellite operators may pay cash to the broadcast station for the right to carry the station.

11. **Content Regulation of Commercial Broadcasters**

In the UK, broadcasters must achieve very specific purpose and content objectives; in Canada, very specific local content requirements must be achieved, and advertising limits are set as well; in the US, content and advertising requirements generally are much less. In Germany, broadcast regulation is under the control of each state.

12. **Terminology**

Finally, terminology differs among countries and may confuse. In the UK, subscription platforms (i.e., cable and satellite) are referred to as “pay TV,” as in Australia. In the US, Canada, and Germany, the platforms, themselves, would just be called cable or satellite. In the US, channels that could be obtained through the monthly cable charge are known as basic or “extended basic.” Channels for which there is a per-channel charge are called “premium.” In Canada, non-broadcast channels included in a monthly charge are denominated as “specialty” by regulators; “pay” only refers to those with a monthly charge. In Germany, channels that come with the basic platform charge are known as “Free-to-Air;” “pay” refers only to those channels with an additional monthly charge. (The German terminology may reflect the fact that, because programmers pay the platform operator for carriage, cable subscription charges are relatively low; and Free-to-Air satellite channels can be viewed by anybody with an appropriate dish and converter box without monthly charge.)

2 CHAPTER TWO: Market Conditions and Trends

This chapter addresses two specific introductory questions set for the report by the ACCC.

- First it compares FTA and pay TV market concentration in Australia with overseas countries;
- Second it assesses trends in consumer preferences and in particular whether viewing tastes becoming more or less homogeneous?

2.1 A Comparative Analysis of FTA and Pay TV Market Concentration in Australia with Overseas Countries

To develop a comparative analysis of market concentration, one needs to

- First decide on a metric or basis to be used to measure concentration; and
- Second define the relevant market in which concentration is to be measured.

We propose to use two approaches to measuring concentration ²

- Number of Licensed Broadcasters. This approach focuses on the number of licensed broadcasters in each market. The assumption being that the fewer the license providers the more concentrated is the market;
- Audience Share. This approach measures the share of the viewing audience captured by the respective licensed broadcasters.

Defining the market to be used as the basis for measuring concentration requires slightly more clarification. Markets can be defined according to product, functional, geographic and time dimensions. The diagram bellow highlights the many intermediate products, transactions, and therefore potentially markets that occur at various stages in the supply chain to ensure delivered television services to end users.

Commercial FTA and Pay TV markets are two sided markets, consisting of both viewers and advertisers, as indicated at the bottom of the diagram below. The diagram moreover highlights that TV services can be delivered to consumers via different platforms. At the

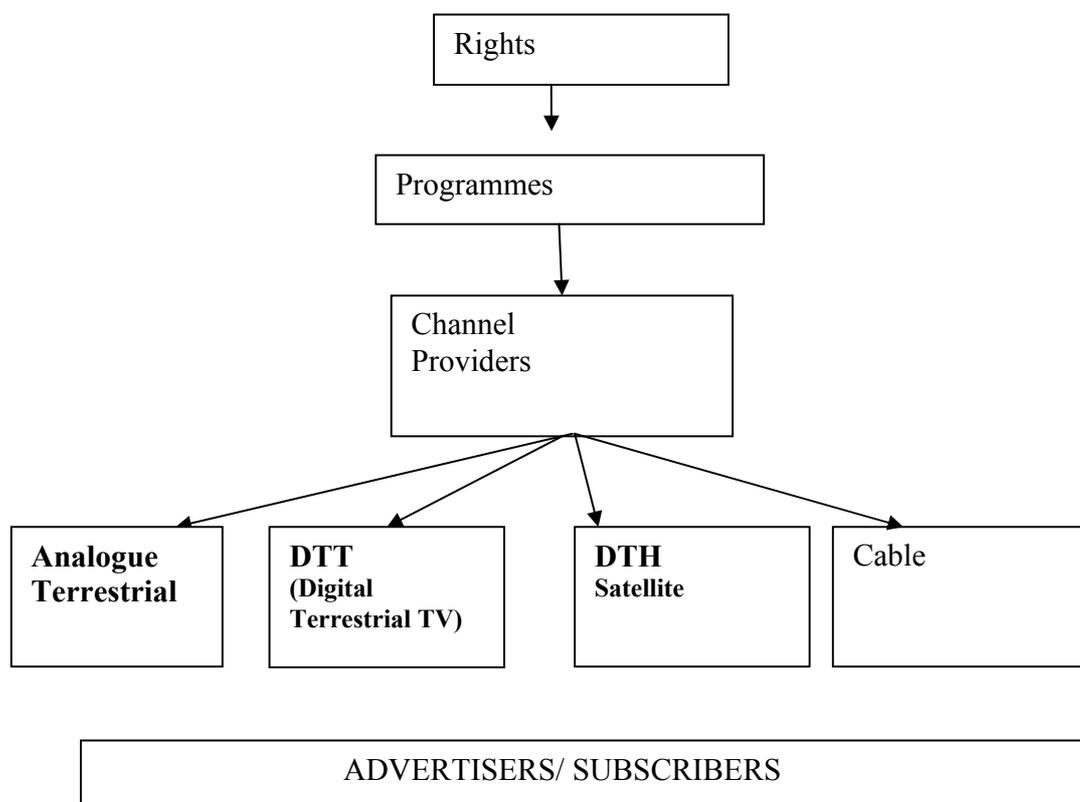
² PC report page 353 – “Several approaches can be used, either alone or in combination, to measure concentration across different media. These include:

- the number of licences controlled by a single entity;
- financial measures; and
- audience based measures.”

extreme left hand side one has spectrum based analogue terrestrial delivery. As one moves right the diagram further distinguishes, spectrum based digital terrestrial delivery, then satellite delivery and finally cable based delivery. As noted in the last chapter in all countries studied broadcasting by any of these means is illegal without a license.

In what follows we shall begin by focusing on TV services delivered under license to consumers using analogue or digital terrestrial delivery, or the left hand side of the diagram, for which one basically has a series of local geographic markets. We then proceed to consider services offered via the alternative platforms (i.e. satellite and cable on the right hand side of the diagram).

CHART 2.1



We shall begin our comparison of market concentration using the number of licenses issued in a market area as the relevant measure. We shall finally examine concentration using shares of viewing audience.

2.1.1 Market Concentration in Over-the-air (OTA) Spectrum Based Broadcast Services

At the time of its inquiry into broadcasting in March 2000 the Productivity Commission reviewed allegations of market concentration in Australia. It noted in its report that many inquiry participants claimed that Australia's media industries were concentrated by world standards, but few gave any concrete comparisons. It also noted while such claims are difficult to assess, they appear to have been influenced by the high concentration in Australian newspaper markets

The Productivity Commission concluded that while differences in reporting make it difficult to compare the numbers of free to air channels across countries:

“Australia’s FTA industry is no more highly concentrated than in many other places. Many OECD countries had fewer television channels than Australia in 1995. Today Australia (with three commercial networks and two national television networks) compares reasonably with the United States (one public and four private), the United Kingdom (two public and three private but now with multi-channeling) and Japan (two public and five private) (OECD 1997). “

This Productivity Commission's conclusion that Australia's market concentration in Free to Air may be no less than other countries may be sensitive to the geographic dimension used to define the relevant market.

In Australia, spectrum based broadcasting (analogue and digital) or “Free to Air” licenses are allocated by local areas. There are a total of 27 license areas and the number of licenses issued varies by area. Thus some areas have the 5 licensed broadcasts referred to by the Productivity Commission while others have less. The two licensed national broadcasters (ABC and SBS) are present in every license area, but not all areas enjoy the same number of licensed commercial broadcasts. As the table below shows in Australia nearly a third of the population enjoy two or less licensed OTA commercial broadcasts.

TABLE 2.1

Number of Licenses in Area	National License	Commercial License	Population Covered	% of Total Population
3	2	1	2,993,992	14%
4	2	2	3,714,513	17%
5	2	3	15,174,380	69%

Source: www.aba.gov.au

Using a weighted average the above data indicates that the average Australian enjoys a total of 2.6 licensed commercial broadcasts, and 4.6 licensed broadcast in total. The table below indicates the US viewer on average enjoys over twice as many licensed commercial broadcasts as the Australian viewer, and the Canadians nearly forty percent more.

TABLE 2.2

	Australia	US	Canada	UK
Commercial	2.6	6.2	3.5	3
Total	4.6	8.2	TBC	5

Notes UK channel holders are licensed to multicast

The foregoing aggregate data suggests that disaggregating national data by geographic license area may reveal quite a different picture on market concentration from that outlined by the Productivity Commission at a national level. Table 2.3 below presents the data for each of the 27 license areas in Australia used for the above analysis. As the table clearly shows Australia's population is highly concentrated in a relatively small number of license areas. Thus the top eight license areas include nearly 80% of the population.

TABLE 2.3

License Area	Population	Commercial	National	Total
Sydney	3997323 18%	3	2	5
Melbourne	3666363 35%	3	2	5
Brisbane	2167789 45%	3	2	5
NSW (Northern)	1876081 54%	2	2	4
Queensland (Regional)	1418716 60%	3	2	5
Perth	1409391 66%	3	2	5
NSW (Southern)	1251634 72%	3	2	5
Adelaide	1226849 78%	3	2	5
Victoria (regional)	1019336 82%	2	2	4
Victoria (Western)	562573 85%	1	2	3
Western Australia (Remote & Regional)	496322 87%	1	2	3
Victoria (Eastern)	456763 89%	1	2	3
Tasmania	453776 91%	2	2	4
Remote Central and Eastern AU (1)	442512 93%	1	2	3
Remote Central and Eastern AU (2)	421796 95%	1	2	3
South West and Great Southern	260303 97%	1	2	3
Western Australia (Remote) - Western Zone	169352 97%	1	2	3
Darwin	111122 98%	2	2	4
Spencer Gulf	108776 98%	2	2	4
Mount Gambier/ Southeast	66725 99%	1	2	3
Griffith and MIA	66112 99%	2	2	4
Mildura/Sunraysia	58612 99%	2	2	4
Kalgoorlie	53435 99%	1	2	3
Geraldton	43495 100%	1	2	3
Riverland	36315 100%	3	2	5
Mt Isa	20716 100%	1	2	3
Broken Hill	20698 100%	2	2	4

Source; www.aba.gov.au

For the purpose of further analysis given it is relatively easy to compare local market concentration by main cities internationally, the approach we have adopted is to focus initially on the license areas covering the five main metropolitan capital cities in Australia with populations over a million, namely Sydney, Melbourne, Perth and

Adelaide. These five license areas cover nearly 60% of the Australian population. The issue is how market concentration in these centres compares to that in equivalent cities overseas.

For this purpose the Table below compares the number of licensed OTA broadcasters in US cities that are comparable to the five Australian metropolitan centres. The table lists the number of full service licenses only, and excludes low power/community licenses. Also some cities may be able to receive adjacent market signals - so these are minima.

Table 2.4 – Licensed TV Broadcasts by Equivalent US City ³

Australian Centre	USA Comparable City	Popln (000)	Major Networks	Independents/ Other Networks	Non Commercial/Educational	Total
Sydney		3,997	3		2	5
	Minneapolis-St Paul	4,068	4	4	2	10
	Miami-Ft Lauderdale	3,994	4	7	2	13
Melbourne		3,666	3		2	5
	Cleveland	3,734	4	5	2	11
	Denver	3,522	4	7	4	15
Brisbane		2,168	3		2	5
	Salt Lake City	2,362	4	5	4	13
	Milwaukee	2,126	4	5	2	11
Perth		1,409	3		2	5
	Buffalo	1,547	4	5	1	10
	Austin	1,466	4	2	1	7
Adelaide		1,226	3		2	5
	Richmond	1,240	4	1	2	7
	Tulsa	1,230	4	6	2	12

Source: LECG coverage analysis; Warren Communications News, Television & Cable Factbook 2003

As the above table reveals equivalent sized US city audiences generally have access at a minimum to over twice as many OTA licensed broadcasts as Australian Metropolitan audiences.

Further as the Table 2.5 below shows equivalent sized Canadian city audiences can have access to even more licensed OTA broadcasts depending on their proximity to the US border.

³ Television stations licensed in the market whose signal covers the named city; excludes low-power TV stations. Each full-power station also has been assigned a digital channel.

Table 2.5 – Licensed Broadcasts by Equivalent Canadian City

		Popln (000)	Licensed ¹	US Station ²	Other ²	Total
Sydney		3,997				
	Montreal	4,333	8	6	7	21
Melbourne		3,666				
	Vancouver	3,124	6	5	3	14
Brisbane		2,168				
Perth		1,409				
	Edmonton	1,397	6			6
	Calgary	1,346	4		2	6
Adelaide		1,226				

1. Source Television Bureau of Canada, TV Basics, 2003-04, pages 24,26,28 www.tvb.ca/tvbasics.pdf - Listing of stations that are rated by the Canadian Broadcast Bureau of Measurement (BBM) by licensed market area
2. Source: Website operated by Global Network, www.canada.com/entertainment/television.htm Global Network is owned by CanWest which owns Ten network in Australia. The “other” category includes low powered stations not rated by the BBM and adjacent market stations.

UK

The UK has four national FTA analogue television services, two commercial (ITV and Four) and two funded from broadcast license fees charged to viewers (BBC1 and BBC2). In addition, more than 80% of the population receives a fifth service, known as Five.

In parallel with Channel 4, there is a Welsh language television service, S4C. The ITV network consists of a series of smaller regionally based services with a number of owners. However, 90% of the content is shown simultaneously across the network.

Accordingly, every city in the UK comparable in size with the five major markets in Australia has five analogue FTA services.

In addition, there are a number of FTA digital services, including Freeview with around 30 content streams, including two additional Welsh language services offered by S4C.

Conclusion

The evidence we have assembled suggests an apparently high concentration of licensed broadcasters in Australian license areas. This tends to contradict the Productivity Commissions tentative conclusion in 2000, but adds to the significance of the Productivity Commission’s comment that:

“although strong economies of scale and scope in broadcasting will tend to drive concentration, the structure of broadcasting in most countries seems to owe as

much or more to regulatory intervention and spectrum scarcity as to what the market might support”.

2.1.2 Cable, Satellite and Subscription Services

It appears that this conclusion of higher relative levels of concentration in licensed OTA broadcast markets in Australia may only be reinforced if one expands the market definition to consider the range of licensed subscription services available by cable and satellite

As Table 2.6 below shows using OECD data the percentage of homes passed by a cable television Network in Australia in 2001 was considerably less than those in the other countries listed.⁴ This means the overseas audience’s greater selection of OTA licensed services is amplified by greater access to cable based services as well.

TABLE 2.6

Country	% Home passed by Cable	Number of Subscribers
Australia	19 %	760,000
United States	97.1	69,000,000
Canada	90	7,868,000
Germany	82.6	21,800,000
United Kingdom	50	3,618,000
Japan	27.1	13,030,000

Source: OECD Communications Outlook 2003

This picture of concentration in Australian markets is reinforced further as one adds the availability of Satellite services. Table 2.7 below supplements the list of total licensed OTA channels for comparable overseas cities as before, with data on market penetration of first cable and then Satellite for the major cities.

⁴ OECD Communications Outlook 2003

TABLE 2.7

		Popln (000)	Comparative Australian City	OTA Stations ²	Cable Penetration ³ %	Satellite Penetration ³ %
USA	Minneapolis- St Paul	4,068	Sydney	10	55.9	19.4
	Miami- Ft Lauderdale	3,994	Sydney	13	74.3	18.7
	Cleveland	3,734	Melbourne	11	71.9	13.4
	Denver	3,522	Melbourne	15	58.9	25.3
	Salt Lake City	2,362	Brisbane	13	43.6	29.3
	Milwaukee	2,126	Brisbane		63.9	11.9
	Buffalo	1,547	Perth/Adelaide	10	73	16.7
	Austin	1,466	Perth/Adelaide	7	68.4	17.4
	Richmond	1,240	Perth/Adelaide	7	62.9	24.3
	Tulsa	1,230	Perth/Adelaide	12	59.7	25.4
Canada ¹	Montreal	4,333	Sydney	21	62	18
	Vancouver	3,124	Melbourne	14	84	10
	Edmonton	1,397	Perth/Adelaide	6	57	31
	Calgary	1,346	Perth/Adelaide	6	69	19

1. Source Television Bureau of Canada, TV Basics, 2003-04, and "Cable's Erosion Accelerates – ADS Becomes A Serious Threat to Local Cable Advertising", http://www.tvb.org/localnumbers/current_dma.asp
2. US stations are licensed stations (Table 2.4); Canadian stations are total available stations (Table 2.5)
3. The penetration statistics are relative to Households with TV's i.e. does not including the non TV households

Conclusion

As one expands the market definition to include cable, satellite or subscription services, the conclusion that Australian TV markets may be relatively concentrated is reinforced.

Our information suggests for example that the Australian audience is more dependent on licensed over the air services compared to overseas audiences, with around 80% of homes not passed by cable. By comparison the percentage of over-the-air-only households is lower in other countries, and ranges from about 8 percent in Germany to over 50 percent in the UK. In the US only about 15% of households with television sets rely only on OTA services, although a greater percentage have secondary sets that are not connected to satellite or cable services.

In other countries moreover, for example the US and Canada, there are moreover multiple (regional) cable operators and multiple direct broadcast providers with national scope. Further, these service providers, as well as broadcast groups control pay networks, so that no one pay platform operator has control over pay content. In addition, US television stations broadcasting ABC, CBS, Fox, and NBC networks are available to most Canadians over cable and satellite, if not via stations near the border.

2.1.3 Audience Share Concentration

Turning to measures of concentration using audience share it also appears on this measure that Australia is a comparatively more concentrated market than the other countries in our study. The Table below shows the cumulative market share of the top four firms for the countries studied. Thus in Australia the first row of the table shows that the market share captured by the top firm is 30.3%, the second row shows the total share captured by the top two firms is 56.7%, and so, on rising to 95.2% of the audience being captured by the top 4 firms in Australia.

TABLE 2.8: Top Firms Cumulative Market Share – N- Firm Market Concentration Ratio

	Australia	UK	Japan	S.Korea	Germany	US	Canada
Top 1	30.3	26.5	24.4	20	14.6	13.1	14
Top 2	56.7	50.4	46.9	40	28.9	25.6	27
Top 3	79.7	61.6	69.2	57	42.8	35	34.6
Top 4	95.2	71.4	87.5	73	56.1	43.5	34.6

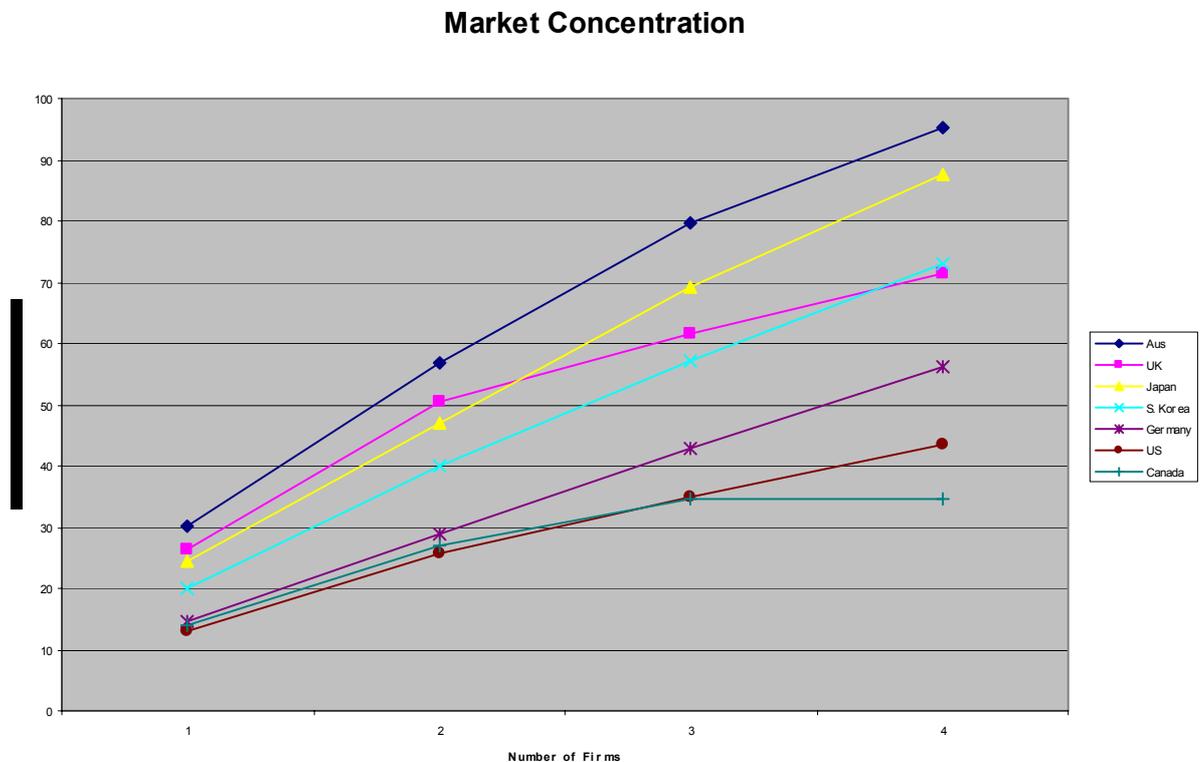
Source: IDATE: The World Television Market 2004

Reading across the first row it is clear that in Australia, the top network channel by audience share captures a greater share of the market than that achieved by the top network channel in any of the other markets studied. Indeed the top service provider at 30.3% secures over twice as much of the national audience share as that achieved by the most popular channel in Germany (14.6%), the US (13.1%) and Canada (14%).

As the data in each of the rows of the above table further confirms, and can be seen more clearly in the diagram below, not only the top firm, but cumulatively the top 2, top 3, and top 4 firms in Australia together respectively also capture greater market shares than that observed in any other country studied.

In short the cumulative market share of the top firms in Australia is consistently greater than any other country studied. This is clearly seen in the diagram below which plots the “n-firm concentration ratio” for the top four firms. On this basis one can conclude that the Australian TV market is more concentrated than any of the other countries studied.

Chart 2.1.



2.2 What trends are there in consumer preferences? Are Viewing tastes becoming more or less homogenous?

2.2.1 Introduction

Commercial FTA and Pay TV serve two types of customers, viewers and advertisers. Such markets are often described as two sided. Before discussing trends in consumer preferences, it is useful to describe the demand for Free to Air (FTA) and pay TV services in Australia more generally. This is relevant to considering the similarities and differences between Australia and certain overseas markets, and possible guidance from overseas markets about the relative impacts of allowing multicasting or an additional commercial FTA license.

2.2.2 The Nature of the Demand Side of TV Markets

Commercial FTA

Commercial FTA broadcasters are sensitive to viewer preferences, but this is mediated by the preferences of advertisers, which significantly modify the role of viewer preferences on the nature and timing of FTA content. Under the business model for commercial FTA analogue television, FTA suppliers need to create an audience to ‘sell’ to advertisers. The revenue from the ‘sale’ of audiences pays for the purchase of content necessary to attract audiences.

An important feature of this model is that advertisers value some audiences more highly than others, depending principally on the audience’s:

- level of discretionary income; and
- propensity to adopt new products and switch supplier/brands.

The effect is to skew the price or cost per thousand viewers (CPM) advertisers are prepared to pay commercial FTA suppliers in favour of younger, higher income, urban consumers and away from older, lower income, regional consumers. Further, under conditions of constrained FTA supply, there is limited scope to segment audiences. As a result, FTA advertisers are likely to target broader audiences rather than possibly more valuable audience segments – for example they may target the top four income deciles rather than the top decile. This may result in some advertisers who wish to target specific segments opting for alternative electronic and non-electronic media.

The differential value of audiences significantly affects the nature and timing of the content screened. The relationship between the cost of content and the value of content in terms of attracting viewers is complex. High cost content can attract small audiences that are unattractive to advertisers, while low cost content can attract very large audiences that are highly attractive to advertisers.

Commercial FTA suppliers are therefore always seeking to minimise the cost of content necessary to attract a large audience and to maximise the price advertisers are prepared to pay for that audience. From a commercial FTA perspective, the ideal is low cost content that attracts a high proportion of high income, young viewers, as this maximises the margin between the content acquisition cost and revenue. So called reality television programs are an obvious recent manifestation of this commercial imperative. Related to this, in the absence of local content quotas, there is a risk that commercial FTA suppliers would prefer imported to local content, because the latter is likely to be more expensive relative to its revenue earning potential.

Under conditions of bandwidth scarcity and shortage of FTA supply, an inherent feature of commercial FTA is that a large portion of the audience may not be satisfied with the

content available during peak viewing times. Content targeted at younger audiences may not be to the taste of older audiences. Moreover, content targeted at the mass market may not suit certain viewer segments (minorities).

Further, because of scheduling constraints, the potential FTA audience for a given program may not be achieved. To illustrate, a program that attracts 30% of the prime time audience is likely to prevail over a program that could attract 25% of the audience. As a result, the second program is scheduled outside prime time and may only attract a rating of 12.5% or 50% of its potential rating.

Scheduling constraints leave commercial FTA audiences with dilemmas – they can:

- *at a convenient time*, view content that does not fully meet their preferences, or
- view content that more fully meets their preferences but *at an inconvenient time*, or
- switch to alternative forms of electronic media.

Electronic media alternatives include non-commercial FTA, Pay TV, cinema, DVD/VCR, games and, increasingly, new media – the internet. Of course viewers may also switch off altogether and read a book.

Pay TV market segment

The Pay TV business model is based on Pay TV operators providing content in return for subscription charges direct to viewers, supplemented by modest levels of advertising revenue. From a viewer perspective, Pay TV has two important dimensions:

- Access to premium content, notably live sporting events and recently released movies
- A large range of program streams enabling continuous access to specialised content or genres, notably sport, movies, ‘adult’, news, music and children’s programming.

Under conditions of bandwidth scarcity, Pay TV has typically not been transmitted terrestrially and has instead been transmitted by cable and satellite. However, in a digital world, subscription based television services may be viable via terrestrial broadcast.

The business model for Pay TV involves substantial initial and ongoing investment, including:

- The infrastructure necessary to sustain a multi-channel service – cable roll out and/or satellite transponder purchase/rental;
- The infrastructure and staff necessary to package multiple content streams – the head-end;

- The cost of conditional access devices – set top box decoders, the cost of which is often not fully recovered from set up charges and instead funded over time from subscription revenues; and
- the retail systems and support necessary to sustain the subscriber base, including call centre and payment collections systems.

Pay TV operators typically focus on two ends of the market:

- High income earners – while this group may not be high consumers of Pay TV, the subscription cost is modest relative to their disposable income; and
- High television users – while this group may be on low incomes, they watch a lot of television and the subscription may be good value for the number of hours watched and relative to alternatives such as a high level of DVD/VCR hire.

Relative to commercial FTA, while Pay TV operators face a number of additional capital and operating costs, depending on contract terms and the level of customer churn, they may have a more stable and predictable revenue stream. Advertising revenues, on the other hand, are highly sensitive to consumer confidence and changes in consumption levels. Further, the forward advertising market is often quite short and/or thin⁵. This can leave FTA operators with a high level of revenue uncertainty.

On the other hand, if Pay TV operators have a significant customer base, or substantial shareholder backing, they are in a strong position to attract viewers by way of obtaining exclusive access to premium, time sensitive content, such as major sporting events. Because of greater revenue certainty, Pay TV operators are often in a position to outbid FTA operators for premium content as they can make longer term commitments.

This leads to a situation known to commercial FTA operators as the ‘vicious spiral’:

1. The FTA operator loses the competition for premium content against the Pay TV operator;
2. The FTA operator’s ratings and hence advertising revenues fall;
3. In the next round, the FTA operator has a lower revenue base from which to bid for content and so is more likely to lose further content to the Pay TV operator; and

⁵ The forward advertising slot market typically shortens during periods where a reduction in total advertising expenditure is occurring or expected to occur (for example during early 2003 as a result of the effect on consumer sentiment of SARs/Iraq), or where there is increased uncertainty regarding relative broadcaster performance (for example, during the 2001 ratings provider changeover from AC Nielsen to OzTAM, there was higher uncertainty regarding the validity of audience ratings data). The further evolution of electronic advertising slot booking systems raises the possibility of a real time market for advertising slots.

4. The cycle is repeated with the FTA operator getting weaker each time.

However, the key risk faced by Pay TV operators is that market penetration and per user subscription revenues do not reach the levels necessary to sustain the large fixed cost of Pay TV operations. To the extent viewers have alternative means of accessing premium content, this risk obviously increases. Potential threats to Pay TV include:

- The ability, as a result of digitalisation, for commercial FTA operators to offer multi-channeling and hence blur or reduce one of the distinctive features of the Pay TV offering;
- With the growth of broadband, the ability of viewers to access time sensitive material via the internet; and
- With the penetration of DVD/ and widescreen home entertainment systems, the ability of viewers to access premium electronic media content (i.e. movies) elsewhere.

2.2.3 Consumer Preferences

Introduction

It is difficult, if not impossible, to observe changes in consumer preferences, but it is possible to observe changes in the way consumer preferences are expressed. As these are observable, the focus here is on trends in the *expression* of content preferences by consumers.

Consumers are now offered a substantially greater volume and range of electronic media content options, across a growing range of delivery systems and playback devices. DVD, games and the internet are increasingly competing for the amount of time consumers devote to electronic media and communications devices⁶.

These changes have substantially increased consumers' ability to express their preferences. Full consideration of consumer preference trends regarding the consumption of electronic media content should therefore take into account changes in games console, DVD and internet usage, as well as magazine and newspaper circulation, and cinema patronage. However, there are significant data limitations regarding the total consumption of electronic and non-electronic media content.

Measuring consumer preferences

⁶ IDATE report for 2004, page 20.

A distinctive characteristic of FTA television is inherent uncertainty regarding the level of consumption (viewing hours) of broadcast content. This characteristic contrasts with Pay TV and other media where the number of subscribers or the number of magazines or newspapers sold can be known with a high level of certainty. It also contrasts with Online where the number of discrete viewers and page downloads can also be measured with a high level of precision. The main source of data regarding television viewing consumption is generated by television audience measurement companies on behalf of broadcasters.

In Australia, the official ratings company since 2001 is OzTAM⁷. Previously, this role had been undertaken by AC Nielsen⁸, which continues to generate ratings data for radio and also around 18 regional television services⁹ not covered by OzTAM's panel.

The OzTAM service focuses on the 13million person metropolitan market consisting of the five major capital cities. This represents around two thirds of the population, but 75.6% of total television advertising expenditure nationally¹⁰. This market is served by six major providers, Nine, Seven, Ten, the ABC, Foxtel (Pay) and SBS.

The OzTAM ratings process is summarized below:

1. Establishment survey – this is a large scale survey to define the population to be represented and its characteristics – demographic profiles. Respondents to the survey form a pool of households from which the panel homes are recruited.
2. The panel – Panel homes are selected according to statistical criteria intended to ensure that the panel is representative.
3. The people meter – a people meter is installed on every TV set in each household with television. It records and stores four pieces of information: TV set on/off, channel tuned, persons viewing 24 hours, for every day of the year.
4. Transmission – every night the data stored in the people meter is retrieved automatically via telephone
5. Consolidation and production – the data is then consolidated and validated to generate an audience data base – individual by individual, minute by minute data.
6. Distribution – each morning the consolidated data is available for secure download by OzTAM clients – TV stations, advertising agencies, advertisers and others.

A number of ratings measures are produced, including:

⁷ See <http://www.oztam.com.au/index.html>

⁸ See <http://www.nielsenmedia.com.au/MRI.asp>.

⁹ See http://www.nielsenmedia.com.au/MRI_pages.asp?MRIID=21

¹⁰ CAESA Op. Cit.

- a. Rating – the estimated audience that is tuned to a particular station at a particular time, expressed in household or people terms. Ratings can also be expressed in thousands or percentages across a programme or time period.
- b. Reach – the number or percentage of different people who have seen ‘X’ minutes (reach threshold) of a programme or time band;
- c. Share – the percentage of total TV viewing audience watching a specific station. This can be aggregated over a single programme, a day part, a day, a week, month or year; and
- d. People using television (PUT) – PUT is an estimate of the number or percentage of people in a demographic¹¹ that are viewing television at a particular time.

The rating indicator is useful in considering changes in the proportion of the population watching the most popular content. The viewer share indicator is useful in identifying the extent to which consumption is allocated between service providers, including between Pay and FTA. The PUT indicator is useful in terms of assessing the extent to which the population may be switching away from television to alternatives.

The ratings data generated by OzTAM is the major driver determining the relative price of the advertising ‘real estate’ or slots available on Australian commercial FTA services – both between different times and between different operators. The data is the major source of information on which total Australian FTA television advertising expenditure of \$2.9billion per annum¹² is allocated between the four major commercial television operators.

Accordingly, the ratings process receives a significant amount of critical scrutiny. This was especially apparent during the changeover to OzTAM where the data suggested viewing trends at variance with the data that was being generated by the AC Nielsen panel¹³.

The ratings data have a number of limitations including:

- The size of the panel is 3000 households or an estimated 0.054% of the population being represented (an estimated 7,334 individuals out of 13,655,600)¹⁴;
- The ratings system does not actually measure television *viewing*, but rather the status of the television set and the number of people present¹⁵;

¹¹ This can be defined in terms of age, gender, geography and a number of other factors.

¹² CAESA Op. Cit.

¹³ The AC Nielsen panel produced a higher rating for Nine.

¹⁴ OzTAM Universe Estimates report for 2004.

- The people meters do not measure the time the *television set* is being used for purposes other than watching television, notably games and DVD¹⁶;

Finally, in terms of present purposes, the people meters do not measure the allocation of time between total use of the television set and *other* media viewing devices (e.g. computers) for the consumption of media content.

The ratings system therefore provides a partial but imperfect means of measuring the impact of the wider range of electronic media options available to Australian consumers over, say, the last 10 years. Despite these limitations, the ratings data could be used to measure changes in the overall level of television viewing over the last 10 years and thus to infer the extent to which viewers are opting to obtain news and entertainment from alternatives to television.

On the basis of ratings data for the last 10 years, a picture could be drawn based on the following:

- Changes in the people using television statistic (PUT). A reduction in the PUT value, expressed as a percentage, over a representative number of times of the day and week, could provide an indication of the extent to which consumers are tending to switch to other forms of media.
- Changes in the ratings, expressed as percentages of, say, the top 10 television programmes over a year. A reduction in the ratings suggests that a smaller percentage of the total population is viewing the most popular programmes. This could mean one or both of two things – (a) reduced homogeneity in viewing tastes, or (b) a reduction in television viewing. By factoring out the change in the PUT statistic, it may be possible to estimate any change in viewing tastes among the PUT population.
- Changes in the make up of viewer share in the FTA sector, both commercial and non-commercial, and thus the extent to which the distribution of viewer share has changed. For example, a decrease in the most popular and an increase in the least popular service, or vice versa, might suggest a change in the overall level of homogeneity.

Unfortunately, in part due to the changeover from AC Nielsen to OzTAM, obtaining ratings data over the last ten years has proved to be problematic and expensive¹⁷ and thus the data is not available at the time of writing. Accordingly, the remainder of this section

¹⁵ That is to say, the ratings do not measure viewer attention or involvement. According to a report in the Sydney Morning Herald dated 29 July 2004, Channel Seven has been experimenting with shorter advertising breaks to ascertain whether viewer recall (or attentiveness) is improved, in which case Seven may seek to test advertisers' appetite for higher impact (and higher priced) advertisements.

¹⁶ OzTAM people meters appear to register VCR recording, but it is unclear on the information currently available whether the meters also measure DVD and games console usage.

¹⁷ AC Nielsen indicated that the price for the ratings data would exceed \$4,000 ex GST, while OzTAM has provisionally quoted \$954.89, ex GST.

focuses on identifying Australian trends that are apparent from the available data, and then comparing these with international trends.

Some discernible Australian trends

This section identifies discernible Australian trends based on available sources and data. The first point to note is that, since 1994, the only major¹⁸ change in terms of the supply of television content has been associated with the advent of Pay TV. The number of FTA services available has remained at five. The ability of consumers to express their preferences via changes in the number of available FTA services is unchanged.

The rise of Pay TV

In 1994 Pay TV services in Australia had not been established¹⁹. By 2001, the combined reach of the three major Pay TV services was 1.4m²⁰ out of the then 6.9m households, or 20% of households.

The most recent data for the first seven months of 2004 suggest that total Pay TV *content* captured 12.9% of the share of viewing time in the metropolitan TV market.²¹ This means that, of the total amount of commercial television consumption, around 13% has been directed toward services that offer content that is not available via FTA.

Note 60.7% of Foxtel's share of viewing relates to rebroadcasts of the five FTA services²², reflecting the fact that homes with Pay TV typically use the set top box (STB) to access both Pay only as well as FTA content. Accordingly, Pay's share of total viewing is greater than 13%. Nevertheless, it is significant that, even with the increase in content streams available to subscribers, FTA services appear so far to have maintained a strong hold over total viewer share. The growth of viewing of Pay-only content suggests that a significant share of viewers is seeking alternatives to the content available from the five existing FTA broadcasters.

These data, alone, may suggest that the advent of Pay TV in Australia has not corresponded with a substantial decrease in the homogeneity of the preferences of television consumers. Any conclusions along these lines, however, need to be treated with care, and take into account the overall competitive position of Pay TV relative to

¹⁸ That is to say, leaving aside community television and niche satellite pay services.

¹⁹ IDATE 2004, Markets, page 26.

²⁰ What Australians are Watching: Pay TV, Australian Film Commission, 2003, page 2.

²¹ OzTAM weekly Metropolitan Total TV Share of All Viewing – All Homes (A2) 5 City Share Report Week 31 2004 (25/07/04 – 31/07/04) Sun – Sat 06:00 – 23:59 (Total Individuals—including Guests) http://www.oztam.com.au/downloads/pdfs/latest/a2_20040718.pdf

²² National Subscription TV Report (B1) Viewing within SUBSCRIPTION TV Homes only Week 31 (25/07/2004 – 31/07/2004) Sun – Sat 18:00 – 23:59 (Total Individuals – Including Guests)

FTA commercial television in Australia and in particular restrictions on the acquisition of high value content by Pay TV.²³

The rise of non-commercial television

The two non-commercial networks (ABC and SBS) increased their combined viewer share from 13.7 per cent in 1990 to 18.4 per cent by 1999²⁴. SBS, in particular, increased its viewer share from 2.7% in 1993 to 4.5% in 2003. These two networks are required to cater for audiences with specific requirements, and provide programming that does not necessarily have mass appeal. This is consistent with a trend away from mass market, homogenous content preferences.

Attracting the young adult demographic

The relative performance of Channels 10 and Seven may also be relevant to an assessment of consumer preferences. Channel 10's focus is clearly on the young adult demographic (24-39), in which it claims to be the market leader²⁵.

Seven appears to have responded to a steady loss in audience and probably revenue share by reorienting its content offer toward a younger audience.²⁶ This shift in strategy is likely to have contributed to Channel Seven's decision to write down its programme inventory by \$31m, or more than half its 2003 post tax profit.²⁷

While there are other possibilities, such as a decrease in Channel Seven's content acquisition and scheduling capabilities relative to Nine, the significant shift in Seven's content strategy may suggest there is a growing difference in viewing tastes between audience segments. If this is so, this may suggest that audience tastes are becoming less homogenous.

Responding to DVD

Digital Video Disc (DVD) viewing appears to be having a significant impact on the popularity of movies broadcast via FTA and at least one broadcaster considers the impact of DVD to be significant. In 1998, the most popular movie had a rating of 32.7% whereas in 2002 the rating for the most popular movie had dropped to 13.9%²⁸.

²³ See chapter One.

²⁴ Australian Film Commission web site: article by Bob Walters.

²⁵ Channel 10 Annual Report for 2003.

²⁶ Seven's annual report for 2003 at page 11 “

²⁷ Ibid at Note 36.

²⁸ Australian Film Commission report drawn from AC Nielsen and OzTAM data at <http://www.afc.gov.au/gtp/wftvtopmovies02.html>

In a presentation to investors²⁹, Channel 10 commented that DVDs were limiting the attractiveness of Pay TV and that it had also responded to DVD by changing its schedule during one of the highest rating periods – Sunday evenings³⁰. Channel 10 no longer runs recent movies at this time slot. These changes suggest that at least some viewers are seeking content other than that available via the major television services.

Online advertising expenditure

While Online consumption is not measured in terms of the share of total viewing and thus in a way that is comparable with television, it is possible to infer the significance of Online “viewing” by the level of Online advertising. The reported value of total Online advertising expenditure in 2003 was \$235m, or 11% of metropolitan advertising expenditure for the same period³¹ and two and a half times the total level of advertising expenditure for Pay Television. This compares with 1994 when Online advertising is unlikely to have been commercially significant.

The rise of Online advertising expenditure suggests that at least some viewers are seeking content other than that available from the major television services. This is consistent with a recent study in the French market which found that individuals with internet access devoted 15% less time to television and this increased to 20% for those with broadband access.³²

Australian and international consumer preferences

Consumer preference trends in selected international markets are discussed in some length in Chapter three. Accordingly, the comments here are limited in order to avoid repetition.

As discussed elsewhere, markets that are similar to Australia in terms of buying power, typically have a larger number of FTA and Pay services available and many markets have seen a substantial increase in the range and number content streams available. According to a major industry publication, the growth in the number of content streams has resulted in an increase in viewing times in most OECD countries³³. Associated with this growth, the “generalist” services have lost viewer share while “thematic” services have retained and even increased their popularity in the face of greater competition.

²⁹ Channel 10 presentation to UBS Australian media conference, page 8, available from Ten investor website

³⁰ Sunday and Monday evenings typically obtain the highest ratings. For example the highest ranked programme according to OzTAM for the week ending 25 July was the National Nine News On Sunday.

³¹ CAESA, Op Cit

³² Ibid

³³ The World Television Market Report 2004, IDATE, page 20.

This trend has been muted in Australia, given the relatively small increase in the number of available services. However, the trends indicated above suggest that, if “thematic” content streams were more widely available, similar trends would have occurred in Australia. The rise in popularity of the ABC and SBS lends some support for this view.

The available data suggests there has also been a modest rise in Australian viewing during the 1990s³⁴. This increase may reflect the rise of Pay Television, as discussed in the previous section. However, the rise may have been lower than in comparable countries, given that Australia has not experienced a substantial increase in the number of services.

Similarly, audience and advertising market “fragmentation” are significant trends in many international markets³⁵, reflecting the substantial growth in the number of electronic media services available in homes. The review of the Australian market in the preceding section suggests that, while there has been some audience fragmentation, this has been modest, and that the four major FTA services retain a strong hold on overall consumption of electronic media in the Australian markets in which they operate. From the available evidence, the “generalist” channels represented by the four major FTA services have suffered only a modest loss of viewer share to Pay TV.

In our view, however, the relatively low level of audience fragmentation in Australia relative to many other markets does not suggest that Australian audiences are more homogenous in terms of their content preferences. Rather, the low level of fragmentation is more likely to suggest that the expression of audience preferences in Australia is being significantly constrained by the relatively limited set of options available. It would therefore seem reasonable to place the evidentiary onus on any party seeking to assert that the lower level of fragmentation in Australia is the product of a higher level of audience homogeneity

³⁴ PC Broadcasting inquiry report, 2000, at page 69.

³⁵ IDATE, *Op. cit.* page 20.

3 CHAPTER THREE: International Experience on the Effects of Multicasting, Multi-channelling and Additional Broadcast Television Stations

The purposes of this chapter are to analyze the experience of four countries (the UK, Germany, the US, and Canada) with the introduction of digital television and the use of multicasting. Section 3.1 provides a factual background to the digital TV transition in each country. Sections 3.2 and 3.3 then analyze trends in television revenues, audiences, programming and programming investment, competitive response, and effect on the transition to broadcast digital television as appropriate to the situation in the country under review. Section 3.2 focuses on the impact of multicasting in the UK and Germany, where greater reliance is being placed on multicasting, and it is relatively well defined. Section 3.3 addresses the US and Canada, where multicasting concepts are in their early stages, and the issue of television competition is discussed more broadly in the context of the licensing of additional television channels and the effects of increased competition with existing over-the-air broadcasters from other multichannel platforms. Each country discussion concludes with observations that may be useful to the Australian debate regarding the scope of multicasting restrictions and the licensing of additional television stations.

3.1 Background to Digital Transition in Each Country

As with conventional analogue TV channels, Digital Terrestrial TV (DTT) uses standard radio frequency spectrum channels to carry the modulated signal, however with DTT up to six TV programs can be transmitted simultaneously in each channel (thanks to MPEG compression and OFDM modulation technology)³⁶. This is why, in this context, each channel is known as a multiplex.

The two main forms of digital broadcasting are High Definition Television (HDTV) and Standard Definition Television (SDTV). HDTV requires greater megahertz than SDTV. Indeed HDTV generally requires a whole standard channel, and only one video program stream or signal can be sent down one channel. By comparison with SDTV from 4 to 6 video program streams or signals can be sent down one channel, or multiplex. Multicasting thus is inconsistent with reliance on HDTV.

³⁶ The US and Canada use the 8 VSB modulation technology, as incorporated in the ATSC (Advanced Television Systems Committee) DTV standard.

A key conclusion of this section is that greater reliance was placed on SDTV and multicasting, or multi-channeling in the UK and Germany, and less so in the United States and Canada. This has meant more programs per channel, and greater use of multiplexes in UK and Germany. Indeed consistent with the European decision to go for an SDTV not HDTV standard, licenses effectively precluded HDTV in the European countries. We therefore propose to examine the European countries separately from the North American in our further work. In so far as Japan and Korea are concerned we conclude that further work on these jurisdictions at this stage is not justified.

In the UK and Germany, multicasting, or OTA multichanneling, has been a key element of the DTV transition, while in the US, HDTV, a digital tuner mandate, and cable carriage of digital signals are considered the main drivers of the DTV transition. In Canada, the DTV transition is just beginning, with regulators focusing on HDTV as a driver of the transition.

The differences in HDTV penetration are significant. In Germany, the Berlin-Brandenburg region was able to achieve full analogue switch off over and 18 month period, with more free OTA channels (to about 30 from 11) as the “reward” for purchasing a digital-to analogue converter box. In the UK adoption of digital television was accelerated since the 2002 introduction of Freeview, with 3.5 million (out of 25 million) households having OTA digital service. In contrast, in the US, only about 1.3 million households have OTA digital reception capability, out of 9.5 million households with digital sets (many used for better display of DVD’s) and 108 million total TV households.

A. United Kingdom.

The UK enacted the Broadcasting Act in 1996 which authorized its broadcasting regulator to award digital multiplex licenses, with "multiplex service" meaning an offering that combines two or more program services. The transition to digital television in the United Kingdom was thus based on the awarding of digital “multiplexes”³⁷ that effectively precluded HDTV. They provided instead for standard definition programming in 16x9 format, which permitted broadcasters to offer more channels than at present, including pay channels, and promoted the transition to all-digital broadcasting. While the actual date for analog shut-off has not been set, the nominal target is 2010.³⁸ Analog shut off, and the reliance solely on digital television, would free over 112 MHz of spectrum for other uses.³⁹

³⁷ The number of multiplexes used by DTT depends on the particular country; for example, the United Kingdom has six different multiplexes (i.e., about 30 digital TV channels) but Spain, with much more unoccupied spectrum, has 11 multiplexes. The digital TV technology selected also differs. For example, in Europe two sound channels encoded with MPEG audio are used, but the United States employs 5+1 channels encoding the Dolby Digital system (see “Digital Terrestrial Television Deployment in Europe” By Josemaria Malgosa-Sanahuja and Joan Garcia-Haro in Global Communications Newsletter www.comsoc.org/pubs/gcn/gcn0301.html)

³⁸ UK Ofcom, *Driving Digital Switchover: a report to the Secretary of State*, p. 17-18 (April 2004).

³⁹ *Driving Digital Switchover*, p. 19-20.

In 1997, the UK's Independent Television Commission awarded five multi-channel digital multiplexes (the BBC automatically obtained the sixth multiplex), two to existing broadcasters and three to pay operator ONdigital, a joint venture of two established programmers, Carlton and Granada.⁴⁰ (ONdigital was later renamed ITV Digital). ONdigital, was not successful, and its multiplexes were awarded to a joint venture, Freeview, led by the BBC and transmission infrastructure operator Crown Castle,⁴¹ with BskyB taking an equal partnership share in the service company that operates Freeview.⁴²

The ITC awarded the licenses to Freeview, "because, in the ITC's view, the Freeview proposal offered a simple, clear, and attractive alternative to those viewers who had not to date been persuaded by the merits of digital television. By explicitly targeting the majority of the UK population who had not switched to digital pay-television, it is hoped that Freeview will be able to tap into a large population...."⁴³

In conjunction with FTA programming offered over the multiplexes operated by the BBC and the other traditional broadcasters, Freeview customers who obtain a digital set top box at retail (and a possible antenna upgrade) can receive up to 30 digital television channels, plus over 20 digital radio stations, including seven BBC program services⁴⁴ These initial services were services developed for other multichannel platforms (cable, satellite) that were chosen by the Freeview sponsors to begin service after the failure of ONdigital/ITV Digital.⁴⁵

According to the joint BBC/Crown Castle consortium application:

"It is our contention that, after the experiences of ITV Digital, a new pay operator would struggle to make the platform a viable and profitable success. No platform operator could afford to offer enough pay channels to create a real consumer alternative. The best alternative to the ITV Digital model is to make DTT services free-to-view, differentiating DTT from satellite and cable—and offering analogue consumers something they recognize as an exciting improvement to their familiar television experience. Simply put, it is more, better, free-to-view television."⁴⁶

⁴⁰ See, Independent Television Commission, "Terrestrial Licensing," *Annual Report for 1997* (html edition); CDG, *Development of Digital TV In Europe- United Kingdom*, p. 9 (December 2000) (prepared for European Commission DG-Information Society).

⁴¹ ITC, *Annual Report for 2002*, at 28.

⁴² See, *FREEVIEW Consumer Press Pack*, at 3. Three "Sky" Channels are available on Freeview: Sky News, Sky Sports News, and Sky Travel. The original licenses first awarded in 1997 using a modulation scheme that permitted six program streams; when the multiplexes were relicensed to Freeview, the scheme was changed to one that permits four program streams

⁴³ ITC, *Annual Report for 2002*, at 20.

⁴⁴ *FREEVIEW Consumer Press Pack*, p 2, 4.

⁴⁵ ITC, "ITC Announces Decision on Digital Terrestrial Television" (Press Release. 4 July 2002); License Application of The [BBC/Crown Castle] Consortium, p. 6-7 (13 June 2002).

⁴⁶ License Application of The [BBC/Crown Castle] Consortium, p. 3-4.

More recently, new services have been developed by the BBC for distribution over Freeview, including an interactive BBC service that allows viewers to see news headlines at any time of their choosing, and BBC3 replaced another BBC channel.⁴⁷

In April, a pay service called Top Up TV launched using unassigned channels in the multiplexes. The service offers 10 pay channels for GBP 7.99 monthly, plus a GBP 9.99 “adult” service. Owners of the former ONDigital/ITV Digital boxes may subscribe, or viewers can purchase a new converter box with a compatible conditional access mechanism.⁴⁸ As of 31 March 2004, there were about 3,500,000 Freeview households (out of 25 million UK households).⁴⁹ Top Up TV is based on a business plan breakeven of 250,000 households.⁵⁰

B. Germany

As in the United Kingdom, the transition to digital broadcasting is based on the use of digital multiplexes. Under the 1997 Digital Broadcasting Initiative, a strategy was developed, in conjunction with the federal government and state broadcast regulators, to have relatively rapid transitions from analog to digital. The transition was to be on a regional basis, under an “island strategy,” with an objective of country-wide analog turn-off by 2010.⁵¹ The Berlin-Brandenburg area was selected as the “test case” for the digital transition, and analog shut off occurred in August 2003.

The structure of the Berlin-Brandenburg market at the start of the transition in November 2002 was as follows:⁵²

- Free to air analog channels: 11
- Television households in viewing area: 1.8 million
- Over-the-air-only households: 160,000
- Additional households with OTA reception for secondary sets: 90,000.

After switchover, 7 channels of four programs streams (3, in one instance) were used by existing broadcasters, for a total of 27 program services that were available to consumers.⁵³ These were all existing free-to-air program services available over cable or

⁴⁷ UK Ofcom, *Driving Digital Switchover: a report to the Secretary of State*, p. 34.

⁴⁸ Top Up TV, “Top Up TV Launches 31 March 2004 (Press Release, 1 April 2004); Top Up TV, “Top Up TV and Thomson Announce First Top Up TV – Ready Set Top Box (Press Release, 20 May 2004).

⁴⁹ UK Ofcom, “Digital Television Update, Q1 2004,” p. 2.

⁵⁰ Top Up TV, “Top Up TV Launches 31 March 2004 (Press Release, 1 April 2004).

⁵¹ Salzburg Research Forschungsgesellschaft mbH, *Development of Digital TV in Europe: Germany*, p. 10-11 (December 2000) (prepared for European Commission DG-Information Society).

⁵² *Berlin goes digital- Experiences and perspectives*, p. 3, distributed by the Medienanstalt Berlin-Brandenburg (MABB) (2004).

⁵³ Presentation of Hans Hege, Director MABB, “Digital Switch-over in Berlin” (Washington, DC, May 12, 2004).

satellite. Two channels were reserved for future multiplexed digital services, including pay TV. Under the Berlin-Brandenburg interstate media services treaty:

The capacities to be allocated to the public-sector broadcasting corporations and the commercial television groups can be awarded under public law as complete multiplexes, provided a minimum of two multiplexes is available for other broadcasters and for new applications. ...

Several applications [for use of those two multiplexes] were put on hold for the time being as they can only be realized in the next stage of DTT development. The use of capacities by the subscription (pay-TV) service Premiere has not yet been decided. Another issue awaiting clarification is the question to what extent capacities will have to be provided for new applications and combinations of television services and other services. Several approaches to this effect incorporating mobile telephony providers have already been presented.⁵⁴

The next areas to be converted to all digital operation are Cologne-Bonn and Hanover-Bremen, both during the latter half of 2004.⁵⁵

The existence of additional programming at no cost (other than purchase of a converter box) was seen as a key to viewer acceptance of the analog transition, particularly the availability of services of the license fee-supported public broadcasters that were only available over cable and satellite:

Even though analogue services were switched off, the switchover resulted in less protest than had been anticipated. The switchover quite deliberately did not bank on parallel (simulcast) operation, which would have meant the analogue transmission was only discontinued once 90 per cent of homes were supplied with digital terrestrial TV. As the experience proves, switch-off is acceptable by an adequate number of viewers provided that adequate substitutes are available. ...

The added value of receiving more services for which the license fee is paid which previously, however, were not available terrestrially due to the scarcity of transmission capacities ... as well as the improved quality of reception ... were sufficient to bring the benefits of DTT home to consumers. Numerous comments by viewers on these services ... refute the claim that viewers traditionally receiving television through the air would be content with fewer services – the opposite is the case.⁵⁶

The availability of larger numbers of services over terrestrial television may have also created incentives to switch away from satellite and cable. Only 60 percent of those

⁵⁴ *Berlin goes digital- Experiences and perspectives*, p. 13, distributed by the Medienanstalt Berlin-Brandenburg (MABB) (2004).

⁵⁵ Presentation of Hans Hege, Director MABB, "Digital Switch-over in Berlin" (Washington, DC, May 12, 2004).

⁵⁶ *Berlin goes digital- Experiences and perspectives*, p. 15.

buying digital set-top boxes were OTA viewers; 26 percent had cable and 14 percent had satellite services.⁵⁷ (It is possible, however, that many of these boxes were for the OTA additional sets of cable and satellite viewers, not as a replacement for cable or satellite links for their primary set.)

C. United States.

All existing analog stations in the US were assigned a digital channel. All commercial broadcasters were to have their digital service operational by May 2002, non-profit/educational broadcasters, by May 2003. According to the U.S. FCC, as of 30 June 2004, 1,424 television stations are on the air with digital operations.⁵⁸ Multicasting is allowed without any further authorization and is a local station operator decision. Due to regulatory uncertainty regarding cable carriage of free-to-air signals, no firm trends regarding multicasting have developed, but multiple business models are being evaluated.

The basic policy justification for the transition to digital television in the US had two phases: the first phase (prior to 1997) was based directly on competition with Japan regarding HDTV as “the next big thing” in the consumer electronics industry (as well, it is alleged, as a justification for broadcasters to retain a significant amount of spectrum⁵⁹). Beginning in 1997, the policy was primarily focused on reduction in broadcast spectrum after analog shut off.

At first, the assumption was that HDTV would be an analog signal. In late 1996, however, the US Federal Communications Commission (FCC) adopted a digital standard for “advanced television” that could support a range of services but using spectrum more efficiently than analog television.⁶⁰ Under the provisions of the Balanced Budget Act of 1997, the FCC was directed to auction off the spectrum made “surplus” by the end of analog broadcasting, which was to occur by the end of 2006, or later, if fewer than 85 percent of the households in an area could receive the signal of a digital broadcaster, either through an over-the-air receiver or converter, or through a cable or satellite operator transmitting the OTA DTV signal in a manner viewable by the end user (e.g., via a set-top box).⁶¹

Thus, in 1997, the US entered the second phase of the DTV transition: the use of the transition as a spectrum management and budgetary issue: to free up spectrum for non-broadcast uses and to earn money for the Treasury. (With an allocation of a portion of

⁵⁷ Berlin goes digital- *Experiences and perspectives*, p. 8.

⁵⁸ “Summary of DTV Applications Filed and DTV Build Out Status, www.fcc.gov/mb/video/files/dtvsum.html.

⁵⁹ See J. Brinkley, *Defining Vision*, p. 6-12 (revised edition, 1997)

⁶⁰ FCC, *Advanced Television Systems, Fourth Report and Order*, 11 FCC Record 17771 (1996).

⁶¹ The head of the FCC’s Media Bureau has recommended that the date of analog shut off be revised to January 1, 2009, with steps taken to assure reception of DTV signals by all households by that time to assure that more than the 85 percent statutory minimum is met by that date. See Testimony of Kenneth Ferec before the Senate Committee on Commerce, Science, and Transportation, June 9, 2004.

the to-be-freed spectrum for public safety users, the transition also became an element of homeland security.⁶²⁾

The FCC's 1996 order focused on the multiple uses to which the standard adopted by the Advanced Television Systems Committee (ATSC) could be put, and viewed the DTV signal as a flexible 19 megabits per second bit stream. Most significantly for the role of HDTV, the FCC chose not to specify any video format, but incorporated the multiple HDTV and standard definition formats supported by the ATSC standard as flexible options from which broadcasters could choose:

[W]e conclude that adopting the DTV standard will increase the availability of new products and standards for consumers. The DTV Standard is flexible and extensible and permits data broadcasting as well as new services. ... While we would anticipate that licensees would, at the very least, continue to provide tomorrow what consumers have come to expect today --that is, at least one free program per 6 MHz channel -- we expect to authorize its use to transmit, for example, newspapers, stock market, or sports data

By not adopting video formats, we are allowing consumers to choose which formats are most important to them. Thus, we avoid the possibility that we could inhibit development of services which might, in fact, draw consumers more readily to embrace digital broadcasting and thus, hasten its adoption. By not specifying video formats in this respect, we foster competition among those aspects of the technology where we are least able to predict the outcome, choosing instead to rely upon the market and consumer demand.⁶³

While HDTV was expected to be an important source of consumer demand for digital television, multicasting was among the uses of DTV broadcasting that was anticipated in 1996, along with data transmission: "By way of example, the transmission of one HDTV or several SDTV video programs may still leave millions of bits per second of data capacity unused" that could be used for data transmissions.⁶⁴ Pay TV was also permitted, subject to transmission of a free-to-air program service and upon payment of a spectrum fee of five percent of "all revenue—both subscription and advertising revenue—from all ancillary or supplementary services for which viewers must pay subscription fees to receive."⁶⁵

However, use of DTV transmission capacity for multicasting proved to be subject to a further regulatory constraint: whether cable (or satellite) operators would be required to transmit multiple free-to-air program streams. Cable operators are required to carry the "primary video" signal of broadcasters,⁶⁶ but are not required to carry any "ancillary or

⁶² FCC, *Reallocation of Television Channels 60-69*, 12 FCC Record 22953, 22958 (1998).

⁶³ *Advanced Television Systems, Fourth Report and Order*, 11 FCC Record, at 17789.

⁶⁴ *Advanced Television Systems, Fourth Report and Order*, 11 FCC Record, at 17789, note 96.

⁶⁵ *Fees for Ancillary or Supplementary Use of Digital Television Spectrum*, 14 FCC Record 3259, 3271 (1998).

⁶⁶ Communications Act section 614(b)(3).

supplementary service” transmitted on a DTV signal.⁶⁷ While the latter provision clearly denies broadcasters mandatory transmission rights for a pay signal, the issue regarding free-to-air multicasts remains unresolved, at present. In 2001, the FCC offered its preliminary view that “ ‘primary video’ means a single programming stream.”⁶⁸ Broadcasters argue, however, that in appropriate context, “primary video” means all free-to-air program streams. The FCC has not yet made a final ruling, on this issue, nor on the video carriage obligations of satellite operators, which, no doubt, are likely to be appealed by either broadcasters or cable/satellite operators regardless of outcome.

Cable operators and broadcasters may reach voluntary agreements to carry a multicast signal. In sum, HDTV and primary SDTV signals must be carried at analog shut off, and multiple free-to-air signals rights are uncertain at shut off. In the meantime, parties can voluntarily agree to carriage of any and all content.

In the near term, cable and/or satellite carriage of OTA digital programming remains important because most “digital capable” TV sets sold in the US to date do *not* have digital tuners, but require a set-top box containing a receiver, such as those distributed by satellite operators, who provide a range of HD programming, or more recently, by cable operators. (An initial driver for digital set purchases was display of DVD video in 16:9 wide screen format, 480 line progressive screen display, one of the US DTV optional display formats.⁶⁹) According to the US Consumer Electronics Association (CEA), out of a total of 108 million TV households,⁷⁰ 9.5 million TV households have at least one digital television set or monitor.⁷¹ While 87 percent of digital sets are HDTV capable,⁷² only about 1.3 million have OTA DTV broadcast reception capability.⁷³ (Other sets may receive broadcast HDTV via set-top boxes supplied by cable operators retransmitting local HDTV programming.) This situation should change with the effectiveness of FCC rules that require all TV sets sold in the US after July 1, 2007 to have OTA DTV receivers. The requirement is phased-in starting with the requirement that 50 percent of sets with screen sizes 36 inches or larger sold after July 1, 2004 have DTV receivers.⁷⁴

Given the uncertainty of the must-carry rules, it is not surprising that there is no uniformity of approach to DTV services. At present, networks offer much of their prime time programming in HDTV (Fox begins later in 2004), as well as major sports games, and their affiliates generally pass these HDTV signals to their viewers. Many cable operators carry the HDTV programs of network affiliates, as well as HDTV

⁶⁷ Communications Act section 336(b).

⁶⁸ *Carriage of Digital Television Broadcast Signals*, 16 FCC Record 2598, 2622 (2001).

⁶⁹ See Statement for the Record of Richard Lewis, Zenith Electronics Corp., before the U.S. Senate Committee on Commerce, Science, and Transportation, at 2 (March 1, 2001).

⁷⁰ See www.neilsenmediaresearch.com/DMA.html

⁷¹ Consumer Electronics Ass’n, Comments, MB Docket 04-227, at 4 (July 23, 2004).

⁷² CEA, “2003 A Banner Year for DTV; Unit Sales Top Four Million” (Press Release, January 12, 2004).

⁷³ Consumer Electronics Ass’n, Comments, MB Docket 04-227, at 4.

⁷⁴ FCC Rule 15.117(i).

programming of cable-only networks. The cable industry claims that cable operators are carrying the digital programming of 382 broadcasters.⁷⁵

Numerous broadcasters offer free-to-air multicasting. Sometimes the offering may be as simple as continuous weather radar. In other cases, broadcasters may show multiple live sporting events when their schedules conflict, or broadcast public safety information (as when a hurricane is approaching) while continuing regular programming on the main channel. Some stations are carrying another network station's programming as a subchannel in areas in which the second network's programming is unavailable digitally.⁷⁶ Public television stations are key multicast providers. For example, the public television station serving Washington, DC provides a multicast of specially produced HDTV programming and an SDTV simulcast during the evening, and during the day offers four SDTV programs: a simulcast of the analog channel, two channels of repeats of "classic programming," and a children's channel, with the major cable operator in the Washington area voluntarily carrying all four multicast video streams.⁷⁷

In conjunction with the FCC debate on cable carriage of multicast digital programming, the ABC and NBC networks set out multicast approaches they are offering or would offer should multicast must carry be required. For example, in November 2003, the ABC Owned Stations unit of the Walt Disney Co. advised the chairman of the FCC:

ABC owned station KFSN-TV Fresno, California, has been multicasting enhanced local TV service for more than a year. Specifically, KFSN's DTV service includes three primary video streams— (1) one video stream that replicates KFSN's analog signal including prime time and sports HDTV, (2) a second full time video stream consisting repurposed local news and public affairs programming including political debates, and (3) a third video stream with local weather information. On election night in California a few weeks ago, KFSN's second video stream was used to provide viewers with continuous, real time election results.

We are pleased to advise you that the multicasting effort ABC has pioneered in Fresno will be extended in the near future to the other nine markets in which ABC owns stations. While generally following the Fresno model, each of our stations will customize their DTV multicast offerings to fit the unique characteristics of their market. ...

As a large media company, ABC has enjoyed success in negotiating marketplace agreements for cable carriage of ABC HDTV and multicast services. However,

⁷⁵ National Cable & Telecommunications Ass'n, *2004 Mid-Year Industry Review*, p. 5.

⁷⁶ See Mark Shubin's Monday Memo, July 19, 2004, at www.digitaltelevision.com/mondaymemo/mlist

⁷⁷ See www.weta.org/tv/dtv

we remain concerned that many of our affiliates may not be as successful in negotiating such arrangements.⁷⁸

Similarly, the NBC Affiliates Association advised the FCC of their interest in supporting a multiplex plan, should multicast must-carry be adopted, in which one DTV channel would be a national NBC weather and “alerts” channel and a second DTV channel would be a 24 hour local news and sports channel.⁷⁹ Some broadcasters have also stated that they would use multicast capabilities to expand non-English programming.⁸⁰

In the absence, perhaps, of a definitive ruling on multicast must-carry, some broadcasters (not the stations directly owned by the major networks) have begun to offer an OTA pay service in direct competition with cable operators, combining the multicast capabilities of several broadcasters in a market to offer a set-top box that decodes FTA programming plus a selection of popular cable networks—a “less for less” strategy. For example, USDTV began operations in 2004 and offers 11 cable networks for US \$19.95 per month in Salt Lake City, Utah, Las Vegas, Nevada, and Albuquerque, New Mexico, with the set-top boxes distributed through Wal-Marts in those communities.⁸¹ Another group, called the “Broadcasters Initiative,” is seeking to provide a similar offering, with up to 30 cable networks, in additional cities.⁸²

D. Canada

The Canadian DTV transition is focused on HDTV, not additional channels. The policy of the CRTC is to require an additional license for multicasting operations, and no such authorization has yet been reviewed by the CRTC. Indeed, because of a relatively late start in the DTV licensing process (compared to the US), only eight DTV stations were licensed as of 31 March 2004.⁸³

In June 2002, the CRTC adopted a market based approach to the DTV transition. The CRTC concluded that:

“On balance, the Commission believes that reliance on an implementation plan with a specified deadline for the rollout of DTV would lead to more problems than it would resolve....DTV is a technology whose success is dependent on consumer acceptance, and the pace at which the acceptance will grow is difficult to predict. Accordingly, the Commission’s determination is that: A voluntary market-driven

⁷⁸ Letter from Walter Liss, President, ABC Owned Television Stations, to Michael Powell, Chairman FCC, CS Docket 98-120 (November 20, 2003).

⁷⁹ Submission of NBC Affiliates Association, CS-Docket 98-120 (November 21, 2003, filed January 12, 2004).

⁸⁰ See Letter from David Honig, Executive Director, Minority Media and Telecommunications Council, CS Docket 98-120 (January 17, 2004)

⁸¹ See www.usdtv.com.

⁸² Emmis Communications, “Television Broadcasters Initiative Unveiled” (Press Release, April 20, 2004).

⁸³ CRTC, “Radio, television, cable and satellite: Number of licenses by province, 31 March 2004)

transition model without mandated deadlines, is the most appropriate approach in Canada”⁸⁴

The CRTC’s June 2002 decision also including several guidelines for licensing digital television:

- “Digital technology will be treated as a replacement for analog technology.”
- “A new transitional digital television license will be issued for each digital television undertaking. Licensees who wish to use digital television facilities to provide programming consisting essentially of a simulcast of their existing analog services will qualify for licensing....”
- “Where the licensee of an analog television undertaking is also the licensee of a transitional digital television undertaking, it will be authorized to broadcast a maximum of 14 hours per week of programming on the digital service that is not duplicated on the analog service. Broadcasters will be free to provide lesser amounts of unduplicated digital programming, and may choose to offer none. A minimum of 50% of the unduplicated programming must be Canadian.”
- “All programming produced in the 16:9 aspect ratio must be broadcast in that ratio on transitional DTV undertakings. Further, the Commission encourages broadcasters to produce 16:9 format programming or to acquire such programming whenever possible. However, programming originally produced in the 4:3 aspect ratio will not have to be reformatted.”
- “All of the programming on the digital service that is not duplicated on the analog service must be in the HDTV format.”
- All Canadian programs aired during the evening broadcast period by the licensee of a transitional DTV undertaking, whether duplicated or not, are to be broadcast in the HDTV version, where such version exists.”⁸⁵

The CRTC has adhered to these policies, making allowances for the actual availability of HDTV programming and rights to that programming.⁸⁶

With respect to multicasting, the CRTC noted that multicasting might discourage the introduction of HDTV and could adversely affect the economics of Canadian pay TV and specialty services. Nevertheless, the CRTC concluded that multicasting “can contribute

⁸⁴ CRTC “A Licensing Policy to Oversee the Transition from Analogue to Digital, over-the-air Television Broadcasting” Broadcasting Public Notice CRTC 2002-31, at paragraph 13 (12 June 2002)

⁸⁵ CRTC, “A licensing policy to oversee the transition from analog to digital, over-the-air television broadcasting,” Broadcasting Public Notice CRTC 2002-31, at paragraphs 7, 15, 25, 26, 29 (12 June 2002).

⁸⁶ CRTC, “CIII-TV-41 Toronto – transitional digital television license,” Broadcast Decision CRTC 2004-202, Appendix (9 June 2004).

in a positive manner to the Canadian broadcast system.”⁸⁷ However, “In order to ensure that the introduction of multicast programming services does not negatively affect the current structure of the broadcast industry, applications to provide multicast services will be considered on a case-by-case basis, and will be licensed separately from the main DTV service.”⁸⁸ Thus, the CRTC’s transition policy “will allow for the licensing of multicast programming services,” but only on the following conditions:⁸⁹

- “Multicast services should make a positive contribution to the Canadian broadcasting system during the transition period.”
- “A multicast service will generally be subject to the same Canadian content, logging and other regulatory requirements that apply to existing television services.”
- “The Commission’s predisposition will be to license new and innovative multicast services, in preference to those that duplicate existing over-the-air services, pay or specialty services.”
- “The delivery of a multicast service may not take precedence of the broadcast of the HDTV version of a program whenever such version is available.”

As noted, the CRTC has not yet addressed a specific multicast license application.

⁸⁷ CRTC, “A licensing policy to oversee the transition from analog to digital, over-the-air television broadcasting,” Broadcasting Public Notice CRTC 2002-31, at paragraph 37.

⁸⁸ CRTC, “A licensing policy to oversee the transition from analog to digital, over-the-air television broadcasting,” Broadcasting Public Notice CRTC 2002-31, at paragraph 38.

⁸⁹ CRTC, “A licensing policy to oversee the transition from analog to digital, over-the-air television broadcasting,” Broadcasting Public Notice CRTC 2002-31, at paragraph 39.

E Japan

Significant features of the Japanese television market include the following⁹⁰.

- Japanese commercial television is the second largest market in the world, by advertising expenditure, after the US. Television has a high share of total advertising expenditure with 46% of total advertising expenditure, excluding directories⁹¹. Moreover, advertising expenditure relative to gross domestic product is also relatively high⁹².
- Because of its mountainous topography, and high population density in metropolitan areas, terrestrial broadcasting represents a small portion of the television distribution sector and this has been decreasing in recent times to the point where less than 20% of homes rely only on terrestrial transmission.
- Related to this, more than 60% of households already have access to multi-channel services via cable and satellite⁹³. 78% of households using cable do not pay subscription fees, which relate to additional content, not cable access, and accordingly receive non-subscription channels via cable.
- Satellite and cable services are switching from analogue to digital. However, the main cable operator only has 20,000 viewers on its digital offering.
- Some telephone companies have entered the television market via the ambitious deployment of ADSL services.
- There are seven major FTA channels, two public channels funded by license fees and five private channels funded by advertising revenues.
- The private channels have been adversely affected by cyclical crises in the advertising market. Advertising revenues decreased by 6.4% between 2001 and 2002, falling to a level comparable to that in 1998.

In 2001, the Japanese government reallocated television frequencies to provide for DTT. DTT is still in its infancy, with the first services being launched in Tokyo, Osaka and Nagoya at the end of 2003. DTT is expected to be rolled out across the country by the end of 2006. The leading DTT services are derived from the existing analogue terrestrial services. DTT services currently do not include high definition and it also appears they do not offer an increased number of content streams. Accordingly, DTT multicasting in Japan will not be addressed in the following section.

⁹⁰ These comments are drawn from IDATE 2004, markets.

⁹¹ CAESA 2003, page 23.

⁹² Ibid.

⁹³ IDATE report 2004, Markets, page 49.

F Republic of Korea (ROK)

Significant features of the ROK television market include:

- The highest broadband internet penetration rate in the world, with more than 50% of households. This makes multi-channeling via broadband a potentially attractive option;
- strong presence of cable networks with a 50% penetration rate among TV households; and
- DTT is still in its infancy, and recent data indicate less than 5% of homes have digital television receivers⁹⁴.

The government supports the development of digital television. Digital terrestrial television was launched in October 2001, and the five main terrestrial networks have launched high definition digital services with coverage of 50% of the population. National coverage is scheduled for 2005. The shutdown for analogue services is scheduled for 2010. Under license conditions established by the Ministry of Information and Communications, terrestrial digital broadcasters are obliged to provide at least 13 hours per week in a high definition format⁹⁵.

Given that more than half the population already has access to multi-channeling via cable and satellite, it appears commercial driver for and focus of DTT is on a high definition format and it is unclear from the information available at the time of writing whether multicasting is being offered. Accordingly, DTT multicasting in the ROK will not be addressed in the following section.

3.2 Impact of Multicasting in the UK and Germany

Multicasting has facilitated the transition to digital television in the UK and Germany, and in the UK has had a positive effect on competition with other multichannel platforms.

A. United Kingdom

1. Speed of transition to digital television as a result of free-to-air multicasting.

⁹⁴ IDATE report 2004, Markets, page 55.

⁹⁵ IDATE 2004 Markets report, page 56.

The Freeview platform has been a strong stimulus to the adoption of over the air digital television. According to the UK's broadcasting regulator, Ofcom:

The growth of digital TV in 2003 was strong, particularly in the fourth quarter. ... Most striking was the remarkable growth of Freeview, which exceeded almost all sales predictions. By the end of 2003, there were almost three million Freeview households, up from 1.2 million a year earlier.⁹⁶

As of 31 March 2004, there were about 3.4 million Freeview households.⁹⁷

2. Audience Response to Multichannel and Multicast Platforms

Ofcom, is currently undertaking a comprehensive examination of over-the-air broadcasters (referred to as public service broadcasters) in light of the current market structure of the television industry. As part of that effort, Ofcom has prepared analyses that reflect the impact of digital terrestrial television multicasting and other multichannel platforms on traditional broadcasting in terms of viewership trends by platform, as well as trends in revenue and programming. Turning first to viewership, Ofcom included the following among its findings:

- **“Greater choice of channels is the primary reason for migrating to multichannel television.”**
- **“Multichannel viewers watch significantly more television than their terrestrial analog counterparts.** Across the age spectrum, multichannel viewers consume more television: up to one-third more in the case of 16-34 year olds.... Indeed, the greater viewing that is apparent across the entire age spectrum in multichannel homes more than compensates for the skew toward heavy-viewing older age groups in the analogue population....”
- **“Viewing in the multichannel environment tends to be more ephemeral and volatile than in the terrestrial analogue environment.** Multichannel viewers flick between channels more frequently than terrestrial analogue viewers and spend less time watching each channel before flicking again....”
- **“Viewing is spread more thinly across a wider range of channels in multichannel homes. The terrestrial channels continue to account for the bulk of viewing amongst older audiences, but are far less important for younger viewers.”**
- **“Viewing is not only becoming more dispersed, it is becoming more polarized. Audience groups are diverging in what they watch.** To an extent, there is even audience fragmentation on the terrestrial channels. It is, for instance,

⁹⁶ UK Ofcom, *Driving Digital Switchover: a report to the Secretary of State*, p. 34.

⁹⁷ UK Ofcom, *Digital Television Update—Q1 2004*, p. 2 ((2004).

becoming increasingly difficult to reach mass audiences. Even in the late 1990s, the most popular programmes on terrestrial television could expect to attract audiences of 16-17 million; today 14 million is a common ceiling.... This is not the result of apathy across the viewing population. ... Instead, the cause of aggregate audience declines is simply the fact that few programmes are now able to attract widespread interest *across* the age spectrum.”⁹⁸

The key finding for purposes of this report is that the impact of DTT multicasting on viewership of the main terrestrial stations is quite different than that for cable and satellite. That is, while offering FTA viewers additional choices, it is likely to have a lesser impact (at least as measured so far) than the penetration of the other multichannel platforms.

More specifically:

There are growing differences between terrestrial analogue and multichannel viewing. But, even within the multichannel population, there are platform differences. In particular, Freeview is emerging as a distinct viewing environment.

Channel fragmentation is least accentuated in Freeview households. The five terrestrial channels account for 84% of viewing on the digital terrestrial platform, compared with 54% and 51% on cable and satellite respectively.... While just four channels account for 75% of total viewing on Freeview, 22 channels are needed to do so on cable and 26 on satellite...

Freeview adopters tend to be older: one-third are aged 55 or older, compared with one-fifth of digital cable and digital satellite adopters. Freeview is also the only delivery platform on which ABC1 [higher socio-economic profile] individuals constitute the majority of the audience – 53%, compared with 48% on satellite and 46% on digital cable....

The distinctive age- and socio-economic profile of Freeview adopters undoubtedly affects channel performances relative to delivery platforms. But when this distinctive profile is controlled for, differences remain. Freeview represents a unique environment for channels and viewers alike, even after adopter differences are accounted for.⁹⁹

3. The industry impact of multichannel and multicast competition

Revenues. Before turning to revenues, it should be noted that the recent economic downturn resulted in a similar downturn in worldwide broadcast advertising revenues,

⁹⁸ Ofcom, *Ofcom review of public service television broadcasting, Supporting Documents*, Vol. 1, part 4, at 4-9 (2004) (emphasis in original).

⁹⁹ Ofcom, *Ofcom review of public service television broadcasting, Supporting Documents*, Vol. 1, part 4, at 10-11, (emphasis in original).

from a peak in 2000, to a bottom in 2002, and then a recovery.¹⁰⁰ The same was true in the UK, masking the effects, if any, of audience fragmentation. “Over the five year period from 1998 to 2002 (inclusive), the television industry suffered fluctuating fortunes as revenues rose and then fell.... Within the total, advertising revenues were hit by the general slowdown in the economy in 2001 and 2002, falling by 12%.... Meanwhile, subscription revenue revenues continued to increase.... The BBC’s license revenue also saw constant growth – up 20% in real terms over the period.”¹⁰¹

Audience share: From 1990 to 2003, audience shares shifted away from the traditional FTA television channels, reflecting the 1991 beginning of competition from additional program services distributed over multichannel platforms and from the 1997 commencement of newly licensed channel 5. However, as set out in the following Table 3.1, the traditional channels still retained about a 70 percent viewership share.

Table 3.1

Annual Percentage Shares of Individual Viewing, 1990-2003

Year	Channel					
	BBC1	BBC2	ITV/CH3	CH4	CH5	OTHERS (Cable/Sat/Etc.)
1990	37	10	44	9	-	-
1991	34	10	42	10	-	4
1992	34	10	41	10	-	5
1993	33	10	40	11	-	6
1994	32	11	39	11	-	7
1995	32	11	37	11	-	9
1996	33.5	11.5	35.1	10.7	-	10.1
1997	30.8	11.6	32.9	10.6	2.3	11.8
1998	29.5	11.3	31.7	10.3	4.3	12.9
1999	28.4	10.8	31.2	10.3	5.4	14.0
2000	27.2	10.8	29.3	10.5	5.7	16.6
2001	26.9	11.1	26.7	10.0	5.8	19.6
2002	26.2	11.4	24.1	10.0	6.3	22.1
2003	25.6	11.0	23.7	9.6	6.5	23.6

Source: Broadcasters’ Audience Research Board, Ltd.

Investment in programming. The terrestrial broadcasters increased programme expenditure relative to revenue by 19% from 1998 to 2002.¹⁰² Reflecting a slight

¹⁰⁰ See, e.g., IDATE, “The World Television Market” (Press Release, 25 February 2004, at www.idate.fr) (“The advertising crisis of 2001-2002 is about to be overcome. It nevertheless seriously impacted market growth....”)

¹⁰¹ Ofcom, *Ofcom review of public service television broadcasting, Supporting Documents*, Vol. 2, part 2, at 14 (2004).

¹⁰² Ofcom, *Ofcom review of public service television broadcasting, Supporting Documents*, Vol. 2, part 2, at 15.

increase in program hours, per-hour programming expenditure increase by 14%.¹⁰³ This was funded largely by operating efficiencies. But the result was not necessarily better programming overall. “Other things being equal, it might be expected that this should lead to an increase in quality, either with higher production budgets within each genre or a richer mix of genres across the schedules. However, there are factors which mitigate against this. The costs of sports rights, and football in particular, have risen dramatically, as the BBC, the main terrestrial channels, and Sky bid against each other. In addition, ‘talent inflation’ (the increasing costs of the services of actors, presenters, comedians, writers, etc.) forces prices up. If Sport and Film are excluded from programming spend, the total spend on programming rose only 8% over the period....”¹⁰⁴

Programming mix. The key lesson is that, “Scheduling techniques ... developed in a terrestrial context to promote viewing to ‘serious’ programming, are less effective in the multichannel environment. The power to control viewing is shifting from the broadcaster to the viewer.”¹⁰⁵ Reflecting, presumably, their desire to retain viewers who have choices, as well as revenue opportunities, the programming mix of the five terrestrial broadcasters has evolved over the period 1998-2002. For example, Sport was up 14% in hours, and Light Entertainment and Pop Music was up 17%. Conversely, Arts and Classical Music was down 11%, along with Education, down 15%, and General Factual, down 1%. Films were down 6%, perhaps reflecting the higher cost of rights.

Competitive response to Freeview. According to Ofcom, “Before the launch of Freeview, the demand for greater choice without a monthly subscription had not been catered to by other multichannel services. Research conducted by the BBC had indicated that almost two-thirds of Freeview customers said the one-off payment and lick of a contract was extremely important to them.”¹⁰⁶ Not surprisingly, then, “Freeview accounts for one in four digital households and this proportion can be expected to increase as it is growing faster than other digital platforms....”¹⁰⁷

According to press reports, BSkyB is developing an equivalent offering. “James Murdoch, son of Rupert and the head of British Sky Broadcasting, PLC, has come up with a model for than 100 channels without subscription fees....”¹⁰⁸ The service, nicknamed “Freesat” and set to begin later in 2004, will offer 116 television channels and 81 radio stations without a subscription. The only cost is a one-time charge of GBP 150 for the satellite antenna and set-top box. The expectation is that many Freesat users will upgrade to paid packages to obtain premium sports and recent movies, for charges of up to GBP 40 per month. Additionally, BSkyB could obtain greater advertising revenue from its own channels that would have the benefit of the Freesat viewership base.

¹⁰³ Ofcom, *Ofcom review of public service television broadcasting Supporting Documents*, Vol. 2, part 2, at 17.

¹⁰⁴ Ofcom, *Ofcom review of public service television broadcasting, Supporting Documents*, Vol. 2, part 2, at 17-18.

¹⁰⁵ Ofcom, *Ofcom review of public service television broadcasting, Supporting Documents*, Vol. 1, part 4, at 14 (emphasis omitted).

¹⁰⁶ Ofcom, *Driving digital switchover: a report to the Secretary of State*, paragraph 3.12 (April 2004).

¹⁰⁷ Ofcom, *Driving digital switchover: a report to the Secretary of State*, paragraph 3.13.

¹⁰⁸ Wall Street Journal Online, “Britain’s BSkyB Offers a Flat Fee for Satellite TV” (June 28, 2004).

Significantly, observers viewed Freesat as a response to Freeview:

BSkyB needed to do something bold to counter the threat of Freeview, a lesser-known brand that two years ago began to offer a similar sort of one-payment plan. ... The service is already in some four million homes, far more than expected. ... Because BSkyB is so much bigger and its channel offering far more extensive than Freeview's, BSkyB's Freesat service is expected to be far higher profile and go much further in changing consumer perception of how to pay for TV.¹⁰⁹

4. Conclusion

Thus, the UK experience is that:

- Multichannel competition resulted in audience fragmentation, as fewer viewers (particularly younger viewers) tuned into the traditional broadcast television channels. Nevertheless, programming on those channels proved to have the highest relative viewership share.
- A free-to-air multicast platform appears attractive to viewers, particularly older viewers, who would not be interested in digital television without the benefit of additional channels, but are unwilling to pay a monthly subscription fee.
- A free-to-air multicast platform with a subset of channels available on other multichannel platforms may attract viewers to digital television without creating the same degree of migration away from traditional channels as do the other multichannel platforms.
- Multichannel competition places downward pressure on broadcaster advertising revenue, but need not affect overall programming expenditures (due, in part to increased BBC expenditures).
- A free-to-air multicast platform places other multichannel platforms under pricing pressure, and has resulted in reduced priced multichannel offerings.

B. Germany

The broadcast environment in Germany with about 30 “free-to-air” channels available over satellite and cable platforms had already defined the German television market prior to the introduction of digital multicasting. The less-than-10 percent household penetration of OTA-only viewers limited the impact of a FTA digital multicast on overall industry dynamics. However, the benefit of receiving additional channels provided

¹⁰⁹ Wall Street Journal Online, “Britain’s BSkyB Offers a Flat Fee for Satellite TV” (June 28, 2004).

sufficient consumer benefits that analog shut-down successfully could occur in the Berlin-Brandenburg region.

3.3 The Experience in the United States and Canada

Given the US and Canada have had multiple competing cable and satellite platforms, each offering multiple channels, their experience can provide useful insights into the nature and effects of “multi-channel” competition. Moreover the US and Canada can provide some evidence on the effects of granting additional TV licenses.

In the US and Canada, there is intensive competition between OTA programming and programming delivered over multi-channel platforms. One result has been an increasing shift in advertising revenues and programming expenditures from OTA networks to networks delivered over cable and satellite platforms. The ubiquitous nature of cable and satellite networks in the US has further tended to “crowd out” or constrain the growth of Multicasting OTA. In locations however where cable and satellite services are less ubiquitous such as Salt Lake City one has seen innovative developments including subscription multicasting.

Finally there are significant differences between Canada and the US in the nature of regulation. The US has a permissive framework in which stations are allowed to use their digital spectrum allocations as they wish, to offer single or multiple channels. In Canada, the emphasis however has been placed on HDTV at the expense of SDTV. Given HDTV is spectrum intensive this has “crowded out” multicasting.

A. United States

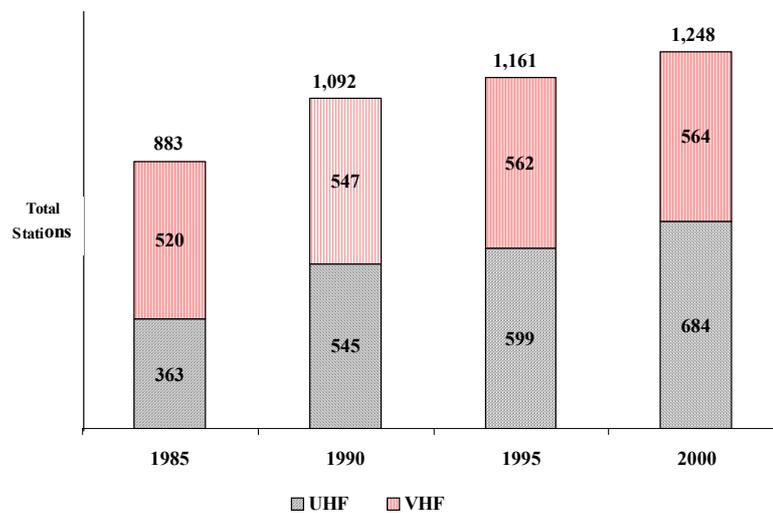
Economic considerations (i.e., impact on other broadcasters) are not considered in the initial licensing of television stations. Rather, stations are allocated to markets based on engineering considerations (primarily interference with other stations), and incorporated in a “Table of Allotments” promulgated by the FCC. Broadcasters may then apply for a permit to construct the station and a license to operate it based on financial qualifications and agreement to abide by the rules governing operation of a television station.¹¹⁰ Historically, “comparative” hearings among applicants were held only if there were more than one applicant. However, since 1997, the FCC has been required to auction broadcast spectrum if there are competing applications for new station authorizations.¹¹¹

¹¹⁰ See National Association of Broadcasters, *Legal Guide to Broadcast Law and Regulation*, Parts I (A), (C).

¹¹¹ FCC, *Competitive Bidding for Commercial Broadcast and Instructional Television Fixed Service Licenses*, 14 FCC Record 8724, 8725-26 (1999).

Thus, entry is based on prospective station owners' assessments of the commercial viability of new station's operation.¹¹² Since revenue is primarily from advertising, the greater the population reached by a station, the greater the potential advertising revenue. Thus, five of the top six markets have 20 or more stations (including non-commercial stations), while only three of the remaining 204 do, and these instances may reflect geographical peculiarities.¹¹³ One result of this open licensing policy is that the number of television stations (commercial and non-commercial) has increased from 1,518 in November 1993 to 1,726 in June 2003.¹¹⁴ Chart 3.1 sets out in more detail the growth in the number of commercial stations between 1985 and 2000.

Chart 3.1 Number of Commercial Broadcast Television Stations 1985-2000



Source: Television Advertising Bureau

The increasing number of stations facilitated the formation of three new networks, UPN (now owned by the parent company of CBS) and WB in 1995, and PAXTV in 1997.¹¹⁵

In recent years, broadcast stations, also have faced increased competition from networks delivered by cable and direct broadcast operators, with 18 percent of households in May 2004 subscribing to satellite and 67 percent subscribing to cable.¹¹⁶ Cable operators have upgraded their networks to carry an increased number of channels. The result has been

¹¹² After entry, economic viability is determined by local market economics and the quality of station management.

¹¹³ Warren Communications, *Television & Cable Factbook 2003*, p. C-32-35.

¹¹⁴ FCC, *Status of Competition in the Market for the Delivery of Video Programming, Tenth Annual Report*, 19 FCC Record 1606, 1668 (2004).

¹¹⁵ FCC, *Status of Competition in the Market for the Delivery of Video Programming, Tenth Annual Report*, 19 FCC Record 1606, 1668.

¹¹⁶ Television Bureau of Advertising, "Cable Penetration Hits Nine-Year Low as Satellite Continues to Surge (Press Release, June 9, 2004) (household penetration may include households with both cable and satellite).

that, as set out in Table 3.2, the average number of channels available to viewers increased significantly (although leveling off recently):

Table 3.2 Average Number of TV Channels Receivable, 1985-2003

1985	18.8
1990	33.2
1995	41.1
2000	74.6
2001	89.2
2002	102.1
2003	100.4

Source: Nielsen Media Research, reported in *Media News Daily*, July 1, 2004

The number of channels actually watched by the average household is significantly less (though presumably different for different households), rising from five in 1985 to 15 in 2003.¹¹⁷ The following Table 3.3 sets out the trends in viewership among broadcast, pay cable, and cable networks, from 1985-2003.

Table 3.3: Comparative Broadcast, Pay Cable, and Cable Network Primetime Audience Shares 1985-2003

November Rating Period	ABC, CBS, NBC Affiliates Shares	Fox Affiliates Shares	Other Affiliates Independent Shares	Net & PBS Shares	Pay Cable Shares ¹¹⁸	Cable Network Shares ¹¹⁹
Nov-85	77.0	0.0	16.0	4.0	6.0	6.0
Nov-90(1)	64.0	0.0	22.0	4.0	5.0	16.0
Nov-95	54.2	10.8	12.0	4.0	5.0	29.0
Nov-00	43.0	10.0	13.0	4.0	5.0	41.0
Nov-02	39.0	7.0	13.0	3.0	6.0	45.0
Nov-03	38.0	7.0	13.0	3.0	5.0	49.0

a. 1990 Fox ratings included in “independent” totals.

Source: Nielsen Media Research, Bear Stearns - Note: Weighting factors would be required to add the column entries for a given row to equal 100 percent.

However, the erosion in broadcast audience shares does not automatically translate into a decline in network advertising. Network television, with its focus on mass-market audiences, still provides the most popular programs—and broadcast advertisers focus on program audiences. For example, during the 2003-2004 broadcast season, the top rated

¹¹⁷ MediaPost’s *MediaDaily News*, “Universe Collapses: Well, TV’s Anyway” (July 1, 2004).

¹¹⁸ “pay Cable Shares” refers to premium program services that require viewers to pay a separate, monthly charge, and to video-on demand services

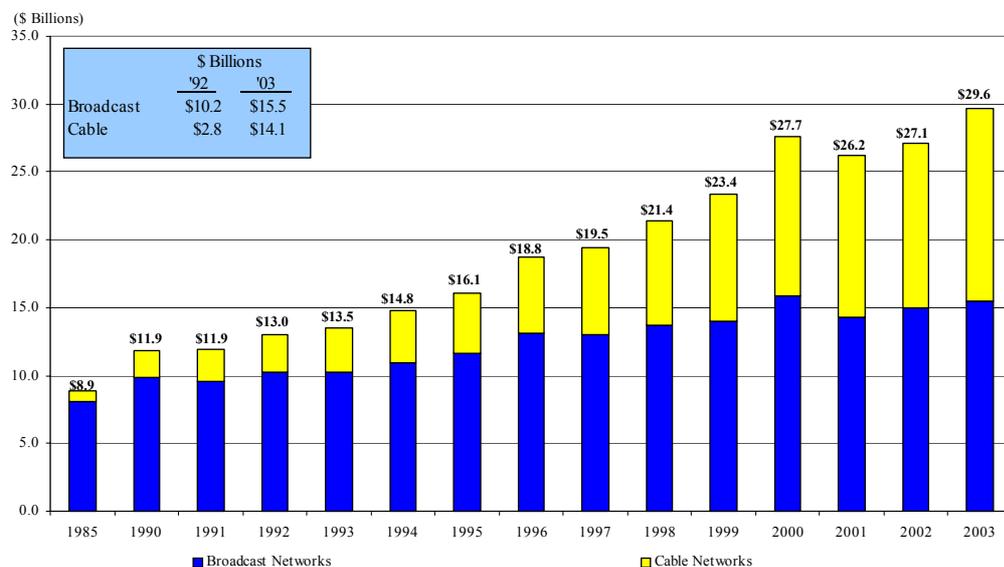
¹¹⁹ “Cable Network Shares” refers to cable networks included as part of the monthly subscription paid by most cable (and satellite) subscribers, with no additional per-channel charge

cable program, “NFL Regular Season” on ESPN was no. 298, that is, the highest ranked 297 programs were all broadcast programs, and the tenth-highest rated cable program was no. 621.¹²⁰

As a result of audience shifts, therefore, advertisers appear willing to pay a premium for such audiences, with the result that the revenue *per viewer* paid for a broadcast network has increased, even as the number of viewers of such program has fallen. According to one analysis of recent trends, the net effect may be to keep per-program revenue relatively flat. In the recent “upfront” advertising commitment period for the 2004-05 season, networks have reported that the cost-per-thousand-viewer (CPM) prices were up six to seven percent from last year, but this rise was generally matched by a seven percent decline in average prime time ratings, thus flat revenue per ad.¹²¹

Local broadcasters’ advertising revenue is further threatened by the fact that cable operators are becoming increasingly aggressive in selling local advertising in direct competition with broadcast television stations. Charts 3.2 and 3.3 set out national and local advertising revenue shares from 1985-2003. (Note the impact of the 2001-02 global advertising recession). The bottom line is that cable advertiser revenue was estimated to be over 30 percent of total television advertising revenue in 2003.¹²²

Chart 3.2 Broadcast and Cable Network Television Advertising Expenditures (1985-2003)



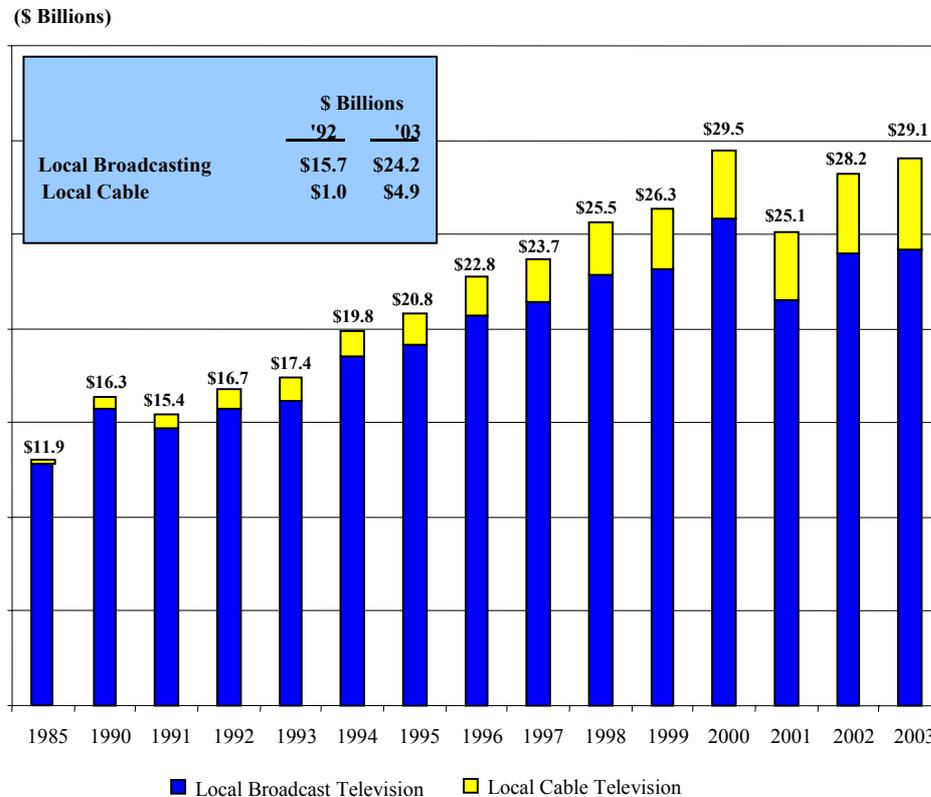
Source: TVB and Bear Stearns

¹²⁰ Television Bureau of Advertising, “Broadcast Took Top 297 Programs During 2003-04 TV Seasons (Press Release, June 4, 2004).

¹²¹ Mogan Stanley analyses, as reported in “Broadcast Ad World is Flat,” *Broadcasting & Cable*, posted online at www.broadcastingandcable.com, July 12, 2004.

¹²² Note: Revenues for “cable networks” includes revenue from distribution of those networks over direct broadcast satellite.

Chart 3.3
Local Cable and Broadcast Television Advertising Expenditures (1985-2003)



Source: TVB and Bear Stearns

The impact of advertising competition on broadcast stations. Competition for advertising has negatively affected the finances of some stations. Station operations generally cost the same regardless of the number of persons watching (stations with more revenue can hire more higher-priced talent, though). Conversely, station advertising revenue is directly proportional to viewership. Consequently, lower rank stations (in terms of viewers) in smaller markets have come under the most financial pressure.

A study of the U.S. broadcasting industry concluded that by 2007, the local cable operator plus the top two stations in a market would likely account for 65-70 percent of the local TV advertising spend, leaving the remaining broadcast stations to contend for the residual 30-36 percent.¹²³ The study concluded that the quantity and quality of local news, weather, and public interest programming would be reduced if a station’s revenue base does not grow, or if it grows less than costs increase. This could result in a “vicious circle” within a market area as weaker stations cut programming and other costs to maintain margins which results in a ratings decline, a resulting further advertising revenue decline, and another round of cost cutting. Ultimately, such weakened local

¹²³ J. Kraemer & R. Levine, analysis for US broadcast television groups (2002).

stations could have a high potential to end up broadcasting only programs created by others, or as candidate for purchase by another station in the market, as regulation allows.

A 2003 filing by NBC Television affiliates confirmed these trends (as an argument in favor of a requirement that cable operators be compelled to carry multicast programming streams, including expanded advertiser-supported local news coverage). According to the affiliates:

- 42 stations have cancelled local news in a 4-year period ending 2002, and more have cancelled since
- In 1997, the fourth ranking stations in markets 51-175 averaged profits of \$2.4 million; in 2001, they averaged a loss of \$2.8 million¹²⁴

The FCC has attempted to address the issue of local broadcaster financial viability by: a) easing rules on local consolidation, with the effect of allowing combinations of two stations in most markets and three in the largest; and b) eliminating the absolute ban on daily newspaper ownership of a television station in a community in which the newspaper is published to facilitate newspaper support of local television news.¹²⁵ With respect to the first, the FCC concluded:

To enhance the ability of broadcast television to compete with cable and DBS in more DMAs [market areas], we believe that the potential efficiencies and cost savings of multiple station ownership should be available to stations in a larger number of DMAs than permitted by our current rules. ...

Audience share data reveals ... that common ownership of two broadcast television stations has generally improved audience ratings. That is, the evidence we have for common ownership of two television stations suggests that more viewers prefer the post-merger programming. We therefore conclude that our current rule, which prohibits common ownership of broadcast television stations in most markets, is overly restrictive.¹²⁶

Impact of advertising competition on network programming. The shift of viewers away from broadcast networks, and the consequent shift of advertising share, appears to have had an effect on broadcast network programming, but not particularly an adverse impact on choices available to viewers. This is because cable and satellite operators provide a strong flow of funds to cable networks based on the fees these operators pay the networks for the right to carry that programming, plus the proportion of viewer-specific subscription fees paid for premium channels, such as HBO.

¹²⁴ Submission of NBC Affiliates Association, CS-Docket 98-120 (November 21, 2003, filed January 12, 2004).

¹²⁵ FCC, *2002 Biennial Review of Broadcast Ownership Rules*, 18 FCC Record 13620, 13760..

¹²⁶ FCC, *2002 Biennial Review of Broadcast Ownership Rules*, 18 FCC Record 13620, 13674, 13675 (2003) (footnotes omitted). On June 24, 2004, a federal appeals court upheld the FCC's basic determinations on these points, but remanded for further analysis the specific test (a viewpoint "diversity" index) to be used to determine the specific permissible ownership limits in a given market.

According to the cable industry, cable networks spent \$12.61 billion on programming in 2003.¹²⁷ Because cable networks are less dependent on advertising, they may be in a position to outbid broadcast networks for a share of first run programming, especially in a down cycle for advertising spend on broadcast networks. This has already occurred in national and regional sports where cable has outbid broadcast for sports rights (e.g., the National Basketball Ass'n).¹²⁸

Recent "Emmy Award" nominations (US television equivalent of "Academy Award" nominations for film) appear to signal a shift toward recognition of cable programming quality (and, perhaps, broadcast networks' fascination with cheaper-to-produce "reality" programming). In June, the award nominations announcement revealed that, for the first time, cable network programming received more nominations than broadcast network programming. Eighteen cable networks received 220 nominations, compared to the broadcast networks' 206¹²⁹. Premium cable network HBO received 124 nominations, compared to the next highest earner, broadcast network NBC, which received 65.¹³⁰

Extension of broadcasters into cable network programming. A further development has been the integration of broadcast and cable network programmers. That is, the owners of broadcast stations (especially including the major network operators) have become heavily involved in ownership of cable networks, either through internal expansion or acquisition. Thus, Disney owns the ESPN family of sports networks as well as ABC, and is able to allocate sports programming between its broadcast and cable networks. CBS's Viacom parent owns the MTV family of networks, NBC's parent, GE, recently acquired several elements of Vivendi's media properties to form the NBC Universal venture, which operates cable networks CNBC, MSNBC, and USA, and Fox, which controls FoxNews, FX, and several regional sports networks. Table 3.4 shows the ownership shares of the 20 most widely viewed cable networks, with broadcast enterprises highlighted.

¹²⁷ National Cable & Telecommunications Ass'n, *2004 Mid-Year Industry Overview*, p. 12.

¹²⁸ For example the National Basketball Ass'n's \$4.6 billion agreement with Disney and Time Warner put more than 90 percent of regular season games on cable in 2003.

¹²⁹ National Cable & Telecommunications Ass'n, "Cable Surpasses Broadcast with Record Number of Primetime Emmy Nominations" (Press Release, June 15, 2004).

¹³⁰ National Cable & Telecommunications Ass'n, "Cable Surpasses Broadcast with Record Number of Primetime Emmy Nominations" (Press Release, June 15, 2004).

Table 3.4
Ownership of the Twenty Most Widely Distributed Cable Networks

<i>Network</i>	Subscribers* (Millions)	Ownership (Broadcasters Highlighted)
1. Discovery	88.6	Liberty Media, Cox, Newhouse
2. C-Span (public affairs)	88.4	Funded by cable affiliates, but cable has no ownership or control over program content
3. USA	88.4	NBC Universal , Liberty Media
4. ESPN	88.3	Disney, Hearst
5. TNT	88.0	Time Warner
6. CNN	88.0	Time Warner
7. TBS	88.0	Time Warner
8. Nickelodeon	87.6	Viacom
9. A&E	87.6	Disney, Hearst, NBC Universal
10. Lifetime	87.6	Disney, Hearst
11. Weather Channel	87.5	Landmark Communications
12. Spike TV	87.4	Viacom
13. The Learning Channel (TLC)	87.1	Liberty Media, Cox, Newhouse
14. ABC Family	87.1	Disney
15. ESPN2	87.0	Disney, Hearst
16. MTV	86.8	Viacom
17. Headline News	86.5	Time Warner
18. VH1	86.4	Viacom
19. CNBC	86.1	NBC Universal
20. The History Channel	86.1	Disney, Hearst, NBC Universal

Sources: National Cable Television Association (data as of April, 2004); Kagan, *Economics of Basic Cable Networks 2002*. Note: Broadcast entities shown in bold.

* "Subscribers" indicates availability on cable systems that have this number of subscribers. For broadcast networks, the equivalent would be the aggregate number of TV households in all DMAs in which the network has either a network-owned station or an affiliate; for the three oldest broadcast TV networks (i.e., CBS, NBC, ABC) that number would equal all U.S. TV households.

Smaller broadcast groups have also developed cable channels, such as Scripps' Home & Garden and Do It Yourself, Channels¹³¹, and Tribune's "superstition" WGN, which is a version of that independent Chicago station's programming that is focused on a national audience¹³².

¹³¹ See www.scripps.com.

¹³² See www.tribune.com.

The potential role of multicasting on broadcast industry dynamics in the US multichannel marketplace. At this stage, the multicasting business models being considered by broadcasters are still being refined and subject to market tests.

- At present, multicasting primarily involves the rebroadcast of existing content to which the a television station has rights, more comprehensive broadcast of local news and weather by some stations, or avoidance of scheduling conflict regarding sporting events by permitting multiple simultaneous broadcasting of events to which the broadcaster has rights.
- The impact of multicasting on advertising revenues is not clear because the main rating agency is only now testing systems for incorporating digital television into its measurements.¹³³
- The NBC network and affiliates are proposing new, free-to-air national/local news and weather services that the affiliates believe will make a contribution to their financial viability; the ABC network-owned stations are testing similar efforts.
- Some stations are also experimenting with sharing spectrum for a pay-TV offering in specific market areas and it is too early to draw conclusions about the viability of such approaches. However, at least some observers think that the result of this experimentation between HDTV, multicast pay TV, and multicast local news/sports will result in a challenge to cable operators, with local advertising going to multichannel offerings being diverted from local cable operators.¹³⁴
- Multicasting could also prove useful as means of providing coverage of all national broadcast networks in smaller markets that could not support the required number separate television stations.
- Regulatory delay in establishing cable operator obligations to carry free-to-air multicast programming and the lengthy phase in-of the DTV tuner requirement has contributed to uncertainty regarding the most appropriate multicast business model.
- **In sum**, the U.S. experience has been that:
- The total television advertising market has grown significantly in an environment of liberal station licensing and competition with multichannel platforms, while within the television market, the share of local and network cable advertising share increased relative to broadcast television.

¹³³ See www.neilsenmediaresearch.com (FAQ)

¹³⁴ See “The Multicasting Challenge: Just as local cable advertising begins to take off, stations pose a new threat,” *Broadcasting & Cable* (June 7, 2004).

- Market fragmentation, while decreasing viewership for broadcast networks has increased the value of the “mass market” audience that remains. Thus, increased price *per-viewer* for broadcast network advertising has served to offset the potential revenue effect from a decrease in the number of viewers.
- Liberal licensing likely resulted in the entry of more television stations than supportable, in today’s environment, by advertising revenue alone in smaller markets; however, within-market consolidation and multicasting revenue opportunities may help sustain broadcasting viability.
- The combination of subscriber revenues and advertising has permitted non-broadcast networks to bid for and obtain high value programming and sports events.
- Media enterprises have moved to own/control both broadcast and non-broadcast networks, so that broadcast rights and funds for content (and concomitant revenue opportunities) potentially can be shifted between broadcast and non-broadcast distribution platforms as market conditions warrant.

B Canada.

Canada’s broadcast television industry is highly regulated, including a regard for the economics of over-the-air television. Due to the broad penetration of cable and satellite subscribership, and—especially—close proximity to the US market, the Canadian broadcast television industry is subject to significant competition. Canadians living close to the US border can receive US television stations over the air; others can receive retransmission of US network stations via cable or satellite providers. As the Canadian Ass’n of Broadcasters stated in a 2003 filing to the CRTC:

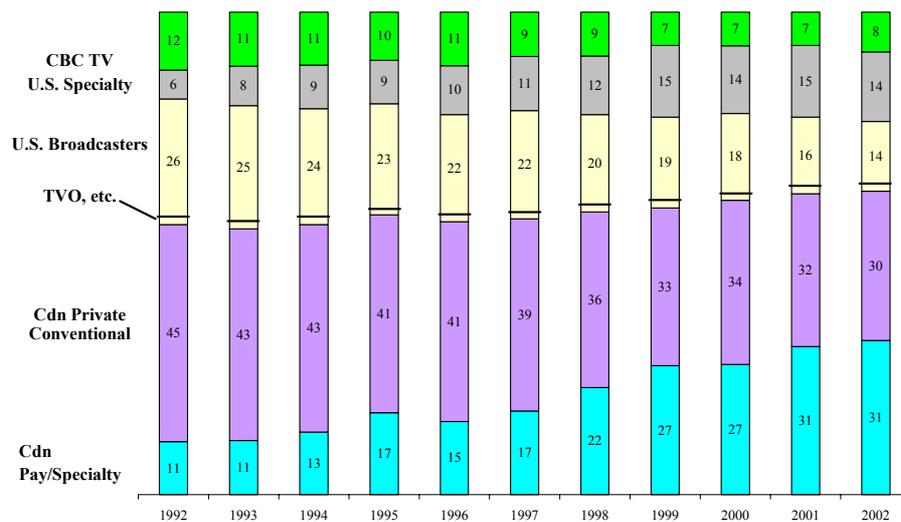
Canada’s private television broadcasters and pay and specialty services operate in one of the most competitive environments in the world. ... Every day, every night, U.S. networks stream into the Canadian broadcasting system unimpeded, competing for Canadian audiences. ... The abundance of rich offerings from the U.S., where economies of scale make high-cost productions and highly paid talent affordable, presents a unique challenge to Canadian broadcasters. Unlike broadcasters anywhere else in the world, Canadian broadcasters have to schedule against the best of NBC, CBS, ABC, PBS, Fox, A&E, and more. Canadian broadcasters must compete and hold their own against the creative appeal of the very best information, lifestyle, and entertainment programming, mass-market or high-brow, that Hollywood, New York, Boston, or Atlanta can generate.¹³⁵

¹³⁵ Canadian Ass’n of Broadcasters, submission to the CRTC in response to Broadcasting Public Notice CRTC 2003-54, p. 6 (November 28, 2003).

In this regard, in late 2003, cable had an audience penetration of 68 percent and satellite, 19 percent.¹³⁶ Moreover, a 2002 (English-speaking) viewer survey found that 29.3 percent “strongly agree,” and 46.8 percent “agree,” that “U.S. stations have better comedy and drama programs” than Canadian stations.¹³⁷

Chart 3.3 sets out trends in Canadian audience share, including US broadcast and cable (“specialty”) networks.

Chart 3.3
Audience Share of English-Language Television Viewers, 1992-2002 (Percent)



Source: Canadian Association of Broadcasters; CMRI (Nielsen January-December)

Nonetheless, the CRTC has paid attention to the issue of infestation advertising rivalry in local markets. For example, in July 2000, it approved an application by the CHUM group for an additional station in Victoria, serving the Vancouver-Victoria, British Columbia market. The CRTC found that the addition of a new station tends to increase total advertising and that a new station could attract advertising from a station, KVOS-TV, located in the US, but oriented to the Vancouver, BC, market. Nevertheless, it found that only *one more* station was allowable; presumably further applications would not be viewed favorably:

The Commission agrees that introduction of a new station tends to increase the amount of advertising to some extent. ... As well, the Commission notes the applicants’ projections that they would repatriate between five and six million dollars from KVOS-TV. On the other hand, the Commission considers that the

¹³⁶ Television Bureau of Canada, *TV Basics 2003-2004*, p.21.

¹³⁷ Canadian Ass’n of Broadcasters, submission to the CRTC in response to Broadcasting Public Notice CRTC 2003-54, Appendix II, p. 18 (November 28,2003).

market is still adjusting to the introduction of CIVT-TV [in 1997], and notes that there was little growth in advertising revenues from September 1999 to February 2000....

The Commission is convinced that advertisers will continue to view conventional television as an effective means of reaching a mass audience. ... After considering the relevant factors, the Commission has concluded that ... the Vancouver/Victoria market can support the addition of only one commercial television station at this time.¹³⁸

The CRTC reports that conventional television revenues (almost all advertising) for English-language conventional television broadcasters was essentially flat from 1998 through 2002 (from C\$1.496 billion in 1998 to C\$1.512 in 2002 (presumably also reflecting the 2001-02 global advertising recession).¹³⁹ During the same period, specialty and pay program services' revenue (from both advertising and subscription fees) increased significantly, from C\$658 million in 1998 to \$1.399 billion in 2002.¹⁴⁰

Effect on programming. The CRTC collects data on trends in expenditures on Canadian programming by both conventional broadcast and non-broadcast programming services (other than services funding by the Canadian Television Funding mechanism). The results show that English language commercial conventional broadcast expenditures on Canadian programming were relatively flat, declining from C\$404 million in 1998 to C\$391 million in 2002, while the CBC's programming expenditures rose from C\$311 in 1998 to C\$502 million in 2002.¹⁴¹ Non-conventional broadcasters' Canadian programming expenditures also rose significantly, from C\$221 million in 1998 to C\$510 million in 2002.

Thus, it would appear that total (non-CBC) investment in Canadian programming increased due to programming spend by specialty/pay services, which more than made up for the leveling off of investment by over-the-air broadcaster.

As in the US, enterprises that own over-the-air broadcast stations also own non-over-the-air program services. Thus, BCE, which owns the CTC television network, has an interest in 21 specialty, digital, or pay services.¹⁴² CanWest, which controls the Global Network, has an interest in nine, and the CHUM group has an interest in 18.¹⁴³ Thus, the decreased funds available for investment in over-the-air programming may not decrease program funding within the controlled enterprise, given the increase in Canadian programming investment by specialty and pay services.

¹³⁸ CRTC, *New Television Station on Vancouver Island*, Decision CRTC 2000-219, paragraphs 21-23 (6 July 2000).

¹³⁹ CRTC, *Broadcasting Policy Monitoring Report 2003*, p. 60.

¹⁴⁰ CRTC, *Broadcasting Policy Monitoring Report 2003*, p. 60.

¹⁴¹ CRTC, *Broadcasting Policy Monitoring Report 2003*, p. 67.

¹⁴² CRTC, *Broadcasting Policy Monitoring Report 2003*, p. 78.

¹⁴³ CRTC, *Broadcasting Policy Monitoring Report 2003*, p. 78-79.

Finally, the CRTC currently has a proceeding underway to identify incentives for over-the-air broadcasters to increase their investment in one category of Canadian programming, drama. The CRTC noted:

English-language Canadian drama faces economic pressure from a number of sources. First, Canadian broadcasters have ready access to the most popular programs at relatively low cost. The CAB noted that an original Canadian drama series costs roughly ten times per viewer as a comparable U.S. program. Second, the simultaneous substitution rules, which protect Canadian broadcasters' program rights, make the acquisition of U.S. drama more attractive and may negatively affect the scheduling of Canadian programs. Third, Canadian dramas with average production budgets of approximately \$1 million per hour must compete with U.S. programs whose budgets are at least three times greater. Finally, in recent years, the international market for Canadian programs has declined significantly.

In light of this, the Commission agrees that the lack of funding is a key contributor to the difficulties facing Canadian drama. Drama is generally expensive to produce and English-language Canadian drama programs have not, as yet, attracted audiences in the numbers that U.S. drama attracts. Those peak time Canadian programs that have garnered audiences of more than one million viewers have generally required significant public funding and, even then, have not earned a profit for the broadcaster.¹⁴⁴

The range of solutions includes increase limits on advertising during Canadian drama, as well as incentive credits for drama against overall Canadian content requirements.¹⁴⁵

The potential role of multicasting on broadcast industry dynamics in the Canadian multichannel marketplace. The ability of multicasting to affect the Canadian market is unclear, given CRTC policies that: a) make multicasting secondary to broadcast of HDTV programming; b) appear to favor new content over use of multicasting to rebroadcast existing program in competition with existing multichannel platforms, and c) give the CRTC broad discretion to take industry conditions into consideration in licensing particular multicast proposals. The specific balancing of viewer and "industry" concerns will have to await the CRTC's review of individual multicast applications.

¹⁴⁴ CRTC, *Proposed incentives for English-language Canadian television drama – Call for comments*, Broadcast Public Notice CRTC 2004-32, paragraphs 23-24 (6 May 2004).

¹⁴⁵ CRTC, *Proposed incentives for English-language Canadian television drama – Call for comments*, Broadcast Public Notice CRTC 2004-32, paragraph 118.

In sum, the Canadian experience has been that:

- Overall revenues for “conventional” and cable/satellite services have increased in a multichannel environment.
- Regulators have limited licensing of additional television stations based, in part, on the impact of a new station on the advertising revenues of existing stations; total conventional broadcaster advertising revenue as remained stagnant (but likely impacted by the global advertising down turn of 2001-02).
- Overall expenditures on Canadian content has increased as of multichannel competition grew, but investments by conventional broadcasters decreased, while investments by “specialty” and other non-conventional networks increased sharply.
- Media enterprises have moved to own/control both broadcast and non-broadcast networks, so that broadcast rights and funds for content (and concomitant revenue opportunities) potentially can be shifted between broadcast and non-broadcast distribution platforms as market conditions warrant (subject to CRTC content rules).
- Financial pressures regarding one sector of programming, Canadian-originated television drama, exist, but appear more related to competition with U.S. content, rather than any increase in the number of Canadian over-the-air broadcast outlets.

4 CHAPTER FOUR: Relevance and Guidance for Australia

4.1 Introduction

This chapter addresses the final two questions set for the report, for the countries covered in this study namely:

- What are the similarities and differences between the Australia market and the particular overseas markets studied?
- Is there any guidance from the overseas markets studied about the relative impacts of allowing multicasting or additional FTA licences?

4.2 Similarities and Differences between Australia and Countries Studied

Australian audiences appear at least as diverse and sophisticated in their preferences as those in comparable markets. The overall population and market in Australia is smaller than many other markets, although there is good purchasing power and significant concentration in large metropolitan centres. Metropolitan Australia is more reliant on terrestrial distribution than comparable markets i.e. much lower penetration of cable creating significant opportunity for multicasting. Significant geographic areas outside FTA coverage rely on satellite.

Australian regulatory arrangements appear to limit participation and constrain supply and competition more than in the other countries studied. As a result the Australian market exhibits a higher level of market concentration and lower level of multi-channeling availability, and penetration, with the risk that audiences may not enjoy the number and range of content streams available in other markets to meet their preferences. Similarly, advertisers may face a more limited number of suppliers and more limited options for targeting audiences, with the possible result that overall television advertising costs may be higher than in other markets and significant advertising expenditure may be diverted to alternative media.

DTT conversion rate and available programming time or output appears low for market size with commensurate potential to increase viewing levels. Low cost content appears to be available and as with other markets, digitalisation is reducing

costs of content acquisition and packaging, reducing the revenue threshold for the viability of new services

While FTA revenues increased in real terms since 1994, there has been no increase in supply. In 2003, rates increased in proportion to the increase in TV advertising expenditure. Australian total advertising expenditure appears comparable relative to other markets. Overall financial performance of commercial FTA sector appears strong

The Pay sector is relatively weak due to delayed start, anti-siphoning rules (sport) and rise of DVD (movies).

Table 4.1

Item	Measure	Comment	Similar/different
Audience	Qualitative	Australian audiences appear at least as diverse and sophisticated in their preferences as those in comparable markets	Similar
Advertising	Adspend/GDP GDP	Australian total Adspend appears comparable relative to other markets	Similar
Population/market size & density	Population/GDP	Overall market smaller than many other markets, but good purchasing power Low density– significant areas outside FTA coverage	Similar New DTT services likely to focus on metropolitan markets
Regulatory arrangements	Qualitative	Australian regulatory arrangements limit participation and constrain supply and competition more than in other markets	Greater latent demand for 4 th channel/multicasting services
Output/consumption	Output Level of viewing	Output appears low for market size Potential to increase viewing levels	No evidence of viewer saturation Possible greater latent viewer demand for 4 th channel/multicasting services
Advertising levels	Change in level/supply Sensitivity of prices Overall performance of commercial FTA sector	While FTA revenues increased in real terms since 1994, there has been no increase in supply. In 2003, rates increased directly in proportion to the increase in TV Adspend. Overall performance of commercial FTA sector appears strong	No evidence of market saturation and potential revenue source for multicasting or 4 th commercial FTA service
Distribution	Cable & satellite penetration	Metropolitan Australia more reliant on terrestrial distribution than comparable markets. Outback relies on Satellite but not relevant to 4 th Metro. licence/new FTA service	Feasibility outlook better and potential impact of multicasting &/or 4 th licence much higher.

Digitalisation	DTT as % of HUTs	DTT conversion rate low	Multicasting would require/drive higher conversion rate.
Competition from Pay	Pay penetration	Pay sector relatively weak due to delayed start, anti-siphoning rules (sport) and rise of DVD (movies)	Better starting point for commercial FTA multi-channeling service and/or 4 th participant
Content availability & cost	Qualitative Implied by output hours relative to other markets	Low cost content appears to be available – Seven wrote off inventory it was unable to screen following wind up of C7.	Good starting position for new content services, whether by new entrant or incumbents
Competitiveness of market	Concentration (as above) Barriers to entry with licensing regime	Australian FTA market less competitive	Multi casting and a fourth license could increase commercial & technical innovation (see following section)
Online	Broadband penetration	Low but rising	Improves prospects for new commercial FTA services – multicasting and 4 th licence relative to some other markets with higher broadband penetration
Content & packaging affordability	Projected profitability of multicasting/vs. 4 th licence (outside scope)	As with other markets, digitalisation is reducing costs of content acquisition and packaging, reducing the revenue threshold for viability of new services	Improves prospects for new commercial FTA services – multicasting and 4 th licence relative to past
Print sector	Share of overall Adspend	Print sector strong in terms of share of Adspend	Similar in most other markets studied
Non-commercial FTA	Viewer share	Sector is stronger in viewer share than in some other markets	Potential viewer/revenue source for new, targeted DTT services

4.3 Is there any guidance from the overseas markets studied about the relative impacts of allowing multi-channelling or additional FTA licences?

The table below summarizes the available policy choices in relation to multi-channelling and allowing additional FTA licenses. In the south west corner, or cell (0) one has the current policy situation of 2 national licenses and 3 commercial licenses with no multi-channelling. By permitting multi-channelling the policy setting would move north to cell (I). Alternatively by permitting a new license, the policy setting would move east to cell (II). In cell (III) both multicasting and a fourth license are permitted.

Table 4.2

(I) Multicasting only permitted	(III) Multicasting and new license
(0) Current Situation	(II) Issue new license only

Our tentative conclusion on the comparative evidence is that given the similarities and differences with other markets, **both** multicasting **and** an additional license appear feasible. Basically many of the local markets in Australia are under served currently by OTA and multi-channel services, compared to comparable countries where available channels through cable and satellite platforms, and licensed OTA broadcast is much greater. Both policy options, allowing multicasting and issuing an additional FTA license, will have a positive impact on competition and efficiency in the sense that both will lead to higher quantity of output (programs) and lower prices (advertising fees).

Moreover US and UK experience is that multicasting, plus an additional license, would have the greatest beneficial effects on competition and efficiency - i.e. compared to the current situation, or doing only one or the other policy change. In short the effects of multicasting would be enhanced by a fourth license and similarly the effects of the fourth license will be enhanced with multicasting.

As to the relative impacts of allowing multicasting, or a fourth license this depends on a number of factors including:

- First the form of multicasting permitted – in particular how many more channels will licensees be able, entitled and/or required to generate, and what will be the overall potential marginal increase in supply to the market?
- Second given the potential increase in output implied by multicasting, will this lead to a situation of potential excess supply, or a potential for the parties to produce more output than the market would sustain commercially?
- Third the extent to which other platforms exist providing multi-channeling to market - i.e. cable penetration:
- Fourth the extent to which multicasting involves a lower marginal cost means of offering multi-channeling: and
- Finally features of demand, and in particular the extent to which it is elastic, and currently supply constrained.

The situation in Australia appears to be that demand for multi- channeling services is highly constrained. In particular the low penetration of cable and satellite implies this relative to overseas. There is therefore likely to be a latent elastic demand for multi-channeling in Australia, similar to that observed overseas. The key question then is which method for providing the additional service is likely to do so at lowest cost – multicasting

or a fourth license, cable or satellite. The system with the lowest marginal cost stands able to contribute the most to competition and efficiency in meeting the latent demand.

On this point it is clear the marginal cost of adding an additional video stream by multicasting, or adding on additional video stream to the existing DTT infrastructure now in place in Australia, is lower than the marginal cost of doing so through licensing a fourth provider but not allowing multicasting. In order to launch only one more channel a fourth license would need to incur the roll out cost, and the higher operating cost of a start up. The marginal cost of existing providers of DTT adding one more channel would clearly be less.

Indeed the likely marginal cost of multicasting by current providers of DTT would appear to be lower than the marginal cost of extending either cable coverage, or satellite coverage as a means of providing multi-channeling. This point seems straight forward for cable coverage where cable may have to be laid out, and physical connections established to new houses. In the case of satellite it also appears that on the one hand the satellite set top box is more expensive than the digital to analogue converter, while on the other hand the out door antennae required for satellite is more expensive than using existing UHF antennae to secure DTT reception.

In general the lower the relative marginal cost of multicasting, the lower the current quantity provided, and the more elastic the demand, the more likely allowing multicasting will have a larger efficiency impact than issuing an additional FTA license. The higher the marginal cost savings from multicasting, the greater the output response will be when multicasting is allowed. If the current quantity provided with 3 players is low, and if the demand is elastic, the low quantity is more likely to be driven by cost considerations than a lack of competitive constraint. In which case an additional FTA license is unlikely to have as large an effect on competition and efficiency as allowing multicasting.

Our tentative view at this stage is that while multicasting may not directly effect market concentration, as it does not directly increase the number of players, it will change the dynamics of the industry and potentially lead to changes in the intensity of competition and degree of vertical integration. Multicasting will therefore have a significant impact on competition and efficiency. It would enhance the incentives to compete between existing players to the extent it in effect increases their available inventory, but more importantly it would increase potential market supply, output and choice by more, therefore offering greater potential efficiency gains.

While a fourth commercial license by itself might enhance rivalry, it would only increase the potential size of market supply or available choice by one commercial channel, at most a 33 percent increase in the number of commercial channels. By comparison allowing all existing license holders to multicast using existing spectrum could increase potential supply or output by up to 4 or 5 times, or by up to 400% to 500%. Under conditions of excess supply, implicit or explicit collusion is more difficult and market concentration of lesser competitive concern.