FINAL REPORT

Review of de Fontenay, Savin and Kiss

Submitted to

Telecom New Zealand Limited
PO Box 570
Wellington

Prepared by:

Professor Neil Quigley

Charles River Associates (Asia Pacific) Ltd
Level 11, Mobil on the Park, 157 Lambton Quay
PO Box 1123, Wellington, New Zealand
Tel: + 64 4 473 5080   Fax: + 64 4 473 5090

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TABLE OF CONTENTS

1. INTRODUCTION

1. Telecom New Zealand has requested that I provide the Commission with a review and analysis of de Fontenay, Savin and Kiss (2003), a paper submitted to the Commission by TelstraClear. My review focuses on the claims made by de Fontenay about the costs of vertical integration and the ability of unbundling to reduce or remove these costs, but I also offer some observations on the references that de Fontenay cite in support of their assertions.

2. OUTLINE OF THE ASSERTIONS MADE BY DE FONTENAY

2. The submission of de Fontenay is based on four assertions:

- Telecom's vertical integration can have no efficiency justification because it is a legacy of its former monopoly status. Telecom has retained its vertically integrated structure because this serves to protect it from entry rather than being motivated by efficiency;
- The vertical integration of Telecom is barrier to efficient entry by TelstraClear; and
- There are no important tradeoffs for the Commission to consider – all paths lead to unbundling improving efficiency.
- The literature in microeconomics and in particular the work of a number of leading economists supports the approach taken in their paper.

3. At the core of the de Fontenay paper is the claim that Telecom is vertically integrated because it inherited this structure from the period before 1990 when it was a state monopoly provider, and because it obtains monopoly rents by preserving this structure. De Fontenay (2003:3) claim that many of the activities conducted within Telecom would be more efficiently provided by markets, and that

> *The asset specificities that are still dominant within Telecom ... are largely due to the protections they convey against competitive entry rather than technological and organizational efficiency that benefit the sector (sic).*

4. For this claim to be true, it must also be true that:

- Telecom does not have incentives to adopt a more efficient structure than that which it inherited upon privatisation; which in turn means that

- Either Telecom's management and shareholders are not maximising profits, or, that Telecom obtains greater benefits from the monopoly rents resulting from vertical integration than it could obtain from adopting a vertically disaggregated structure.

5. The de Fontenay argument therefore requires that Telecom obtain monopoly rents from vertical integration, and in addition, that these rents be greater than the benefits that Telecom would obtain from adopting a more efficient structure.

6. De Fontenay offer no theory of how they think vertical integration creates monopoly rents for Telecom. Indeed, there is nothing in the paper to indicate that they have reviewed and understood, or are even aware of, the substantial theoretical and empirical literature on this issue that has been published in the last 15 years. Below I provide a brief review of this literature.

3. THE ECONOMICS LITERATURE ON VERTICAL INTEGRATION AND FORECLOSURE

7. The economics literature of the past 15 years contains numerous empirical and theoretical analyses of vertical integration. Professor Steven Salop (1997: 670) has summarised this literature in the following way:[1]

> *It is clear that vertical integration can unambiguously increase efficiency and output. These benefits can form the motivation for a firm to adopt a vertical integration strategy. They can also lead to lower prices if the firm does integrate. In addition, they explain how vertical mergers and contractual vertical integration can increase efficiency and consumer welfare. There are a number of sources of efficiency from vertical integration and vertical restraints.*

8. Thus, in contrast to the impression conveyed by de Fontenay, the economics literature does not support the presumption that vertical integration is inefficient.

9. Vertical integration promotes efficiency and lower consumer prices in two broad circumstances.

1 Professor Salop's views are the more important because he has been at the forefront of the literature exploring the special conditions under which vertical integration may not enhance efficiency (see for example Ordover, Saloner and Salop 1990, and Riordan and Salop 1995).

- Vertical integration can improve co-ordination in product design, production and marketing in the presence of asset specificity, contractual incompleteness (Tirole 1988: 25 – 28; Williamson 1985) and more general examples of imperfect information relating to the terms of the contract (Hart 1995). In other words, where vertical relationships require investment in relationship-specific assets, and where it is not possible to contract explicitly to resolve all disputes that may arise in relation to the vertical transactions associated with these assets, vertical integration may be more efficient than contracting between independent producers (Joskow 1991).

  The economic theory predicts that the market (as an organising structure for transactions) will fail to reflect the full economic value of transactions when such transactions involve specific and long-lived assets, have complex informational requirements, and require ongoing and close co-ordination between parties. In these circumstances, vertical integration will be the efficient, transaction cost minimising, means of organising transactions.

- Elimination of double marginalisation (Tirole 1988 chapter 4). Vertical integration can increase efficiency and reduce output prices by eliminating a double cost mark-up when the downstream market is imperfectly competitive. If the input producer and the input buyer both have some monopoly power, then both will add a monopoly markup to costs, leading to higher prices. This will be bad for consumers, but it may also result in less than the optimal revenue from the point of view of the firm. If the firms integrate, then costs and prices will be marked up only once, which will produce the optimum use of market power by the firm and a lower level of prices for consumers.

10. The literature on vertical foreclosure has identified a variety of special circumstances in which vertical integration may reduce efficiency, but each requires that the input supplier not be a monopolist. This follows from the well-known maxim that a firm may only take its monopoly profit once.

11. This literature has demonstrated that vertical integration may reduce economic welfare when it is motivated by a strategy of vertical foreclosure (Ordover, Saloner and Salop 1990) under conditions when the input-supplier is not a monopolist but the market for the supply of inputs is imperfectly competitive. For example, if the decision of an input-supplier to raise prices to the rivals of its downstream firm results in other input suppliers also raising their prices rather than expanding output, then vertical foreclosure can occur. Retail prices may be increased, and efficient competitors may be forced from the market, with the result that efficiency is decreased.

12. Now, consider the implications of this literature for the assertions of de Fontenay. If Telecom is a monopoly supplier of access to consumers of telecommunications services in New Zealand, it could not increase its monopoly profits through vertical integration (it can only earn its monopoly rents once). This means that de Fontenay's focus on vertical integration as the source of inefficiency is entirely inconsistent with the economics literature. Alternatively, if Telecom is not a monopoly supplier of the infrastructure input to NZ telecommunications (because other access technologies are viable competitors) then de Fontenay's assertions cannot be sustained because there is no competition problem for regulation to resolve unless it can be shown that there is co-operation with the other suppliers. In neither case is there any basis upon which to support the claim that Telecom obtains monopoly rents from vertical integration, or the claim that these rents would be removed by unbundling.

4. IS VERTICAL INTEGRATION BY TELECOM A BARRIER TO ENTRY?

13. De Fontenay (2003: 3) assert that Telecom's vertically-integrated structure "appears to be responsible for inefficient market conditions that discourage new entry and thus "dis-incent" investment". The issue, of course, is whether vertical integration by Telecom reduces efficiency by discouraging efficient entrants. Efficiency must be considered because we would not, for example, view Telecom's failure to subsidise its competitors as a barrier to entry.

14. The critical efficiency issue is whether the market(s) for telecommunications services is impaired by Telecom's vertical integration. This will, in turn, hinge on whether there are alternative means of entry that allow effective competition with Telecom. Disadvantage to an individual competitor is not an efficiency issue unless it reflects a more general disadvantage to competition. Thus, Telecom's vertical integration may be a problem for entry by Telstra, but so long as entry with other technologies (such as wireless) is possible then the absence of unbundling does not impair competition even if it impairs the particular business plan adopted by Telstra. If entry by another technology is feasible, then the fact that entry with Telstra's technology is not feasible is Telstra's problem, not a problem for efficiency that would justify action by the Commission.

5. TRADEOFFS BETWEEN ALLOCATIVE, PRODUCTIVE AND DYNAMIC EFFICIENCY

15. In the view of de Fontenay (2003: 8), "…there is no reason to assume that there are conflicts or trade-offs that need to be made among economic efficiencies – dynamic, allocative and productive". The unequivocal nature of this statement is unusual, since even those economists who consider that unbundling provides net benefits normally recognise the there are trade-offs to be considered. Below I explain why.

16. Among modern approaches to regulation, that with the most significant implications for property rights and for dynamic efficiency (the incentives for investment) is the requirement for infrastructure assets to unbundled at regulated prices. This form of regulation amounts to a confiscation of the property rights providing for exclusive use and the right to exclude use by others even though it does not overturn ownership as such.

17. The introduction of unbundling is rarely associated with the payment of compensation appropriate to the property rights that are confiscated. More importantly, there are no well-defined methodologies that can ensure that the regulator will set the efficient price for the lease of an unbundled asset. For example, an efficient price would recognise the risks carried by the regulated firm as the residual owner of a sunk investment in network infrastructure and the cost associated with providing competitors with an option to use the asset if it is attractive to do so and to invest in their own network if it is not. An investor will not be indifferent between ownership of an asset for its own exclusive use and ownership of an asset that it may be required to share with or lease to others.

18. Thus, the impact of unbundling on the security of property rights and the ability to earn a competitive return on sunk investments necessarily has negative implications for the incentives to invest. This, in turn, will reduce the likelihood that society will obtain the benefits of new services and competing networks (as opposed to competing users of the same network). These dynamic efficiency losses will be built into any intellectually credible analysis of the costs and benefits of unbundling.

6. INTERPRETATION OF THE LITERATURE CITED

19. De Fontenay references a number of articles by prominent economists, suggesting that these economists support the assertions being made. However, the quotes are frequently taken out of context, and in several cases the authors actually hold views that are inconsistent with the assertions made by de Fontenay. In the interests of brevity I offer only three examples of de Fontenay's misuse of these citations.

20. Michael Powell of the FCC is cited as saying that:

> *You know, there's a million ways to Sunday to get beaten up by an incumbent that's not particularly interested in helping you compete.*

21. This quote is used to support the view that Telecom can be expected to frustrate unbundling.

22. The full quote is as follows:

> *The real issues are about how many things and how deeply you do that if you have a preference for facilities-based competition. And I make no apologies for being committed to that, because I think it's important to give consumers a truly differentiated choice, an opportunity for innovation. I think it's an important and viable competitive threat that there are other infrastructures competing with the phone systems. We wring our hands about the proposition of being so reliant on the big bad incumbent for our facilities and the price is never low enough and they won't let us go to the bathroom when we're there connecting.* ***You know there's a million ways to Sunday to get beaten up by an incumbent that's not particularly interested in helping you compete.***
>
> *What we see is that you can get real heat on them when somebody is less dependent on them as their competitor. I think the more facilities that you can bring to the party, the more long-term viability you have as a competitor; it's better for consumers and it's better to be less dependent on the incumbent to sort of help mitigate their ability to frustrate the objective. So I actually think it's a very pro-competitive position.*[2] ***(emphasis added)***

23. The quote used de Fontenay is therefore quoted out of context from a piece in which Michael Powell is *supporting* facilities-based competition as superior to unbundling.

24. At footnote 3 of the de Fontenay paper, David Teece is cited as supporting unbundling. That support related to a limited form of unbundling (copper and voice switching) that was being proposed by some ILECs (incumbent local exchange carriers) at the time (early 1990s), did not involve unbundling of new investments in data networks, and would have been priced at a level that recognised the business risks to the incumbent of supplying unbundled elements. With Jorde and Sidak, Teece (2000) has subsequently published material on the economic harm that flows from the type of unbundling that is being considered by the Commission.

25. At footnote 11 de Fontenay cite Jean Tirole (1988) as saying that "it is not clear why economies of scale should be exploited within the firm". While it is true that Tirole does make this statement, it is made as a means of setting up the subsequent exposition (chapter 2 and chapter 4) of the theory of vertical integration and the conditions under which economies will efficiently be exploited within the firm.

2 Source: http://www.xchangemag.com/webextra/241webx1.html

7. CONCLUSION

26. The assertion of de Fontenay that vertical integration is a source of monopoly power for Telecom, and that unbundling will remove this source of monopoly power, is inconsistent with the modern economic literature on vertical integration and vertical foreclosure. De Fontenay's dismissal of the efficiency trade-offs associated with unbundling does not address the issues raised by impairment and confiscation of property rights, and its implications for dynamic efficiency. The literature cited by de Fontenay generally does not support their arguments when it is read and understood in context.

8. REFERENCES

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