THE EUROPEAN DEBATE ABOUT STRUCTURAL SEPARATION
POSSIBLE IMPLICATIONS FOR AUSTRALIA

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In the lead up to the review of telecommunications regulation in mid 2006, the European Union’s Commissioner for Information Society and Media, Ms Viviane Reding, reignited the debate about the use of structural separation as a remedy for anti-competitive behaviour by incumbents. Despite the Commissioner’s initial enthusiasm for structural separation, following a detailed inquiry the Commission bowed to the weight of industry opinion and opted for the lesser remedy of functional separation in its subsequent October 2007 policy statement. The decision did not recommend that functional separation be mandatory, but that it should be implemented by national regulators at their discretion. Notwithstanding the rejection of structural separation by one of the industry’s most influential policy/regulatory bodies, it remains on the Australian agenda and is at the core of the debate about competition and the planned national fibre to the node network (FTTN). If any group other than Telstra wins the present tender for FTTN, structural separation will be needed to roll out the network within the government’s $4.7 billion budget. Should Telstra win the tender and accept the subsidy offered it may have to engage in structural separation to accommodate the public private partnership (PPP) for the network which is the government’s favoured vehicle to deliver the new network. The article considers the recent debate about structural separation in Europe and considers its utility to the planned deployment of a national fibre to the node network.

INTRODUCTION

Structural separation is an often threatened but never deployed regulatory tool which has drawn periodic attention over the last two decades from regulators and policy makers internationally, following the landmark break up of AT&T in the mid 1980’s. It stands at the extreme of the range of structural options that might be deployed to limit the market power of an incumbent fixed line operator (Cave 2006a, 90) and has found more favour with commentators on regulatory policy than actual practitioners. As Cave and others note, structural separation demands management of network assets through a corporate entity that is distinct from the company that provides retail services. It implies greater complexity, costs and challenges to the co-ordination of network investment than functional separation which is generally marked by divisionalisation and the need for ‘chinese walls’ between network provision and the retailing of services within the one company.

The literature on structural separation suggests that academic thought on its value as regulatory tool remains fairly evenly divided, but there is no such balanced view amongst industry practitioners. Whilst some have argued that structural separation can bring substantial benefits through heightened competition (Crandall and Sidak 2002, 342–352), the consensus view held by policy makers and regulators remains that framed by the OECD in 2003, when it argued the costs of structural separation would outweigh any benefits and that the onus was on the proponents to argue their case. (OECD 2003).

Yet despite an industry consensus against structural separation, which was clearly demonstrated in the 2003/2005 Ofcom review of regulation in the United Kingdom and confirmed by
the weight of opinion expressed in the 2006/2007 European Union regulatory review, structural separation remains an issue for debate in Australia. It was the subject of an aborted parliamentary inquiry in 2002 and has re-emerged as a key issue underpinning the planned national fibre to the node network.

Structural separation lies at the core of proposals by Telstra’s competitors to build a fibre to the node network (FTTN). Under the plans of the Optus-led G9 group (FANOC 2007, 9) much of the local network, effectively from the exchange to the street pillar, would become co-operatively or ‘club’ owned, separating this element of the network from Telstra, with the fibre reconnecting with the copper sub-loop. This ownership structure demands structural separation of a significant part of Telstra’s network, given that the G9 proposal does not envisage FTTN overbuild and would require sub loop unbundling, i.e. competitive access at the street pillar, thus ending Telstra’s ownership of an end-to-end copper local network. Even if Telstra were to win the tender and accept the government’s $4.7 billion subsidy for FTTN in ‘non commercial areas’ it would be obliged to engage in separation as the government is offering the subsidy under a Public Private Partnership (PPP) which implies a separate corporate entity to manage the new network.

This renewed interest in structural separation is marked by a degree of confusion about its precise meaning and application and about the real impacts of its antecedent, namely the AT&T divestiture. Commentators in Australia such as Paul Budde (2008) have argued that there is a widespread trend to structural separation in other markets and that it should be applied to end Telstra’s market dominance. It is argued that structural separation has been applied in the UK, Sweden New Zealand, Italy, Ireland as well as the United States and has been embraced by the EU (Foreman 2008). This reading of the application of structural remedies internationally suggests that there is some confusion about the meaning of structural separation compared to functional/operational separation.

No market has embarked on structural separation. The United Kingdom has implemented functional separation with the creation of OpenReach, the discrete local network division within British Telecom, which now operates at arms length from BT’s retail arm. Similarly, although implementing a three- rather than two-way split, Telecom Corporation New Zealand (TCNZ) is implementing functional separation based on the UK model. As in the UK, there is no new corporate entity managing TCNZ’s network assets and no change in ownership.

Within Europe, Italy would seem to be moving toward the UK model of functional separation; and in Sweden, Telia/Sonera are setting up a network company in settlement of EU competition concerns, having divested mobile and cable businesses following their merger. Separation was not sought by the Swedish regulator which expressed fears in mid 2007 (Post and Telestyrelsen 2007) about the impact separation could have upon investment, noting that:

Moreover, to the extent that the telecom sector can sustain competition from alternative platforms, structural separation could adversely affect incentives for investment in new platforms.

The Telia/Sonera network separation in part parallels the break up of AT&T, which was not structural separation as it is commonly understood today but involved ending AT&T’s vertically integrated monopoly, which extended to the supply of network and terminal equipment. Under the divestiture settlement, which was imposed by the Department of Justice, not the regulator
(the FCC), distinct geographic markets were created and ‘lines of business’ restrictions were imposed which prevented the regional Bell companies from offering long distance service and restricted their entry into so called ‘advanced’ services. Ireland stands as the only market in which full structural separation and subsequent divestiture of retail activities is being considered (McEnaney 2008) but this is being driven by the unique ownership structure of the incumbent eircom rather than any settlement sought by the national regulator Comreg.

THE CONFUSION OVER SEPARATION

Confusion about what form of separation is actually being implemented, in what market and what the implications of structural separation really are, is not confined to the Australian market. Shortly after her appointment in 2006 Viviane Reding, the European Union Commissioner for the Information Society and Media sought to address the European lag in broadband penetration compared to the United States and argued that:

I believe that the policy option of structural separation could answer many of the competition problems that Europe's telecoms markets are still facing today. Perhaps we have to be as radical as regulators were in the USA in the 1980s to make real progress?.. ‘a European way of structural separation’ is certainly a policy option that needs to be discussed intensively in the forthcoming months.

Ms Reding went further in arguing

I note that in the US, the opening up of the telecom monopoly of AT&T started, in 1984, with the most radical intervention a regulator has ever chosen: with the break-up, by means of competition law, of AT&T into the so-called “Baby Bells”. One can certainly discuss the advantages and disadvantages as well as the sustainability of this decision. However, facts speak for themselves. Today, we have in the US a situation of infrastructure competition on the broadband market with two competing infrastructures: While 38% of subscribers have broadband access via DSL technology offered by telecom companies, 55% have broadband access via cable. Consumers therefore have a true choice in the US.

Ms Reding’s link between the AT&T divestiture and the highly competitive nature of the US broadband market may have been misplaced. The strength of the cable sector in the United States in offering broadband competition to traditional telecommunications companies owes more to the asymmetric regulation of cable and telephone companies than to any earlier structural change in the telecommunications industry. Indeed some would argue that the restrictions on lines of business and specifically on the provision of the ‘advanced’ services by the divested Baby Bells retarded development, especially of data services, in the United States (Kahn 2004, 24).

In the debate that followed the Commissioner’s remarks, the European industry indicated that it did not share either her understandings or enthusiasm for structural separation. The incumbents, represented by the European Telecommunication Network Operators (Bartholomew 2007), argued against any form of mandated separation warning of its impacts on network investment, a view shared paradoxically by a number of major competitors (Telenet 2006). Similarly major equipment manufacturers, fearing lower network investment and the consequent loss of
sales, said that structural separation would lessen the incentives and ability to invest in core networks.

Whilst such views may have reflected a degree of self interest, they were confirmed by opinion provided by the Commission’s own staff (EU 2007a) and by consultants engaged by the Commission (EU 2007b) who viewed structural separation, at best, as a measure of last resort. The debate also revealed tensions within the European Commission over the merits of structural separation with the Competition Commissioner, Neelie Kroes, warning against applying structural separation in the telecommunication sector even though it had been mandated in the transport and energy sectors. This reflected the earlier findings of the OECD which had argued for structural separation of energy industries but cautioned about its application in the telecommunications sector.

That the wider European telecommunications community should express concerns about the impact of structural separation was in large part expected, given that the earlier Ofcom regulatory review in the United Kingdom had revealed a clear consensus across most of the UK industry about the possible threat that separation would represent to investment and industry efficiency. In the earlier UK review, the incumbent British Telecom restated its earlier opposition to structural separation, which had been dismissed in 2001 by the then head of retail services Pierre Danon (Danon 2001) who had said:

There are hundreds of things we fix every day because we are the same company and we have the same boss. To change that is madness. It is out of reach by thousands of miles….It would be a disaster for customers and it would mean complete loss of control.

During the review BT’s chairman Sir Christopher Bland (Bland 2004) told shareholders:

The review will cover, within the 21 key strategic questions to be addressed, the possibility of the structural separation of BT. Your company believes this is not in the interests of shareholders, customers or employees, and will argue in favour of a strong and integrated BT.

And as the OECD had done earlier, BT also cautioned that models of separation derived from the utility and transport sectors could not be applied to the telecommunications sector (House of Commons 2005) warning that:

Occasionally some suggest that the separations seen in the gas or electricity industries in the UK provide evidence that BT should also be separated. Nothing could be further from the truth, as recognised by commentators over the years. There is simply no comparison between the essentially simple, one-product industries of gas and electricity supply and the complex, fast-changing communications industry.

Perhaps more significantly even Ofcom (Ofcom 2004) held doubts about full structural separation, noting during the second phase of the review, as they considered the option of functional separation, that:
We believe that [tackling the problem of inequality of access] … can be achieved without the disruption and costs associated with a move towards the structural separation of BT.

But to some commentators even adopting the lesser remedy of functional separation could be problematic, especially in its impact on investment, with Cave subsequently noting (Cave 2006a, 100):

It is important that this remedy be applied proportionately. This requires that the detriments resulting from non-price discrimination exceed the costs of imposing an operational separation remedy, where those costs are not only those of changing the incumbents' business processes, but also of any chilling effect on investment in new assets, by both the incumbent and competitors.

The fear about the threat structural separation poses to investment was not limited to BT or academic commentary, and whilst BT’s major competitor Cable and Wireless had argued for separation, other competitors such as Telewest, a major cable operator which offers telephony and broadband on its network, expressed concerns (Telewest 2005) about the impact that structural separation could have on investment and cautioned against separation.

Given these widespread concerns, structural separation was rejected and Ofcom and BT agreed on a settlement which offered ‘equivalence of access’ to competitors through the creation of an arm’s length local network company subsequently called OpenReach, with access being overseen by an independent panel, the Equality of Access Board, which would oversee the implementation of the BT’s undertakings.

The BT settlement

What is significant about this settlement is that it was essentially a compromise between a powerful regulator holding the unique ability amongst regulators to force structural separation under the Enterprise Act, i.e. a competition law reference, and an equally powerful incumbent that was opposed to any form of separation.

The agreement, which included large regulatory trade offs and most significantly, an end to retail price regulation, was designed to address a specific set of concerns, namely alleged non-price discrimination by BT in the provision of unbundled local loops. Similar concerns about delays in the provisioning of unbundled loops, which had at one point led to the EU taking action under competition law against the Spanish incumbent Telefónica, also underpinned the EU regulatory review.

THE RELEVANCE OF THE EU/UK DEBATES

It is clear from both the UK and EU experiences that separation and ultimately the concept of functional separation was designed to address a specific problem, namely delays in the provision of unbundled local loops. Both the UK remedy (Currie 2006) and the EU’s new policy have the clear intent of facilitating unbundling of the local loop to encourage ADSL-based broadband competition. In essence, structural separation at the local network level, the Loopco model, is a response to a regulatory problem that lies in current network technologies and topographies and...
was designed to encourage entrants’ progress along the ‘ladder of investment’. Given this specific focus, it is questionable whether separation at the local loop has relevance to the regulatory issues that are emerging with Next Generation Networks and more specifically the deployment of fibre in the local network.

The challenges posed by new network technologies have been considered by a number of commentators (Cave 2007, 29; Gruber 2007, 22). Cave, who had earlier expressed doubts about the Loopco model of separation (Cave 2003) has specifically questioned whether the physical unbundling of the local network can be imposed on the new network topologies and means of transmission (Cave 2007, 1) noting that

as new technology gets closer to the end user the conflict between promoting innovative investment and opening up a bottleneck becomes more acute.

The new technologies which Cave specifically identified as challenging ‘traditional’ regulation are fibre to the node and Internet Protocol (IP) based networks, technologies at the core of Next Generation Networks (NGNs). The deployment of NGN and fibre in the local network has lead to regulatory holidays in markets such as the United States and Germany, and these developments reflect the need for a significant shift in regulatory thinking which has been identified in the recent literature (Alleman and Rappoport 2005, 113; Vanberg 2007).

There are now calls for a new regulatory paradigm, better aligned to the complex challenges of Next Generation Networks and the deployment of fibre in the local network (Waverman 2006, 158). These regulatory models are more concerned with access and pricing at the applications layer rather than at the physical network layer. With the possible deployment of fibre under the FTTN proposals and the widespread deployment of NGN into the local network these are the key regulatory issues that now need to be addressed in Australia, not unbundling of the local loop. Given these challenges it would seem that separation at the local network level could engender significant problems when FTTN is deployed, particularly in terms of network investment and co-ordination. With the deployment of FTTN the scope for anti competitive behaviour returns firmly to questions of pricing, or more specifically access to and the pricing, of bitstream products, which could be addressed by the long standing and well understood remedy of accounting separation rather than any form of physical separation of network assets.

FULL NETWORK SEPARATION – THE NETCO MODEL

Proponents of separation are aware of these significant developments and argue that the challenge of drawing a ‘demarcation line’ in the age of NGN, when traditional boundaries between local and core networks will dissolve, can be answered by separation of the full network. Babcock and Brown Capital Management (BCM), an Australian listed private equity fund who are now majority owners of the Irish incumbent eircom, argue (Topfer 2007) that full structural separation of the network from retail services, the so called Netco model, can overcome problems associated with the Loopco model and would encourage investment and the deployment of NGN and fibre in the last mile.

Although separation has not been on the Irish regulator Comreg’s agenda, BCM have raised the issue of full structural separation and the subsequent divestiture of eircom’s retail division with both Comreg and the Irish government. Whilst there is no public detail on quite how the
planned split would work, Comreg have engaged consultants to consider the implications of separation. BCM argue that structural separation would leave the network company standing as a regulated utility, able to attract cheaper capital and operate with higher levels of gearing, and with a clear focus on network investment and development.

But as critics of private equity ownership of telecommunications companies have pointed out (Melody 2007, 9), companies under private equity ownership such as eircom have excessive levels of debt, with debt now comprising 80% of capital, and it is questionable whether the resultant Netco could borrow more for investment. eircom has also seen a massive fall in capital expenditure under private equity ownership with capital expenditure falling from €700 million p.a. earlier in the decade to €300 million in 2007. In the interim, despite its standing as the Celtic Tiger with growth rates outstripping most European economies, Ireland lags the OECD average in broadband penetration (Comreg Quarterly Key Data Report December 2007) and needs significant investment in the network to rollout NGN and fibre to the node.

eircom’s falling capital investment does not seem to accord with BCM’s vision for NGN and broadband deployment, and the problems of network investment have been discussed with the Irish Government, with BCM seeking a €150 million (A$ 260 million) injection of government funds to underpin Netco. Yet whilst BCM may claim that heightened investment is the objective of structural separation, others point to a simpler ambition which accords with the typical private equity mandate, which is to realise short term gain through large scale sales of assets, so called ‘unlocking of value’. An analysis of the planned split undertaken by Rothchilds on behalf of BCM’s partners in eircom, the Employees Share Ownership Trust (ESOT) which owns the remaining 35% of the company, suggests that the sale of the retail arm would generate a €800 million (A$ 1400 million) windfall for BCM and ESOT (Topfer 2007). BCM and its related parties would receive A$930 million from this windfall, allowing Babcock and Brown to exit with a significant profit from an investment which otherwise, as an integrated operator, has debts larger than its asset value.

But whatever the underlying motive, BCM continue to argue that splitting the company would be an innovative approach to securing future network investment, notwithstanding the commonly held concerns that structural separation may act as a disincentive to investment and that because of the inefficiencies it could induce it might result in higher prices to end users of services.

SEPARATION, INVESTMENT AND EFFICIENCY

Concerns about investment and economic efficiency under separation, which are grounded in the extensive economic theory of the firm and the benefits of vertical integration (Coase 1937), were most recently canvassed in Telstra’s response to the access undertaking which the G9 Group lodged with the Australian Competition and Consumer Commission. The paper, commissioned from Charles River Associates (Ergas 2007), pointed to the dangers of double marginalisation and opportunistic behaviour, which could result in ‘hold ups’ in investment. The paper noted:

In pricing, ‘double marginalisation’ can occur where non-integrated vertically-related firms each set a mark-up over marginal cost, resulting in an aggregate mark-up that exceeds the mark-up of a profit-maximising vertically integrated firm. (Ergas 2007, 2).
In simple terms the aggregate profit sought by two companies will be larger than the profit sought by one vertically integrated firm. On the impacts of separation on investment the paper argued:

The incentives to invest more broadly can be impeded by ‘hold-up’ effects as investments which require coordination between upstream and downstream firms are delayed and undermined by strategic bargaining between the parties. Here too, the greater the extent to which the benefits of investments in one layer flow to others, the more severe will be the misalignment in investment incentives.

Finally, the scope for an industry to adapt to rapid change is compromised by vertical separation where close coordination between network, service and application levels is required for adjustment to occur. These difficulties are aggravated where decision-making structures make adjustment conditional on costly bargaining processes. (Ergas 2007, 2).

As noted, such concerns are widely held and must be answered by the proponents of full network separation. In seeking to address such concerns, eircom, on behalf of BCM, commissioned research from the University of Warwick (Cave and Doyle 2007) which argued the problems of investment incentives could be answered by contracts between the network wholesaler and service providers, whilst double marginalisation could be dealt with by regulation. Cave and Doyle argued that contracts in industries such as the manufacturing of personal computers served as models for long term contracts between network wholesalers and service providers, which would then secure network investment. The paper also suggested that relationships in other industries, such as those between airlines and airport operators, indicated that complex contracts could ‘take up the tension’ and compensate for the loss of vertical efficiencies and limit the scope for opportunistic behaviour. Finally they noted that double marginalisation could be dealt with by regulation.

Cave and Doyle (2007) appear to take little account of the very different investment horizon and complex product mix in the telecommunications industry compared to the personal computer industry, where product life cycles and consequent pay back periods on investment are a fraction of those associated with telecommunications industry and especially ‘risky’ investments such as fibre to the node. Nor, in view of the evidence given by Qantas on conflict over airport access in Australia, which has been marked by opportunistic behaviour by airport owners (Qantas 2006), do Cave and Doyle’s other example of ‘complex’ contracting suggest that agreement on investment can be readily achieved.

**CONCLUSION**

The threat that separation may pose to investment and the additional costs and inefficiencies it may generate are not merely theoretical, and must be considered in any proposal for FTTN. Although there is no model of full structural separation to guide the debate in Australia, it is accepted that problems engendered by functional separation do stand as a guide to the issues that may be confronted with structural separation.
As outlined, the critical issue is investment, and the experience in the United Kingdom with OpenReach suggests that separation can readily generate a ‘chilling’ effect on investment. British Telecom is one of the few major operators that have no plans for fibre deployment in the local network, despite their commitment to core network NGN. Functional separation has heightened the investment dilemma faced by all incumbents over renewing the local loop and British Telecom’s OpenReach CEO, Steve Robertson, recently said:

The real problem, however, is what to do about upgrading the residential broadband network. The economics simply do not work unless BT Retail and rivals such as Sky, Tiscali and TalkTalk agree to make use of the new technology and pay for it. In essence, the decision about whether to put fibre in is not just a BT decision….Our model says we do not take the whole value chain, we do make it available to everybody else and that means the financial case is even more demanding. (Robertson 2007).

Telstra has clearly indicated it will not invest unless it receives a return from FTTN commensurate with the risk. Separation, which limits the benefits and returns a network operator can generate from investments such as FTTN, can act as a substantial disincentive, and it is unlikely to encourage Telstra to invest. Consequently the threat separation poses to investment must be carefully considered by the expert panel as they consider any proposal for FTTN deployment.

ENDNOTES
2 Author’s Interview with ESOT trustees Dublin, February 2008.

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