FINAL

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on behalf of

FOXTEL Management Pty Limited

Response on reasonableness of FOXTEL's CA/SI bundling

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AUTHOR'S STATEMENT

I have read and understood the contents of the Guidelines for Expert Witnesses in proceedings in the Federal Court of Australia supplied to me by Allens Arthur Robinson. I agree to be bound by the contents of those Guidelines.

Henry Ergas

27 March 2006

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1. EXECUTIVE SUMMARY

This report responds to the criticisms (dated 14 February 2005) made by Gregory John Houston (Houston report) of my earlier report dated October 2005 (Ergas report), and clarifies, where necessary, some of the points made in my earlier report.

Mr Houston concludes that neither my report nor that of Dr Williams establishes the reasonableness of FOXTEL's decision to limit supply of its conditional access and service information (CA/SI) services to those retail customers to whom it supplies a retail subscription television service.

He arrives at this conclusion by comparing the likely industry dynamics under FOXTEL's offer of a SAU (the factual) to those likely to apply in a world in which FOXTEL, in addition to the offer of a SAU, makes its CA/SI service available to third-party STUs (the counterfactual, which Houston labels "CA/SI unbundling").

1.1. THRESHOLD ISSUES WITH MR HOUSTON'S REPORT

The first difficulty in responding to Mr Houston's report is the lack of clarity surrounding his counterfactual. Important details are left ambiguous in his report. As a result, the factual of the SAU offered by FOXTEL is being compared, in effect, to an amalgam of different and in various ways internally inconsistent worlds. It is therefore unsurprising that Mr Houston finds the SAU is not superior to every one of these alternative worlds in every respect. Nonetheless, in my view it is superior to the likely alternative world on the issues critical to the Commission's evaluation under Part XIC.

The second difficulty with Mr Houston's report is that his analysis is predicated on a finding that FOXTEL possesses substantial market power in the subscription television market. As market power is the subject of Dr Williams' report, I do not go into depth here on the substance of that topic. However, there are important methodological problems with Mr Houston's reasoning in support of his conclusion on market power. As that issue is so important to his argument, I briefly critique his reasoning.

In order to fully engage with Mr Houston's argument, I adopt a more precise formulation of the counterfactual than Mr Houston and, for the sake of argument only, adopt the assumption that FOXTEL does possess substantial market power in the subscription television market. For clarity, I note that the counterfactual involves FOXTEL providing the same STU access that it would under the SAU, but *with the addition of* CA/SI unbundling, STU specification licensing, and 'security keys' to its STU. Under these circumstances, I consider whether the factual or counterfactual better serves the long-term interests of end-users by creating the conditions and environment for improving competition, and/or by encouraging the efficient use of and investment in infrastructure.

Mr Houston's main conclusions are that:

1. CA/SI unbundling would go some way to reducing FOXTEL's market power by reducing the barrier to entry allegedly posed by incompatibility between competing STUs and FOXTEL's established systems (paragraph 163); and

2. Unbundling CA/SI would provide for significant allocative efficiency improvements by reducing the barrier to entry allegedly posed by a lack of compatibility between competing STUs relative to the SAU (paragraph 195).

1.2. ENTRY BARRIERS

Compatibility between FOXTEL and third party STUs figures prominently in Mr Houston's analysis. Oddly, he acknowledges in other parts of his report that access seekers can and do enter the subscription television market without the level of technical STU compatibility that he says is necessary to compete. He elsewhere suggests that access to FOXTEL's content is the true barrier to entry, rather than compatibility or incompatibility *per se.* In my opinion, if the entry barrier is associated with access to FOXTEL's content, then CA/SI unbundling represents an indirect and inefficient means of ameliorating any harm that may be caused by this.

1.3. PROMOTION OF COMPETITION

Mr Houston's entire analysis of competition and allocative efficiency proceeds from the assumption that incompatibility between FOXTEL and access seeker STUs is a critical entry barrier. That assumption is not made out by the evidence Mr Houston cites In fact, Mr Houston's evidence is exclusively devoted to the more narrow proposition that customers are reluctant to buy incompatible STUs. Yet successful entry does not require that an access seeker's customers buy STUs. Furthermore, Mr Houston himself acknowledges that alternative forms of distribution exist and are capable of overcoming technical incompatibility problems. He says that fact is irrelevant to the barrier to entry question, but in my opinion he errs in this respect.

Mr Houston considers that competition and allocative efficiency may be harmed under the SAU, as compared with the counterfactual, because (he says) FOXTEL's basic package must be bought if access seeker content is to also be bought. However, Mr Houston does not establish that an access seeker could not make sales to consumers who do not have FOXTEL's content. For example, he does not demonstrate that FOXTEL's basic package is essential to consumers. In any case, accepting Mr Houston's view of the importance of FOXTEL's content leads me to conclude that the harm in the factual, to the extent it occurs, is likely to be small as compared with the counterfactual. Thus, on this ground, the counterfactual is only likely to be, at best, a little more efficient than the factual. This possible benefit of the counterfactual will likely be overwhelmed by the high cost of CA/SI unbundling in the counterfactual.

Mr Houston also considers the risk of foreclosure by manipulation of FOXTEL’s basic package in response to entry to be significantly higher in the factual than in the counterfactual. This concern again involves the assumption that FOXTEL’s basic package is essential, as well as assumptions about the impossibility of re-entry that are inconsistent with the existence of the SAU. Putting that aside, even if the foreclosure concern has some valid basis, unbundling the CA/SI would not materially reduce the risk of such a manipulation strategy succeeding.

Finally, Mr Houston disputes my view of standardisation, as we disagree in our emphasis. Because he relies on assumptions that I believe are unjustified, and fails to take account of the very significant costs of unbundling, I do not agree with his conclusion that unbundling would lead to standardisation that would significantly enhance efficiency or competition.

1.4. Efficiency

Mr Houston’s discussion of efficiency effects is mainly concerned with criticisms of the efficiency analysis in my first report. Many of these criticisms seem based upon a misreading of my earlier statements, and I wish to clarify these matters. Regarding the concerns I originally expressed about the need not to compromise the co-evolution of content, functionality, CA/SI and STU “standards”, Mr Houston’s comments suggest that some of the most important insights may not have been understood. For example, the point appears not to have been appreciated that in an unbundled CA/SI world, a collective action problem may inhibit an effective response to the need to upgrade CA/SI and STUs to capture a market-driven opportunity. I reformulate those concerns here in order to overcome the misunderstandings evident from the Houston report. I also re-state my views on STU subsidy, which Mr Houston has misrepresented, and STU and ownership. Finally, I explain why trying to compensate FOXTEL’s full costs of CA/SI unbundling through the access price mechanism will be costly (and potentially not possible) and hence further tilt the cost-benefit balance away from unbundling.

1.5. Structure of this report

The structure of my report is as follows:

- Section 2: Counterfactual ambiguities and assumptions;
- Section 3: Methodological problems with Mr Houston’s market power test;
- Section 4: Barriers to entry;
- Section 5: Promotion of competition;
- Section 6: Promotion of economic efficiency; and
- Section 7: Conclusion.

2. COUNTERFACTUAL IS AMBIGUOUS AND UNREALISTIC

This section highlights the lack of clarity in Mr Houston's references to the main counterfactual, CA/SI unbundling. Because certain important questions are left ambiguous or resolved through unrealistic assumptions, the factual of the SAU offered by FOXTEL is being inappropriately compared to an amalgam of different and in various ways unrealistic alternative worlds.

The first important question is whether the customer will rent the STU from the access seeker, or buy it. The ambiguity in Mr Houston's report is evident from his emphasis in paragraphs 107 - 109 and 116 - 117 on consumer reluctance to incur the risks associated with buying incompatible equipment, but then his summary in paragraph 136 speaks about a reluctance to buy or rent an incompatible STU, implying that the reluctance goes beyond an unwillingness to take ownership risks. There are important differences flowing from whether access seekers choose the ownership or retail model.[1] These include whether the customer must make a hardware purchase decision to take subscription television, the likely prospects for reciprocal access, and the degree of management that might be exercised over those STUs. Mr Houston's evidence regarding customer aversion to incompatible STUs is almost exclusively based on the assumption that they will be required to buy the necessary hardware, although elsewhere the possibility of the access seeker buying the STU and providing it to the customer is acknowledged. This lack of clarity muddies the question of what the real difference is between the factual and the most likely counterfactual.

In my view, both options are possible in the counterfactual, although it is the usual practice in Australia for STUs to be operator-owned, and any entrant that required customers to purchase their own STU would need to ensure the terms and conditions of its service took this into account. That being said, it seems to me unlikely that future subscription television customers will predominantly purchase their own STUs, and this therefore does not represent a likely counterfactual. As a result, I focus on the counterfactual in which access seekers supply their subscribers, where necessary, with an STU.

The second important question is whether technological standardisation would result from unbundling. Mr Houston makes assumptions that FOXTEL's technology either is already, or would become, the industry standard.[2] This assumption is important, because Mr Houston relies on standardisation as a stepping stone in the enhancement of competition, but I disagree that standardisation is sufficiently likely to be assumed. Even within Australia, FOXTEL's technology is not used industry-wide, and in any event standards are continuing to develop.

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1 The "ownership model" refers to ownership of the STU by the subscription television provider, while providing use to the user together with its programming. The "retail model" refers to a situation where the end customer owns the STU.

2 See, for example, Houston report paragraphs 144-146.

Third, reciprocal access to STUs (that is, non-FOXTEL STUs delivering FOXTEL programming) is assumed to be likely,[3] and Mr Houston points to the benefits that he believes this will bring. In my view, it is not likely that CA/SI unbundling will generate these benefits. FOXTEL places a very high value on its ability to manage its system end-to-end — an ability that would be compromised by a partial reliance on third party STUs to deliver FOXTEL programming to its own subscribers. I believe that FOXTEL is unlikely to move to a service delivery model that relies on third party STUs unless there is very significant adoption of customer STU ownership (which, I note, is contrary to industry practice in Australia) and resultant customer pressure to connect these devices to its CA/SI.

The fourth important issue is whether or not CA/SI unbundling also entails the unbundling of FOXTEL's content package, or whether FOXTEL continues to offer its premium tier content only as part of a bundle that includes the basic package. Mr Houston maintains that FOXTEL would alter its price or package following entry. He suggests[4] that, under CA/SI unbundling, access seekers can offer alternative standalone content at a significantly lower unbundled price, causing FOXTEL to alter its packages to providing a disaggregated menu of channel/pricing options. However, elsewhere[5] he asserts that some package alterations might occur under the factual as well.

Mr Houston's assumption that FOXTEL would change the structure of its offerings seems inconsistent with his emphasis on the "must have" nature of that content. If FOXTEL's content is indeed essential, it is unclear why FOXTEL would increase its profits in the counterfactual by unbundling it. As a result, the view that such unbundling would occur seems to me to have the nature of an assumption.

Given these assumptions and ambiguities it is unsurprising that Mr Houston finds the SAU is not superior to his counterfactual. Nonetheless, in my view the factual is superior to the properly constructed unbundling counterfactual on the issues critical to the Commission's evaluation under Part XIC, for reasons which I elaborate below.

3 For example, paragraph 107 speaks about customers desiring an ability to receive FOXTEL programming "through the provided STU." I infer that Mr Houston refers to a situation in which a customer can receive FOXTEL programming through a FOXTEL-compatible STU that is either provided by an access seeker or bought by the customer. Before it would be possible for the customer to receive FOXTEL programming through a non-FOXTEL STU, the other party would need to offer, and FOXTEL would need to agree to, reciprocal access to these third party STUs.

4 Houston report, paragraph 184.

5 Houston report, paragraph 133.

3. METHODOLOGICAL PROBLEMS WITH MARKET POWER TEST

Mr Houston uses the term “market power” rather than “substantial market power” throughout his report. In so doing he may mean substantial market power, which is what is relevant, rather than market power *per se*.

Of greater substance, Mr Houston proposes a test for (substantial) market power that considers evidence of the cut and thrust of competition as confirming a *lack* of competition. Such a test is not a useful means of identifying substantial market power. Indeed, the opposite is more likely to be the case: that it is an **absence** of competitive move and response that is indicative of substantial market power.

Finally, beyond the proposed test, Mr Houston relies on three unfounded assumptions in finding substantial market power.

In what follows, I deal with each of these points in turn.

In economics, a firm with market power is not a price taker, but rather can influence price. Outside of models of perfect competition and perfect contestability, pure price-taking firms are rare creatures. Most firms are able to somewhat raise their quality-adjusted prices above marginal cost without incurring prohibitive losses.[6]

However, economists do not consider any market that is not perfectly competitive as being uncompetitive, nor that firms, to be in competitive markets, must be passive price takers. The Australian approach to competition policy takes a similar position:

> *The basic characteristic of effective competition in the economic sense is that no one seller, and no group of sellers acting in concert, has the power to choose the level of its profits by giving less and charging more. Where there is workable competition, rival sellers, whether existing competitors or new potential entrants into the field, would keep this power in check…*[7]
>
> ***This does not mean we view competition as a series of passive mechanical responses to “impersonal market forces”****… There is… a creative role for firms… Competition is a dynamic process… generated by market pressure from alternative sources of supply and the desire to keep ahead.*[8]

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6 See, for example, Mankiw, N. G. (2004). *Principles of Microeconomics*. 3rd ed. Thomson/South-Western, pages 64 and 290, who cites ice-cream and milk markets as real world examples of perfect competition.

7 Re Queensland Co-operative Milling Association Limited; Re Defiance Holdings Ltd, (1976) 25 FLR 169 at 188; 8 ALR 481; ATPR 40-012 (hereafter *QCMA*). The text here is a quote from the United States Attorney General’s National Committee to Study the Antitrust Laws in its report of 1955.

8 QCMA, at 188; emphasis added.

In short, firms facing effective or workable competition respond to each others' actions. As Mr Houston puts it, "it is a normal competitive response for firms to seek to replicate or to improve upon services offered by their rivals" (paragraph 133). It is the thrust of move and countermove that is the essence of competition, rather than an indication of its absence.

In contrast, where there is substantial market power "the firm (or group of firms acting in concert) is sufficiently free from market pressures to 'administer' its own production and selling policies at its discretion."[9] Or put another way, the firm "has the power to choose the level of its profits by giving less and charging more"[10].

Mr Houston contests the view that FOXTEL does not have (presumably substantial) market power. He says the proper test is "give less and charge more", but says the best way of approaching this is to hypothesise about FOXTEL's reaction to entry[11]. He says that if, on entry, FOXTEL:

- would not materially change its prices or service quality, then it can be inferred that the market was already competitive and FOXTEL has no substantial market power.
- would reduce its prices and/or alter its quality or programming options, then substantial market power is implied, because FOXTEL is able to set prices with freedom that it would not enjoy if there was an entrant.

Mr Houston is right that if a single firm entered a perfectly competitive market it could not influence price, and that incumbents in that perfectly competitive market would not respond by changing their prices or strategies. However, one cannot thereby infer that a material response to entry demonstrates substantial market power. Indeed, it would be perverse (and contrary to the decision in *QCMA* as just quoted) to suggest that observations of competitive conduct, especially in an industry that is dynamic and innovative, demonstrate that the industry is in fact not competitive.[12]

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9 QCMA, p. 188.

10 QCMA, at 188, as quoted above.

11 Houston report, paragraphs 101-102.

12 Mr Houston's test is also subject to an obverse objection. In certain circumstances, the optimal strategy of an incumbent with substantial market power may be one of accommodation of entry (for example, if the incumbent's profit margins are high, making a price war very costly, and the entrant has limited productive capacity, limiting the extent of custom the incumbent may lose to the entrant, or if the entrant faces significantly higher marginal costs than the incumbent).

Putting the questionable nature of Mr Houston's test for substantial market power aside, Mr Houston believes that FOXTEL, in the counterfactual would be forced to reduce its prices and alter its fundamental programming choices.[13] In my view, Mr Houston's conclusion relies on three assumptions that are not well founded.

First, he asserts that unbundling CA/SI would remove a barrier to entry.[14] My reasons for believing that this is incorrect are set out in section 4.

Second, Mr Houston says that if the CA/SI were unbundled, entry would occur, but provides no direct evidence that this is so. In fact, there is in my opinion little material difference in terms of the attractiveness of entry between the factual and the counterfactual (see my discussion in section 5.1 below).

Third, Mr Houston asserts that if entry did occur, then FOXTEL would reduce price and improve quality. This again is speculation about what FOXTEL would do in such a situation. Apart from reasoning by analogy to distant jurisdictions and somewhat unrelated industries, Mr Houston does not establish the facts or provide the reasoning to explain or justify why FOXTEL would actually respond in this way. It is certainly unlikely that FOXTEL would engage in any substantial unbundling of its basic tier.[15]

In conclusion, Mr Houston's test for substantial market power is simply inappropriate. It appears to rely on perfect competition as the benchmark (in which it is indeed the case that the entry of new firms would elicit no competitive response) rather than on workable competition (where entry, and the many other factors that make markets dynamic, induce on-going competitive responses). In addition, his case for substantial market power relies on unestablished assumptions about an entry barrier in the factual, and about entry and FOXTEL's response in the counterfactual.

13 Houston report, paragraph 103.

14 Houston report, paragraph 103.

15 Requiring basic service for the purchase of premium services has long been standard industry practice in Australia and in many countries overseas. For example, on FOXTEL see http://www.foxtel.com.au/Step1Main.aspx; on AUSTAR, http://www.austar.com.au/default.asp ; on Optus see http://www.optus.com.au; for a US example from cable television see www.cox.com; and from satellite television, www.directv.com.

4. ENTRY BARRIERS

4.1. STU INCOMPATIBILITY

In paragraph 104, Mr Houston refers to "*the reluctance of consumers to purchase an incompatible technology*" as a "*critical entry barrier*". In paragraph 107, he explains that this reluctance arises (for non-FOXTEL customers) from the cost and inconvenience of having to switch to or buy a second STU if they subsequently decide to buy FOXTEL; and (for FOXTEL customers) from the desire to avoid switching costs if they take up the access seeker's service.

In this section, I examine Mr Houston's arguments, and conclude that no such entry barrier arises. I do this by looking in turn at four questions that arise from this contention:

- first, whether consumers have such a strong preference for FOXTEL programming that they will resist a non FOXTEL-compatible STU;
- second, whether any consumer reluctance arising from this might be overcome by renting the STU;
- third, whether consumers will stack two STUs, in order to receive two services;
- fourth, whether, in the counterfactual, STUs would be compatible and reciprocally accessible.

4.1.1. Preference for FOXTEL programming and FOXTEL-compatible STU

For incompatibility to amount to a barrier to entry in the way Mr Houston describes, it would need to be shown that, in the factual, customers who do not currently purchase FOXTEL value the option to acquire FOXTEL so highly that they would refrain from buying an access seeker's service unless it was delivered via a FOXTEL-compatible STU. In other words, the future cost of switching to or adding a FOXTEL service, discounted for both time (since it would occur in the future) and the uncertainty of its occurrence, would be sufficient to reduce the value they place on an alternative service from a level above its price to a level below its price.

This seems to me an unlikely outcome. The future cost of switching to or adding FOXTEL is not high, and it becomes no higher by reason of having already purchased an alternative service[16]. Once discounted as I have described above, it is even lower, so it seems that this would tip a customer's purchase decision against an access seeker in very few cases, if any. Moreover, the only customers who even have to consider this cost are those who value FOXTEL's programming, but choose not to buy it now.

16 Note that in the factual, the SAU ensures that no customer will need two STUs in any home that buys FOXTEL.

In any event, the cost of subscribing to FOXTEL is not reduced in the counterfactual. A new FOXTEL customer would still need a FOXTEL STU installed. (For reasons elaborated below, I do not think it is likely that FOXTEL would provide its service through a third-party STU, so a new STU installation would still be necessary.) As in the factual, the access seeker's service could also be provided through the FOXTEL STU, using the same STU access service as is presently offered under the terms of the SAU.

History and industry practice in Australia also suggests that customers do buy subscription television services where the STUs can receive no other service. Despite this, there have been high historic churn rates. Because Mr Houston fails to recognise these factors, he does not explain why access seekers face any burden that is asymmetrical to those faced by FOXTEL; nor why this should be considered a barrier to entry in the economic sense rather than merely a capital requirement common to all industry players.

4.1.2. Renting or buying the STU

There are broadly two models for STU provision. The so-called "retail model" involves the customer purchasing the STU from a retail outlet, and owning it. Alternatively, under the "ownership model", the subscription television provider owns the STU and rents it to the customer, generally bundled with a programming package.

The difference is important to any consideration of incompatibility as a barrier to entry because, under a retail model, the customer bears the risk and consequences of incompatibility. For example, if the customer churns off that provider, the STU loses its utility and the customer faces a capital loss. However, under the ownership model, the provider would retrieve and redeploy the STU, and ultimately bears the risk of incompatibility or obsolescence (which it can bear at lower cost than consumers because of its ability to redeploy the STU and manage the overall development path for its system).

Hence, under the ownership model, the customer can buy subscription television without having to factor in the risk of capital loss on an incompatible STU, should it decide to cancel the service. This seems likely, in my view, to overcome or considerably reduce any customer concerns about incompatibility.

Mr Houston does not appear to appreciate the relevance of this distinction. All of the sources he cites refer to problems with consumers having to *buy* incompatible hardware:[17]

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17 The one reference to any consumer reluctance regarding STU rental is found in the quotation under paragraph 118, in which the Deputy Director General for Competition for the European Commission stated, "*Quite apart from the investment required, consumers are reluctant to buy or rent more than one digital set top box.*" This statement was made not in the context of an official EC investigation, but in a speech to the International Bar Association, and expressly represented his personal views only. The reluctance to rent referred to there does not mention incompatibility.

- (paragraph 107) "…customers purchasing a personal computer operating system are reluctant to purchase a system that is incompatible with the Microsoft software suite, …"

- (quote beneath paragraph 109) "In the meantime, there is a need to ensure that consumers buying a proprietary digital set top box are not tied to a single provider of digital services."

- (paragraph 116) "One clear inference is that very few households were prepared to purchase and stack both a VHS and Betamax recorder – they purchased one or the other, with most purchasing VHS."

- (quote beneath paragraph 117) "If a new entrant wished to broadcast using the Astra satellite system but adopted a different encryption system to that used by BSkyB, it would still require subscribers to buy a new set top box."

  (Emphasis mine.)

As a result, Mr Houston fails to explain why any incompatibility problems cannot be overcome by simply following Australian industry practice i.e. the ownership model.

Moreover, by limiting his supporting examples only to purchasing, he has failed to demonstrate the consumer reluctance upon which his argument relies. The most that Mr Houston has established is that incompatibility is a barrier to consumer purchase of a third-party STU. His more general claim in paragraph 136 "*that customers are reluctant to purchase or rent an STU that is incompatible with FOXTEL's CA/SI*" is not supported by any evidence he cites. That unsupported general claim is the assumption upon which his conclusion to section 6.2.2 is based.

It is clear that access seeker entry and consumer purchase of a third-party STU are not synonymous. Indeed, FOXTEL did not require consumers to purchase STUs when it entered the market. Nor, to my knowledge, did Optus, Austar, Neighborhood Cable[18], or TransAct.

Mr Houston's conclusion that STU incompatibility is a critical entry barrier is therefore based on an incorrect inference from the evidence he cites, which establishes only a consumer reluctance to buy incompatible equipment. Moreover, it is inconsistent with actual experience with subscription television providers in Australia such as those mentioned above, none of whom have required consumers to purchase STUs, and none of whom have ever offered STUs that are compatible with FOXTEL.

18 See, for example, Neighborhood Cable, at http://www.ncable.net.au/!upload_files/attachment/NCable_Ts_Cs_Final_07_12_05_ADSLCABLEBBI_clean.pdf and TransAct, at http://www.transact.com.au/documents/soc.pdf.

4.1.3. Whether consumers will stack STUs

Mr Houston challenges my view that a reluctance to stack will not act as a barrier to new services, by citing examples of reluctance to stack. However, as I will demonstrate, he overlooks the more important point I made in my earlier report - that the SAU offered in the factual *removes the need to stack*, except in limited circumstances that do not involve FOXTEL at all. Moreover, he gives no explanation of why FOXTEL’s STU service would not be taken up, or why this would differ as between the factual and counterfactual. Finally, the examples he gives of reluctance to stack are in any event not relevant to the issues in this matter.

In my original report, I noted that under the SAU, no home that receives FOXTEL would need a second STU[19]. Nor would any other home that bought subscription television from one competing provider. Two STUs would only be required where a customer bought two non-FOXTEL services that each required their own STU. Even in this limited situation, the counterfactual would only deliver a superior outcome if reciprocal access were both offered and taken up between those two providers. As I noted in my original report (p 44), it is speculative to say this is more likely under the counterfactual than under the factual.

For this reason, it is my view that the SAU obviates the need to stack in most circumstances. The effect of Mr Houston’s view is to say that FOXTEL ought to go further and incur the costs of unbundling so that two hypothetical entrants who establish independent non-compatible platforms, but are willing to negotiate reciprocal STU access, can avoid the need for stacking by a subset of their customers that both overlaps *and* does not purchase FOXTEL. This seems to me to be an inefficient means of solving a remote, albeit possible, problem that has very little to do with FOXTEL.

Mr Houston may perceive stacking to be a more significant problem than the one I have just described, on the assumption that FOXTEL’s STU access service under the SAU (and under the counterfactual) would not be taken up. However, he has neither articulated nor justified such an assumption.

To the extent that stacking is nevertheless considered relevant, I now comment on the evidence that Mr Houston gives regarding stacking. All the material he cites[20] is dated, as it reflects experiences from between eight and thirty-one years ago - namely, the Beta/VHS experience from 1975 – 1989, a report from the UK Office of Fair Trading in 1996, and a speech by the Deputy Director General for Competition for the European Commission, Jean-Francoise Pons, expressing his personal views in a 1998 speech to the International Bar Association. Based on this evidence, Mr Houston concludes that customers would be reluctant to stack.

19 Ergas report, page 31.

20 Houston report, paragraphs 114 - 118.

In my view, it is reasonable to conclude that much has changed over the last eight to thirty-one years regarding consumer attitudes to stacking multiple devices. Technically, the proliferation of ports enables many more items of equipment to be connected to a television. Demand for television-connected consumer items, such as VCRs, game consoles, STUs, DVD players, hard disk recorders and DVD recorders has grown very rapidly in recent years. I therefore conclude that consumer attitudes to stacking, even if accurately reflected in Mr Houston’s examples at the times to which they relate, are likely to have altered in significant ways since.

In short, stacking is unlikely to be required since, under the SAU, no home that receives FOXTEL would need a second STU. The counterfactual could only improve on this in limited circumstances, where two non-FOXTEL subscription television providers served the same customer, who was not also served by FOXTEL, and offered reciprocal access to FOXTEL-compatible STUs.

4.1.4. Reciprocal STU access

The benefits Mr Houston identifies under the counterfactual (including the reduction of switching costs) accrue only if FOXTEL is offered and takes up the use of non-FOXTEL STUs to deliver its service.

As such, the benefits he claims are highly uncertain. In section 2 above, I explain why it is unlikely that FOXTEL would choose to use a STU that it does not own. In this respect, it is unlikely that the counterfactual would result in any different outcomes than the factual.

4.1.5. Summary on STU incompatibility

In summary, I do not believe that STU incompatibility constitutes a barrier to entry that unbundling would remove. Reluctance to use an STU that cannot also receive FOXTEL would, in my view, be unlikely to have a significant effect on an access seeker’s ability to sell its own service. This is especially so if - as is industry practice in Australia - the STU is supplied under rental bundled with programming. The need for stacking is largely obviated in the factual, applying in limited circumstances in which FOXTEL is not involved, and relative to which the counterfactual delivers very little improvement. Finally, the counterfactual is unlikely to deliver benefits such as lower switching costs unless reciprocal STU access is in place, which I consider unlikely.

4.2. FOXTEL’S CONTENT

Inherent in the argument that customers will not accept any STU that cannot receive FOXTEL is a contention that FOXTEL’s content or content package is essential to the success of any subscription television service, and an important barrier to entry. For example, Mr Houston says that Optus and Austar only succeed with a non-FOXTEL compatible STU because they have access to enough of FOXTEL’s content lineup.

To the extent that Mr Houston does rely on this argument, it is instructive to note that FOXTEL already has section 87B undertakings in place to sub-license its content to genuine infrastructure operators who operate their own networks and STUs.

Mr Houston raises a situation in which non-infrastructure operators can also gain access to the benefit of FOXTEL's content, via the unbundling of FOXTEL's content package. In paragraph 182, he suggests that FOXTEL would need to re-evaluate the composition of its basic and premium packages, *"and potentially the tie of access to the basic package itself".* For example, he posits a *"disaggregated menu of channel and pricing options"* and offers the example of customers purchasing only Fox Sports, or only Showtime, at lower monthly prices[21]. This would effectively give customers the option of re-assembling their own customised "basic" package (to select particular channels out of either basic or the tiers), in which the access seeker's content may play a bigger role than if it were either (a) a tier on top of FOXTEL's basic package or (b) a standalone access seeker offering.

Mr Houston does not elaborate on why he believes this might occur, other than to say it is a response to competition. What is not clear is why FOXTEL would find it profitable to unbundle merely because STUs were compatible, especially if its content is considered essential. It is standard practice for subscription television providers to provide tiered content only after subscribers have bought a basic package. It seems to me highly unlikely that FOXTEL would supply, as Mr Houston suggests[22], premium content such as Showtime to customers wishing to purchase *only* that content.

Nevertheless, if content unbundling is the real outcome sought from CA/SI unbundling, then unbundling appears to be an indirect and inefficient way of achieving that outcome. Inevitably, there would be high costs imposed by such a dramatic change to FOXTEL's business model, since its marketing, designed to optimise penetration and revenues, depends critically on the packaging of its content. These costs would be difficult to predict, but are likely to be very large. Such costs, together with the very high degree of uncertainty that CA/SI unbundling would in fact result in FOXTEL re-arranging its content packages or unbundling access from basic in the manner Mr Houston anticipates, suggest that it is an inapposite and economically inefficient solution.

Moreover, there may be legal issues with using Part XIC of the Trade Practices Act (1974) for this purpose, but as an economist I am not well placed to comment on that issue.

21 Houston report, paragraphs 184-5. Note that presently Fox Sports is in the basic package, while Showtime is on a tier.

22 Houston report, paragraph 184.

4.3. ALTERNATIVE DISTRIBUTION

In examining barriers to entry, it is relevant to consider alternative forms of distribution. In section 6.2.2.2, Mr Houston dismisses other forms of distribution, despite his acknowledgement that:

> *Technical incompatibility with FOXTEL's infrastructure can potentially be overcome if alternative distribution platforms exist over which to provide a competing service to FOXTEL. For example, Mr Ergas states that Broadband/IP television and subscription television over competing telecommunications networks provide such opportunities. I concur that there are alternative forms of distribution available on which to provide competing programming.*

Mr Houston's reason for dismissing this possibility bears close examination. He says:

> *However, such opportunities will be the same under both the SAU and CA/SI unbundling and so have little bearing on the assessment of whether competition for listed services has been promoted.*

The first thing to say about other forms of distribution is that if they are available (as Mr Houston says), and if they can overcome technical incompatibility with FOXTEL's infrastructure (as Mr Houston also says), then technical incompatibility can hardly pose a critical entry barrier. Obviously a barrier that can be overcome with an available facilitator is no barrier at all.

The second observation is that Mr Houston is incorrect to claim that opportunities that will be the same under both the factual and the counterfactual have little bearing on the assessment of whether competition has been promoted.

An example may serve to clarify this point. Consider an island where a supplier enjoys a monopoly over a good. The establishment of a ferry to the mainland would probably enhance competition for that good on the island by opening up the market to mainland suppliers. The factual in this hypothetical case would be no ferry and the counterfactual would involve a ferry. However, the existence of a bridge from the mainland to the island would be highly relevant to the assessment of whether competition would be promoted by the ferry, despite the fact that the bridge would be the same in the factual and counterfactual cases. If the bridge exists (as with the availability of alternative forms of distribution), then establishing a ferry (or unbundling the CA/SI in the present case) would not remove a perceived barrier to entry, and would have very little effect on competition.

5. PROMOTION OF COMPETITION

This section addresses Mr Houston's arguments regarding whether competition is better promoted in the counterfactual than the factual.

Mr Houston's assessment of whether the SAU would promote competition relative to the counterfactual he proposes is presented at section 6.2 of his report. That section begins with his assessment of FOXTEL's market power (section 6.2.1), to which I responded above. Here I address the arguments Mr Houston raises in his section 6.2.2 on incompatibility as a barrier to entry.

5.1. CLAIM OF REDUCED COMPETITION

Section 6.2.2.3.1 of Mr Houston's report contains his main argument concerning the allocative efficiency losses said to arise from FOXTEL's refusal to unbundle CA/SI. His later section 6.3 on the subject of economic efficiency merely repeats the conclusion he reaches here.

He identifies three distinct customer groups which he says access seekers cannot appropriately reach in the factual relative to the counterfactual to the detriment of competition. The first group, who regard FOXTEL and alternative providers as substitutes, may be steered by the SAU toward buying only FOXTEL, despite the possibility of benefiting from purchasing alternative channels alone (paragraph 126). The second group may buy FOXTEL to gain access to the alternative service even though they would not otherwise buy FOXTEL alone (paragraph 127). The third group may be deterred from buying any subscription television service by the price of FOXTEL's basic package, even though they may have been willing to pay more than the cost of providing alternative channels, including STU costs (paragraph 128).

The first two customer groups only purchase FOXTEL because they are forced to do so. The third customer group does not purchase subscription television services at all because they are deterred by the price of FOXTEL's service. Altogether these groups must represent a small minority of the market (given Mr Houston's assumption that most subscribers have a strong desire for FOXTEL content, and without access to these customers, access seekers will fail).[23]

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23 Mr Houston, in explaining why consumers would be reluctant to subscribe to a service that is not capable of receiving FOXTEL's content, considers subscribers who already purchase FOXTEL content, and potential subscribers, who he describes as wanting FOXTEL-compatible STUs just in case they one day want FOXTEL content (paragraph 107). What is notable about this is Mr Houston's sense that even today's non-subscribers place sufficient option value on access to FOXTEL's content that they would not purchase content from a third party unless that party's STU was FOXTEL-compatible. In paragraph 108, Mr Houston makes it clear that the issue is content and not a compatible CA/SI. There he notes having an incompatible CA/SI is not a problem so long as the supplier has access to FOXTEL content. Mr Houston gives "FOXTEL's embedded STU base" the same emphasis as STU incompatibility at paragraph 103; see also paragraph 104.

Mr Houston's argument hinges on two assumptions. First that an entrant cannot address the three customer groups just outlined in the factual, but can in the counterfactual, and second that these customers make the difference to the effectiveness of entrants[24].

The first assumption seems implausible, since unbundling the CA/SI changes little about the capacity of access seekers to serve these customers. Access seekers have the ability to provide STUs and compete head-to-head with FOXTEL on the merits, without reference to FOXTEL's basic package, in both factual and counterfactual.[25] Entry in the counterfactual would only be materially different if FOXTEL either unbundled its content or engaged reciprocal access. As I have discussed above, neither of these things are likely.[26]

That said, I put the preceding aside, and assume (in my view incorrectly) in the factual, that access seekers cannot service the three identified customer groups, but can reach them in the counterfactual. I now turn to the second assumption. That is, I consider the extent to which access seeker demand could increase in the counterfactual, making entry there profitable where it was not in the factual

Mr Houston's assumption appears to be that in the counterfactual, the three customer groups he identifies will unbundle the access seeker content from the FOXTEL basic package, and buy only the former. As previously noted, it is not clear why FOXTEL's CA/SI is so important to the access seeker in serving a customer who does not wish to buy FOXTEL's basic package, but this does provide a source of increased demand.

However, both the competitive and the allocative efficiency benefits of this would be small. Such benefits would be experienced only by customers who are in Mr Houston's first and third groups, an even smaller group than the three groups together. Only these customers would be able, under Mr Houston's assumptions, to make purchases in the counterfactual, that are not made in factual.[27] Any resulting efficiency gains would, of course, have to be weighed against the high costs of CA/SI unbundling, noting those costs will ultimately be passed on to consumers, reducing consumer surplus and overall welfare. Moreover, to the extent that unbundling costs are incurred on a per subscriber basis, they will be incurred by all customers and would almost inevitably dominate the efficiency benefits gained by the marginal subscribers of Mr Houston's three groups.[28]

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24 Mr Houston does not explicitly mention the effectiveness of entrants; but I infer from his statements in paragraph 125 regarding the reduction of demand for entrant services, and consequential reduction in prospects for competition, that his concern lies with the viability of entrants to provide competition.

25 Mr Houston's claims about the critical entry barrier posed by STU incompatibility were discussed in section 4.1.2 above, and shown to be premised on the nonexistent causal link between consumer purchase of STUs and access seeker entry. His claims that customers would have a sufficiently strong preference for a single STU to make it impossible to supply via a second STU are dealt with in section 4.1.3 above.

26 On unbundling content see footnote 15 above; on reciprocal STU access see section 4.1.4 above.

27 The second group makes exactly the same purchases from access seekers in both the factual and counterfactual.

For similar reasons, the benefits to competition in the counterfactual are also likely to be small. Only a small number of customers would buy where they do not in the factual, so that there seems to be little scope, if any, for entry conditions or rivalry among incumbent suppliers to be affected, much less affected to a material degree.

5.2. MANIPULATION OF THE BASIC PACKAGE

Mr Houston states in paragraph 131 that there is a greater risk under the SAU, as compared with the counterfactual, that FOXTEL may attempt to alter the composition of its basic package to disadvantage new entrants who have innovative tier content. In particular, Mr Houston suggests that "*FOXTEL may seek to introduce a similar channel as part of its basic package, potentially undermining that entrant's core audience*."

Mr Houston elaborates on the perceived risk in paragraph 133:

> *In my opinion FOXTEL may well have an incentive to alter the composition of its basic package by adding additional channels (not necessarily taken from the premium tiers), eg, by employing a 'copying' strategy. Indeed, it is a normal competitive response for firms to seek to replicate or to improve upon services offered by their rivals. However, in circumstances where the customers of rivals operating under the arrangements set out in the SAU must also subscribe to the FOXTEL basic package, FOXTEL is potentially able to foreclose any competing provider*.

Mr Houston concludes his analysis on this point in paragraph 135:

> *In my opinion the risk of such conduct* [alteration of the basic package so as to disadvantage competitors] *occurring is significantly greater when access is tied to the basic package, as is the case in the SAU, than it is in a scenario under which CA/SI is unbundled.*

In considering the reasonableness of the SAU, the critical question is not whether there exist any foreclosure risks of the type Mr Houston discusses. Rather, the question is whether such risks would be heightened significantly by the SAU, compared to the most likely counterfactual world. If not, then the existence of such risks, however great or small they might be, is not a reason for rejecting the SAU.

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28 The effects Mr Houston refers to are largely marginal, while the cost of unbundling represents an upward shift in the entire cost curve.

In my view, even accepting that foreclosure of the type postulated by Mr Houston is probable (and I do not believe that has been established[29]), the likelihood of such foreclosure is the same or only marginally higher in the factual than in the counterfactual. As a result, the expected efficiency gains of moving to the counterfactual would be negative after accounting for the substantial costs of CA/SI unbundling.

Mr Houston's copycat foreclosure relies on Mr Houston's view as to the indispensability of the service (FOXTEL's basic package) with which the contested service (access seeker content) is bundled. The SAU does not prevent an access seeker from obtaining its own CA/SI, providing its own STUs, and competing head-to-head with FOXTEL on its own merits without reference to FOXTEL's basic package.[30] By elimination, it must be FOXTEL's content that makes it possible (in Mr Houston's mind) for FOXTEL to capture the bulk of customers, foreclosing a rival's channel.[31] However, as previously noted (see section 4.2 above), Mr Houston assumes, but does not provide any reliable evidence to support his view that FOXTEL's content, in the form of a basic package at least, is essential to the customer, and therefore a 'must have' for the access seeker.

Even accepting, for the sake of argument, that copycatting foreclosure is possible under the SAU, the potential harm of copycatting foreclosure in the factual seems unlikely to be substantially different from under the counterfactual. As noted, copycatting foreclosure works because FOXTEL has access to all homes that receive access seeker programming under the SAU. Yet, by Mr Houston's assumption, most of the access seeker's customers are FOXTEL customers because of the attractiveness of FOXTEL's content, a fact that is unlikely to change to a significant degree under the counterfactual. Consequently, in the counterfactual, the bulk of the access seeker's customers would also be FOXTEL customers. As a result, they would be able to switch to FOXTEL's copycat content placed in the basic package. That is, unbundling CA/SI does not provide the access seeker with any additional protection from basic package manipulation, compared to the factual SAU.

29 This is for two reasons. First, it relies on FOXTEL having a substantial degree of market power, which has not been established – see sections 3 and 4 above. Second, even if FOXTEL did have such a degree of market power, it is not clear that the foreclosure strategy would be profitable. To effect foreclosure, FOXTEL would forego the revenue it could extract from the access seeker, while gaining only the incremental gain it could make by increasing the price of the basic package. Under most circumstances, that increase in the price of the basic package would be slight (as many consumers would not value that particular content highly). Once account is taken of the cost FOXTEL would incur in securing that content, it is far from clear why foreclosure would be profitable. The fact that such a strategy would entail significant legal risk only strengthens that conclusion.

30 Mr Houston's claims about the critical entry barrier posed by STU incompatibility were discussed in section 4.1.2 above, and shown to be premised on the nonexistent causal link between consumer purchase of STUs and access seeker entry. His claims that customers would have a sufficiently strong preference for a single STU to make it impossible to supply via a second STU are dealt with in section 4.1.1 above.

31 See footnote 15 above.

Against that conclusion it might perhaps be said that the access seeker is likely to have fewer non-FOXTEL customers under the SAU, than in the counterfactual. Accepting this were true, Mr Houston's assumption that the great majority of access seeker customers will also be FOXTEL customers means that the access seeker remains vulnerable to a basic package manipulation attempt even in the counterfactual. While it may not be quite as vulnerable, the assumption means that the foreclosure risk is not reduced significantly by unbundling the CA/SI. As a result, it is unlikely that there would be a substantial difference in the expected impacts of copycat foreclosure, assuming it is indeed possible, between the factual and counterfactual. If the counterfactual holds an advantage over the factual in this respect, it is likely to be swamped by the cost of CA/SI unbundling.

In summary, the concern about foreclosure through manipulation of the basic package involves assumptions about FOXTEL's market power that have not been made out. Even if the foreclosure concern has some valid basis, unbundling the CA/SI would not materially reduce the risk of such a manipulation strategy succeeding. Unbundling would, however impose real and substantial costs on FOXTEL.

5.3. STANDARDISATION AND THE COSTS OF UNBUNDLING

In s 6.2.3, Mr Houston asserts that, in my earlier report, I over-emphasised the potential detriment to competition from standardisation, while understating the benefits of an industry standard.

As I understand it, we share the view that firms may compete to establish a standard for CA/SI and STUs in subscription television; and also compete within a given standard. However, I emphasise the former, whereas he emphasises the latter, leading him to conclude that (paragraph 154):

> *…access to a standardised unbundled CA/SI/STU technology to both FOXTEL and non-FOXTEL retail customers would significantly enhance competition in areas beyond CA/SI/STU provision by removing the barrier to entry represented by incompatibility. This is likely to outweigh the loss of competition on delivery technology and performance.*

While I do not agree with this conclusion, I do agree with his comment that (paragraph 143):

> *It is not possible to say, a priori, that standardisation will or will not have a net positive effect on competition in the relevant markets.*

This, in my view, should invoke regulatory caution. Unless there is a clear danger to competition from bundling, regulatory forbearance is preferable due to the high costs such an intervention would have in this case. As I have discussed elsewhere in this report, the benefit to competition from unbundling CA/SI is unlikely to be significant, not least because Mr Houston has (wrongly) conflated consumer unwillingness to buy incompatible STUs with an access seeker's inability to enter the market (see section 4.1 above). In my view, there is no clear danger to competition.

My divergence of view with Mr Houston on this point also arises from our different views of whether standardisation will result from unbundling. I do not assume this, nor believe it to be likely. Mr Houston appears to assume[32] that either FOXTEL's technology is already the industry standard, or will become so if CA/SI unbundling is required. I do not believe this assumption is warranted[33]. FOXTEL's technology is not an industry standard – it applies only on its own platforms, not on Austar's platform, Optus' platform, or new platforms that are emerging – and unbundling its CA/SI will not alter that fact. In addition, I do not believe that unbundling is likely result in wide adoption of a retail model, which also appears to be part of Mr Houston's counterfactual (paragraphs 147 and 148). I do not believe this will occur widely because (a) it is contrary to current industry practice in Australia, something new entrants would have to overcome if they chose to adopt such a model; and (b) FOXTEL is opposed to it and unlikely to adopt it as it would lose its ability to manage its system end-to-end.

I therefore adhere to my view that the benefits to competition are unlikely to be significant.

At the same time, the costs of unbundling are likely to be high, even though some aspects of those costs are difficult to quantify. These were covered in my original report, and in the Engineering Report, but I repeat some important points here.

- If FOXTEL unbundles its CA/SI, it will no longer own all the STUs that are connected to its CA/SI, and will therefore lose the unhindered ability to develop its CA/SI and STUs in lockstep with its own business requirements. Instead, it will be dependent on the agreement of other STU owners on the development path.

32 Houston report, paragraphs 144 and 146.

33 In paragraph 144 of his report, Mr Houston incorrectly attributes to me an acknowledgement that FOXTEL's CA/SI/STU represents the current industry standard. He has taken my comments out of context – they were cast as responses to a hypothetical, expressly limited to FOXTEL customer homes (as opposed to the industry generally), and were made in the context of distinguishing current from future standards.

- This could have very significant effects on development and innovation. Failing agreement, either the whole system will be retarded (to the level set by the least developed elements); or some STUs will fail, undermining confidence in the system to the detriment of all providers on it. In my view, it is not reasonable to suppose that all access seekers and customers will be able to easily reach collective agreements on these matters. It is inevitable that there will be different demands and priorities that will be difficult to resolve. For example, if a games provider wants enhanced gaming functionality, the priority of the necessary upgrades would need to be set against other upgrades, such as an enhanced EPG, and it is unlikely that all players would agree. The cost of conflict and delay in system advancement must also be accounted for. In my view, the counterfactual is likely to entail high costs to system development and innovation, and high transaction costs among the various users. This compares with the factual, where users can select and compete on the technology standard that best suits their business, while also having the option to use FOXTEL's CA/SI and STUs wherever they are deployed (under the SAU), thus preserving the incentives to innovate and invest.

- These costs to development and innovation are particularly important because of the dynamic nature of CA/SI and STUs, which are both evolving incrementally (e.g. FOXTEL's iQ STU) and subject to disruptive changes (e.g. IPTV). CA/SI unbundling would therefore impose substantial dynamic efficiency losses.

- Even if development frameworks could be agreed, there are significant risks to sharing SI[34] with multiple STUs, since they must work optimally. These operational risks (and the testing required to manage them) increase with the number of SI changes and STU types on the network, both of which could only increase in the counterfactual. Typically, when SI problems do occur, they are system-wide, and require further SI changes to be halted.

- The priority of SI changes would also likely be disputed, leading to transaction costs similar to those outlined above.

- Overall, the task of ensuring that STUs remain compatible would become more difficult, incurring cost and delay.

While there are other costs not mentioned here, I raise these in particular because they impose efficiency losses over the entire system; and the more that unbundling results in more STU versions and more SI changes, the greater the magnification of these losses.

Because these costs are so significant, and moreover are difficult and costly to recover through access prices (for reasons set out in section 6.4), I remain of the view that the factual delivers superior results to the counterfactual, both for the promotion of competition and the preservation of efficiency.

34 Ergas report, page 8-9, including Engineering Report references.

6. PROMOTION OF ECONOMIC EFFICIENCY

The topic of economic efficiency is discussed in section 6.3 of Mr Houston’s report. His discussion there of allocative efficiency merely repeats the conclusions he reached in section 6.2.2.3. I have dealt with these points above under the heading of promotion of competition. To summarise my conclusions above, I disagree with Mr Houston’s analysis because it relies:

- first, on the linkage between a customer’s reluctance to buy incompatible equipment and an access seeker’s ability to enter the market. That linkage is incorrect in my view because an access seeker is capable of entering the market without requiring its customers to accept the asset stranding risks associated with ownership of the incompatible STU;
- second, on the inappropriate dismissal of alternative forms of distribution, which Mr Houston himself acknowledges would negate the barrier to entry;
- third, on a presumption that unbundling the CA/SI would significantly strengthen competition and improve allocative efficiency, when instead, it is my view that these benefits will be, at best, marginal, and in any case small compared with the high costs of unbundling the CA/SI; and
- fourth, on a theory of exclusionary bundling, which seems unlikely, and on the view that such exclusionary bundling would be significantly less probable in the counterfactual than in the factual. However, in my view, even if such a strategy were possible in the factual, it would be likely to be only marginally less attractive in the counterfactual. As a result, given the high costs of CA/SI unbundling, the expected gain from CA/SI unbundling is likely to be negative.

Mr Houston’s analysis of efficiency then proceeds in section 6.3.2 to criticise my earlier report on the following issues: the STU subsidy, the FOXTEL STU ownership model, and optimisation of CA/SI to STU and content requirements. He concludes that section by presenting a comparison between unbundling costs and allocative efficiency gains that in my opinion relies heavily on particular assumptions, and drawing an inappropriate analogy to the market for mobile telephone handsets.

The final part of Mr Houston’s report dealing with economic efficiency, section 6.3.3, deals briefly with the issue of dynamic incentives.

I respond to each of these criticisms below.

6.1. STU SUBSIDY

In discussing the likely effect of CA/SI unbundling on FOXTEL's policy of subsidising STU take-up by customers, Mr Houston has misrepresented my earlier report. At his paragraph 168 he claims that I contend FOXTEL's strategy of subsidising the cost of the STU would be affected by CA/SI unbundling. In fact, I make no such contention. I did not assert that the counterfactual would prevent FOXTEL continuing to subsidise the costs of STUs. In fact, there is no mention of the word 'subsidy' on the pages of my earlier report cited by Houston. Instead, the cited pages (my pages 47 and 56) discuss the costs of the retail model, and the implications of FOXTEL no longer owning all the STUs that receive its CA/SI. Accordingly his criticism of my report on the subject of STU subsidies is without foundation.

6.2. STU OWNERSHIP

In paragraph 174, Mr Houston quotes comments I made on page 56 of my first report regarding how CA/SI unbundling may undermine FOXTEL's STU ownership model. He fails to mention the points I made immediately below on my page 56, which provide the essential context for my quoted comments. A move away from an STU ownership model to an alternative in which FOXTEL's ability to control the STU standard is compromised would have two significant negative effects on FOXTEL:

- first, it would interfere with FOXTEL's ability to manage its end-to-end system;
- second, it would impede FOXTEL's ability to advance digital innovation.

The ability to manage FOXTEL's end-to-end system and the ability to advance digital innovation are compromised as soon as third party STUs - with which the FOXTEL CA/SI must remain compatible if those STUs are to function - are connected to FOXTEL's CA/SI.[35]

In light of these issues, Mr Houston's suggestion in paragraph 176 that "*FOXTEL could still retain ownership of many of its STUs by including this as a condition of a bundled offer to consumers*" misses the point entirely. By the time FOXTEL became responsible for maintaining compatibility between its CA/SI and a population of third-party STUs, the benefits of the ownership model, in the form of an ability to manage the end-to-end system and to advance digital innovation, would have been fatally compromised already. No form of bundled offer to consumers would redress that problem.

35 The FOXTEL SAU Engineering Report provides an example of this problem at p. 26: "*The Aurora satellite platform provides a broadcast stream that can be accessed by open market DVB compliant set top boxes. The Aurora platform has undergone very little technical evolution since it was launched because every evolution would cause more and more models of set top boxes to fail. The functionality of the Aurora platform is virtually constrained by the capabilities of the lowest standard set top box using the platform.*"

6.3. ECONOMIES OF SIMULTANEOUS CONTENT AND FUNCTIONALITY

Section 6.3.2.3 of Mr Houston's report critiques my view that CA/SI unbundling may compromise the economies offered by simultaneous development of content and functionality. He denies, at paragraph 180, that CA/SI unbundling would significantly disadvantage FOXTEL in this respect. His reason for saying so is his belief that "*An alternative content provider would appear to have an incentive to work closely with FOXTEL in order to enable the CA/SI to be developed to the necessary standard to support its content.*" He goes on to presume that technical cooperation would be forthcoming, as would "*appropriate compensation for costs to FOXTEL associated with any required upgrade.*"

Cooperation may well be forthcoming when the interests of FOXTEL and a single alternative content provider are aligned, but in general such alignment will not always occur. The CA/SI standard needed to support FOXTEL's offerings at any point in time may differ from the standard needed to support the offerings of an alternative content provider. When this difference occurs, there will inevitably be disagreements concerning the appropriate CA/SI standard and the financial contributions that each party would be expected to make towards upgrading costs. These disagreements are likely to be exacerbated by the fact that FOXTEL and the alternative content provider are competitors.

When there is more than one alternative content provider with a stake in the CA/SI functionality question, the likelihood of reaching agreement decreases rapidly as the number of parties increases. Experience with access regimes shows that coordinating decisions among multiple users can be difficult. Even with a common user platform like an airport, where the platform owner does not compete with the users, coordination of platform decisions can prove difficult. Such problems were faced by airlines in agreeing to necessary new investments at Australian airports prior to deregulation in 2002. Under the so-called "NNI" scheme, which was administered by the ACCC, airports could only recover the capital costs associated with infrastructure investment with the agreement of most or all of the affected airlines as to the necessity of that investment. Even with an unbiased arbiter, the disputes over such investments became extremely problematic (although the issues there seem to me more in the nature of free-riding).

The Productivity Commission's 2002 review of the airport regulatory regime expressed particular concerns about the workability of the NNI scheme.[36]

Relative to the airport situation, coordination of investment decisions would be even more difficult in situations where one user is vertically integrated with the platform owner and the technological basis of the service is dynamic. These exacerbating factors are characteristics of the CA/SI platform.

Given that experience, I do not share Mr Houston's confidence that the incentive of parties to cooperate would be sufficiently strong in all likely circumstances to overcome the many incentives to behave strategically.

6.4. DYNAMIC EFFICIENCIES

Mr Houston considers the issue of incentives for dynamic efficiency in section 6.3.3 of his report. He states at paragraph 193 that he agrees with me that it is not reasonable to expect FOXTEL to bear the costs of competitors connecting to its network, and that unbundling would require arrangements to ensure that this was not the outcome. His solution appears to be an access pricing regime for parties wishing to have FOXTEL's CA/SI support their STUs.

In the second dot point under his paragraph 191, he acknowledges two types of costs:

- Increased costs of network development (including the need for additional testing) driven by an increase in the variety of STUs (heterogeneity) supported by the FOXTEL network; and

- Retardation of the development of new services and application by FOXTEL as a result of heterogeneity among STUs.

36 "Price regulation of airport services", Productivity Commission report no. 19, 23 January 2002, pp. 231-245. Finding 8.2, at page 245 notes that "*The necessary new investment provisions have not promoted the commercially-negotiated outcomes that were envisaged by the architects of the regime. …the observed difficulties also point to some fundamental problems. In particular: …*

- *The incentives for some participants to approach the regulator rather than achieve commercially-negotiated solutions;*

- *The high costs of complying with the regime; and*

- *The regulatory risk due to the uncertainty and delays introduced by the need to have every investment-related price increase vetted by the regulator.*"

The nature of these costs makes them particularly difficult to quantify and apportion for the following reasons. Costs arising from heterogeneity are examples of a negative network externality. The adverse impact from the connection of one more type of STU is felt not only by FOXTEL, but also by every other STU provider on the system. Simply compensating FOXTEL for any detriment it suffers may not be sufficient, as other parties may be affected by the new STU provider's joining decision. More generally, the cost inflicted by one party's joining decision depends on the joining decisions of other parties. These joint costs are difficult to allocate between non-cooperative parties. For example, two different third party STUs may interact with each other in a manner that affects the performance of the entire system. Disputes are likely to emerge between the two third parties over who should pay, and dealing with them will likely itself impose high costs.

Equally troubling is the difficulty of quantifying opportunity costs arising from the retarded development of new services and applications. Opportunity costs can only be reliably quantified if the precise nature of the opportunity can be articulated and priced. Communication of that articulation and pricing information among the group of STU providers will not always be commercially feasible, particularly where competing content providers strive to obtain a first-mover advantage by being innovative with functionality and service packages. In order to obtain adequate compensation for lost opportunities, the opportunity cost would need to be verifiable. Verification would require FOXTEL to reveal its strategies for obtaining a first-mover advantage. Even if FOXTEL decided to do so, the hypothetical nature of the exercise creates possible error costs.

The high costs of quantifying and apportioning these network development and opportunity costs cannot simply be assumed not to exist, as Mr Houston appears to do. I believe that trying to compensate FOXTEL's full costs of CA/SI unbundling through the access price mechanism will be costly and hence further tilt the cost-benefit balance away from unbundling.

7. CONCLUSION

For the reasons above, I do not agree with Mr Houston’s conclusions and I remain of the view that, under the reasonableness criteria set out in the Trade Practices Act (1974), the SAU delivers superior results to the counterfactual involving CA/SI unbundling.

Accordingly, in my view, it is reasonable for FOXTEL to limit the supply of its CA/SI service to homes in which it already supplies its own retail subscription television service.