



Investigating the Benefits and Costs of the Structural Separation of Telstra

A Submission to the House of Representatives Standing
Committee on Communications, Information Technology
and the Arts – Inquiry into the Structure of Telstra

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1 Background

Telstra is a partly privatised, vertically and horizontally integrated firm in the telecommunications industry. Its operations involve markets with varying degrees of underlying competitiveness, different means of regulation (both technical and economic) and different levels of technological maturity.

The structure and behaviour of Telstra are key factors in determining both the efficiency of the telecommunications industry in Australia and the overall development of competition and innovation in telecommunications. This submission reviews the economic theory regarding the benefits and costs of structural separation of Telstra. That is, what does standard economics suggest would be the consequences of separating Telstra into two or more independent enterprises?

This submission is intended to highlight the relevant economic arguments that would need to be investigated in a broader study into the appropriate corporate structure of Telstra. We do not weigh up specific alternative restructuring proposals as any such proposals would need to be considered as part of rigorous study into Telstra's structure. As such we do not conclude that one or other structure would be preferred for Telstra. Rather, we conclude that a rigorous inquiry into these alternative structures is both justified on the basis of economics and is important to the future of the Australian telecommunications industry.

2 Anti-Competitive Effects of Integration

Telstra possesses a virtual monopoly over a critical element of the telecommunications industry – the customer access network (or CAN). This provides it with close to a monopoly position in fixed line telephony in all areas other than the CBDs of major cities. Even in the CBDs, Telstra's control of the ubiquitous CAN provides it with a dominant market position.

Because Telstra controls the CAN, it is also able to exercise significant influence over the provision of related retail services, such as fixed-line local and long distance telephony, and DSL broadband internet services. Thus, while it faces competitors in some parts of its business, those competitors must deal with Telstra if they want to provide services that allow their customers the ability to receive or make calls to fixed-line users. For instance, an independent mobile network operator will need to interconnect with Telstra's fixed line network in addition to the mobile networks owned by Telstra and other carriers. By owning and controlling the CAN, Telstra owns and controls a critical hub in the telecommunications network. Ubiquitous telecommunications services can only be achieved by Telstra's competitors accessing the CAN.

At present, Telstra's ability to use its market power in the CAN is limited by various price and non-price regulations. But, as we discuss below, many of these regulations are a response to Telstra's structure. To understand the implications of Telstra's integrated structure for telecommunications competition, we need to consider the hypothetical situation that would arise if Telstra's CAN business was not regulated. In this way, we can consider the underlying competitive problems associated with Telstra's structure.

In the absence of regulation, Telstra would be able to use its monopoly position over the Customer Access Network both to control the degree of competition in related telecommunications markets and to distort competition in these markets. In particular, it would be able to favour the competitive position of its own businesses in those related markets by:

- Excluding potential competitors from interconnecting to the CAN by denying interconnection;¹
- Charging higher wholesale prices than its own internal prices to those interconnecting with it, choosing inflexible standards, or limiting capacity over the interconnecting switches;²

¹ In economics, this is referred to as *vertical foreclosure*. While such foreclosure can in principle be achieved without vertical integration (Posner, 1976; Bork, 1978), recent work has demonstrated that integration makes foreclosure much more likely. Vertical integration can allow the bottleneck monopolist to leverage its market power in to other segments (even where it is a less efficient operator than its rivals). See Hart and Tirole (1990) for a seminal investigation and Rey and Tirole (1997) for a survey of the recent literature.

² This is a 'raising rival's cost' story, first explored by Salop and Scheffman (1983). It is also seen as a major element of the anti-competitive behaviour of Microsoft (Bresnahan, 2002). See King and Maddock (2002) for a review of issues associated

- Using its advantageous position in one market to leverage its market power into horizontally related markets, for example, through product bundling;³
- Using its unique access to and control of customer information to undermine the ability of rival firms to compete;⁴
- Limiting its rivals' ability to appropriate higher returns from their own innovation and investment.⁵

In each case, Telstra would be improving its own competitive position not by activities that improve its own operations and product quality per se but with actions that improve its relative standing by raising the costs of its rivals or otherwise harming their ability to deliver products of comparable quantity.

In contrast, consider the case of a firm that owns a monopoly bottleneck facility (such as the CAN) but is not integrated into related vertical and horizontal markets and does not directly compete in retail markets with those firms that it supplies in the wholesale market. Compared to the fully integrated Telstra, such a structurally separated firm:

- Would still have some degree of monopoly power over consumers;
- But its incentives would be to *encourage* both the development of related markets and competition in those related markets. From the separated firm's perspective, increased competition in downstream markets (like retail fixed line telephone

with an integrated bottleneck monopoly raising rivals' costs and creating a vertical price squeeze.

³ The ACCC recently released a draft information paper on the potential for anti-competitive bundling in Australian telecommunications. See Australian Competition and Consumer Commission (2003).

⁴ For example, interconnecting firms using the CAN to offer retail long distance calls rely on Telstra to provide the relevant customer line identification with a call in order to bill customers.

⁵ This too is related to the issues that arose in the Microsoft case. Basically, Telstra's bargaining position is improved by its vertically integrated status, lowering the returns that other firms might be able to earn in the industry; including the returns they would receive from introducing innovative technologies – part of which would flow to a vertically integrated Telstra. See de Fontenay and Gans (2002) for a comprehensive analysis.

services) increases demand for its wholesale products (such as the CAN) and raises its profits. In this sense, the upstream firm's incentives are aligned with the interests of customers;⁶

- Firms in related segments would be on an equal footing with respect to access to technical standards and customer information as the bottleneck monopoly firm would have no reason to favour one competitor over another;
- Firms in related markets would earn returns from investment and innovation according to the improvements they provide relative to their competitors and not see those returns disappear as a result of their low bargaining position with respect to an integrated competitor.

Thus, while restructuring cannot get rid of the fact that Telstra might have a monopoly over a key element in the telecommunications industry it can diminish its ability to utilise that monopoly to the detriment of consumers.

Moreover, such a situation maximises the chance that, in the future, one or more of the other participants in the telecommunications industry might be able to exploit new technological opportunities that diminish the importance of the CAN and hence, Telstra's long term market power. In contrast, an integrated Telstra would be able to limit this potential by favouring its own downstream operations with regards to the adoption of new technology.

3 The Technical Effects of Integration

While the above analysis suggests that, all other things being equal, structural separation is preferable to integration, that analysis does not consider whether integration might itself allow a firm to be more efficient than if it were separated. Simple logic dictates that most firms do more than one thing in a production process and hence, we

⁶ Basically, a vertically and horizontally separated firm would be concerned about favouring one firm over another for fear that it would be handing that firm a monopoly position over it in the future. To limit that countervailing power, it would encourage more entry and competition in those segments. Thus, a vertically separated firm's incentives regarding the structure of the market in related segments would be more aligned with their own customer's interests. See Waterman and Weiss (1993) and de Fontenay and Gans (1999) for an analysis.

would expect there to be some productivity gains from their joint operation and ownership.

However, this logic can be taken too far. Recent economic thinking argues that there are costs to integration in terms of lower managerial and employee motivation; especially when service provision of different functions does not require close coordination.⁷

Thus, in terms of assessing the possible costs of structural separation, an assessment is required as to whether the operation of two businesses requires close coordination and hence a common management. In telecommunications, there is a strong sense in which such coordination is not required across Telstra's broad businesses. This is precisely because other firms are able to compete against Telstra in some business areas as separated entities. This would not be possible if integration provided significant cost savings or gains from coordination.

Indeed, the premise that entry into related markets in telecommunications does not require integration (and close coordination) has been the driving force behind the open access telecommunications reforms that have been implemented in Australia and elsewhere. In some cases (i.e., the US), we have decades of experience that it is possible for local fixed service and long-distance firms to operate separately in telecommunications. In mobile telephony, operations that are separate from the fixed-line network have been the norm right from the start.

This suggests that the actual separation of Telstra's businesses may be technically feasible.⁸ However, a precise conclusion as to what types of businesses could be created would require a closer technical study of Telstra's operations; perhaps by an independent entity such as the Australian Communications Authority or the Productivity Commission that also have a full understanding of the operation of all telecommunications firms in the Australian context.

⁷ See the comprehensive review by Hart (1995) and also the influential text of Milgrom and Roberts (1992). That integration may be harmful to firm profits is illustrated by the recent vertical divestiture of steel operations by BHP/Billiton and the creation of the separate company OneSteel.

⁸ This was an issue in the AT&T and Microsoft antitrust cases where upon close investigation, judges in both instances recommended that a break-up would not be too costly despite vigorous arguments that break-ups would be impossible to achieve.

4 Public Ownership and Regulation as Substitutes for Separation

Two arguments often made in support of retaining Telstra as an integrated business: (1) it is still majority-owned by the Federal government and (2) its ability to abuse market power is limited by stringent regulation. However, both of these factors are reasons why a full inquiry into the structure of Telstra is necessary for the future development of telecommunications in Australia.

Telstra is partially privatised. It is widely recognised that this 'half public' ownership creates conflicts for Telstra's on-going operations. Economic analysis suggests that some parts of Telstra are best operated through full private ownership. These are the areas, such as retail mobile telephones and long distance services, where Telstra competes with a variety of private competitors. In these markets, competition between vertically separated firms would lead to benefits for consumers. However, some parts of Telstra may best be left in public hands or, if privatised, will need to be subject to intrusive ongoing regulation for the foreseeable future. These are the monopolistic areas of Telstra's operations, such as the control of the CAN. In these areas competition will be muted or non-existent in the short term.

The conflict that exists within the integrated Telstra between potentially competitive segments and monopoly segments means that a satisfactory privatisation program for Telstra cannot proceed in the absence of restructuring. Some form of structural separation between potentially competitive businesses and monopoly operations within Telstra is a necessary precursor to a resolution of Telstra's ownership.⁹

Telstra is currently highly regulated. This regulation is both costly and imperfect. The regulation has resulted in significant on-going costs to the government and its regulators, Telstra and other telecommunications firms. Regulation is also litigious. Australian and

⁹ King (2002) and King and Pitchford (1998) present the economic arguments relating competition and ownership. It is useful to note that in the UK, restructuring and vertical separation proceeded privatisation in electricity but not in the gas industry. This led to significant problems post-privatisation in gas, and inquiries by the Office of Fair Trading and the Monopolies and Mergers Commission in the UK both recommended vertical restructuring after privatisation. In 1997, British Gas voluntarily restructured creating Centrica and BG. See Armstrong, Cowan and Vickers (1994) and Newbury (1999) for more details.

overseas experience has shown that telecommunications regulation can involve long, expensive legal proceedings that provide little short-term relief for customers.¹⁰

At least some of this regulation is motivated by Telstra's integrated structure. While in principle regulation might constrain the ability of a fully integrated firm like Telstra to abuse its market power, in practice many barriers exist to the implementation of efficient regulation in industries such as telecommunications.¹¹ One of the benefits of restructuring – both for Telstra and others – is that it would remove the *prima facie* case for many forms of price regulation currently in place.¹² In this sense, the restructuring of Telstra would act as a substitute for increasingly intrusive regulation. As such, structural separation for Telstra need not harm the value of Telstra over the long term. Rather, as in the case of British Gas, restructuring can be privately profitable when compared with the alternative of increasing, on-going regulation. Restructuring, in this sense, is effectively a deregulatory process.

5 Recommendation

In many ways, the decisions of the Federal government regarding the structure of Telstra are decisions that relate to the structure of the telecommunications industry itself.

For this reason, it is important for the Federal Government to critically analyse the way in which Telstra is structured and to consider whether some form of vertical and/or horizontal separation is warranted. This would require a two pronged investigation focussing on:

- What types of business entities could be technically separated from Telstra in an operational sense?

¹⁰ The imperfections and limitations of regulation are illustrated by the existence of extensive, contentious, on-going regulation more than ten years after telecommunications deregulation commenced in Australia.

¹¹ These impediments are reviewed by Sidak and Spulber (1998) and Laffont and Tirole (1999).

¹² Of course, this outcome is not certain and in some areas of interconnection, vertical separation could lead to more harmful outcomes than regulation (see, for example, Gans and King, 2001). This potential ambiguity is a major reason why the restructuring of Telstra needs to be fully studied by a comprehensive inquiry.

- How would different forms of separation impact on the operations of telecommunications markets in Australia? In particular, how would they alter Telstra's incentives for anti-competitive behaviour and what regulations could be eliminated as a result of restructuring?

These questions have required resolution since the beginnings of telecommunications reforms in the late 1980s. In our opinion, it is important that these questions are answered through a thorough federal inquiry.

6 References

- Australian Competition and Consumer Commission (2003) *Bundling in Telecommunications Markets: An ACCC Draft Information Paper*, January.
- Armstrong, M; S. Cowan and J. Vickers (1994) *Regulatory Reform: Economic analysis and British Experience*, MIT Press, Cambridge MA.
- Bork, R. (1978), *The Antitrust Paradox: A Policy at War with Itself*, New York: Basic Books.
- de Fontenay, C.C. and J.S. Gans (1999), "Extending Market Power Through Vertical Integration," *Working Paper*, Melbourne Business School.
- de Fontenay, C.C. and J.S. Gans (2002), "Vertical Integration in the Presence of Upstream Competition," *Working Paper*, Melbourne Business School.
- Gans, J.S. and S.P. King (2001), "Mobile Network Competition, Customer Ignorance and Fixed-to-Mobile Call Prices," *Information Economics and Policy*, 12 (4), pp.301-328.
- Hart, O.D. (1995), *Firms, Contracts and Financial Structure*, Oxford University Press: Oxford.
- Hart, O. and J. Tirole (1990), "Vertical Integration and Market Foreclosure," *Brookings Papers on Economic Activity, Microeconomics*, 205-285.
- King, S.P. (2002) "Why privatisation? Lessons from Australia", p.14-25 in *Privatisation: A review of the Australian experience*, Margaret Mead and Glenn Withers (ed), CEDA, Melbourne, 2002.

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- King, S.P. and R. Maddock (2002), "Imputation rules and a vertical price squeeze", *Australian Business Law Review*, 30, 43-60.
- King, S.P. and R. Pitchford (1998) "Privatization in Australia: understanding the incentives in public and private firms", *Australian Economic Review*, 31, 313-328.
- Newbury, D. (1999) *Privatization, restructuring and regulation of network utilities*, MIT Press, Cambridge MA.
- Laffont, J-J. and J. Tirole (1999), *Competition in Telecommunications*, Cambridge: MIT Press.
- Milgrom, P.R. and J. Roberts (1992), *Economics, Organization and Management*, Englewood Cliffs: Prentice-Hall.
- Posner, R.A. (1976), *Antitrust Law An Economic Perspective*, Chicago: University of Chicago Press.
- Rey, P. and J. Tirole (1997), "A Primer on Foreclosure," *Handbook of Industrial Organization*, Vol.III, North Holland: Amsterdam (forthcoming).
- Salop, S.C. and D.T. Scheffman (1983), "Raising Rivals' Costs," *American Economic Review*, 73, pp.267-271.
- Sidak, J.G. and D.F. Spulber (1998), *Deregulatory Takings and the Regulatory Contract: The Transformation of Network Industries in the United States*, 2nd ed., Cambridge University Press.
- Waterman, D. and A.A. Weiss (1993), *Vertical Integration in Cable Television*, MIT Press: Cambridge.