

# Shareholder risks associated with the National Broadband Network

AN ASSESSMENT OF POTENTIAL VALUE DESTRUCTIVE SCENARIOS  
FOR TELSTRA CORPORATION AND A STRATEGY FOR RISK MITIGATION

OCTOBER 2008

**ACTU**  
CORPORATE RESEARCH UNIT

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Corporate governance and performance is a union issue. Management practices and decisions affect the lives of employees in myriad ways. Poor practices and decisions can result in job losses, higher staff turnover and increased pressure on employees and their families as well as potential destruction of shareholder value. The Corporate Research Unit operates as a research engine within the Australian Council of Trade Unions which explores these issues. These issues affect not only the jobs and living standards of employees, but the broader interests of our 2 million members as consumers, citizens and superannuation fund members.

The analysis and views contained within this report do not constitute financial advice. Investors should seek independent and professional advice when making investment decisions.

The information contained herein is current as at 15 October 2008.



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# Introduction



**‘Telstra is playing a dangerous game of brinkmanship.’**



**‘One estimate suggests that \$11.9 billion in market value is at risk.’**

The current crisis in the global financial markets has transformed not only the economic situation but also the political environment. In Australia, corporate accountability and the question of effective regulation is now front and centre in the minds of the public and of the Government. There is broad support for government action to stimulate investment and insulate the economy from the dangers of a global slowdown or recession. In response, the Government is promising “the single largest infrastructure program in the history of the commonwealth” to meet these challenges.<sup>1</sup>

It is in this context that the proposed National Broadband Network (NBN), which will be one of the largest infrastructure projects in Australian history, is now situated. Business leaders see this project as “crucial” to the future of the Australian economy.<sup>2</sup>

Telstra is bidding for the tender to build the NBN and, as Australia’s largest telecommunications company, should be the front runner for the contract. However, there are serious risks associated with this tender; *risks we believe are being exacerbated by the approach of Telstra*. One estimate suggests that up to \$11.9 billion in market value could be wiped from the company were the most serious risk to eventuate (see Section 1).

The senior leadership of Telstra is, we believe, playing a dangerous game of brinkmanship with regard to the tender process. Continual threats to walk away, a promise not to bid without certain conditions being met and an uncompromising public stand on key issues related to the project are, we would argue, placing the long term interests of shareholders at risk. In particular, threatening to “walk away” from the process entails two risks:

- 1] That another company or consortium is awarded the contract, with an exclusive license to build the network.<sup>3</sup>
- 2] That the Government is forced to take action to ensure the viability of the project, action which is deemed to be in the “national interest”, but which would not necessarily be in the interests of Telstra Corporation.

We explore the first of these risks in Section 1, which is supplemented by the appendices, which show that Telstra actually has no viable growth option in the instance that this outcome obtains.

In terms of the second risk, we believe that the government has options with regard to this project, which will ensure that it goes ahead. In particular the government may:

- a] **Vest the ACCC with stronger enforcement powers.** Currently the ACCC plays more of an arbitral role rather than an enforcing role with regard to disputes over pricing and access to the network. The ACCC could be given broader powers to set prices and spot-check to ensure compliance. Telstra could essentially be given the choice – take a stronger ACCC with an NBN, or take a stronger ACCC without an NBN.

**b] Legislate for further separation of the company's business units.**

While the government thus far has avoided this route, the current crisis in the global economy has strengthened support for regulation and government interventions to create accountability for consumers and the public.

**c] Divesting Telstra of its ownership in Foxtel.** Senator Conroy publicly discussed this possibility in the run-up to the election last year.<sup>4</sup>

The senior leadership team at Telstra have a reputation for being tough negotiators. In Section 2 we will question the past efficacy of their preferred approach. We believe that the risks identified here are exacerbated by the current approach, which we describe as litigious and combative.

In the current environment, we believe there is a heightened risk that the Government may go down one of the above paths if it does not get the outcome it wants from its tender process and perceives Telstra to be an obstacle to its efforts.

In this context, we note that two of the most important figures on the leadership team – the Chairman of the Board and the Chief Executive Officer – have thus far been two of the most vocal in stating the company's determination to walk away from the project under certain circumstances. In two years time, the contract of the latter and the tenure of the former will have expired. We expect that the Chief Operations Officer and a number of other executives will also have departed.

Whether or not the senior leadership team of Telstra is around to see the building of the NBN or not, we doubt that the Government's desire to build the network and complete other projects will have expired by then. The danger we see is that the Government has its eyes fixed further into the future than the end date of the contracts of Telstra's leadership team. This could have significant ramifications for the company and we believe it brings the question of succession planning urgently to the fore.

We are concerned that the board is underestimating the risks to the company and to shareholders and that there is a lack of incentive provided to the senior leadership team to think in the long term interests of the company. Indeed, this year Dean Paatsch, director of Risk Metrics Australia described Sol Trujillo's \$13.4 million remuneration package as "like a guaranteed bonus".<sup>5</sup>

By our analysis, the NBN project is a central consideration when evaluating the company's long term interests. Were the most serious risks outlined in this report to be realised, the senior managers would still be able to fly home having gained handsome financial benefits. Shareholders would have no such prospects and be left to pick up the pieces.

While it is impossible for all of the risks associated with this project to be eliminated, we believe that a constructive first step the company could take to mitigate risk would be to adopt a cooperative rather than combative approach toward all stakeholders in the proposed National Broadband Network.



**'The Government has its eyes fixed further into the future than the end dates of the contracts of Telstra's senior leadership team.'**





# Section 1:

## The risk of non participation

### **Précis:**

Telstra have implied that there are no competing bidders that actually have the ability to build the network; therefore:

- They may doubt the Government's ability to award to the contract to anyone other than Telstra; as a result of this
- They have publicly taken an uncompromising stand on key issues relating to the NBN build, which may undermine the natural alignment of interests between themselves and government
- This misalignment, in turn, may make the competing bids more attractive to government.

### **Potential impact:**

Analysts at Merrill Lynch and Citigroup recently identified non participation in the building of the National Broadband Network as the biggest financial risk to Telstra Corporation in the future.<sup>6</sup> Citigroup have estimated a value erosion of \$11.9 billion from the company – a loss of almost \$1 per share.

The key outcomes which would lead to such a massive erosion of shareholder value in this instance are:

- A loss of current wholesale customers to the NBN operator;
- A significant loss of retail customers who will be unwilling or unable to move across to Telstra's HFC or Next G networks;
- A significant loss of government contracts; and
- The increased competitive pressures of operating without incumbent advantages

### **Isn't Telstra the logical choice to build the NBN?**

There is a natural alignment of interests between Telstra Corporation and the Federal Government when it comes to the NBN. The latter have pledged to the Australian community that they will facilitate and contribute to the building of a national fibre-to-the-node (FTTN) network reaching 98% of the population; the former are the only company that have an existing national fixed line network to which a fibre-to-the-node network is a logical upgrade.

As such, Telstra should be “in the box seat” to win the tender and complete the build. However, there *is* a risk that Telstra may lose the tender for the NBN. By our analysis, this potentially catastrophic risk is not being mitigated. On the contrary, we would argue that they are increasing the prospect of a competing bidder winning the tender.

*Note that we are not speculating on the probability of this outcome, just making the argument that the risk of losing the tender is higher than it otherwise would have been.*

Telstra has clearly indicated that it believes itself to be the only company capable of undertaking the NBN build.<sup>7</sup> They recently went so far as to say that the other leading bidder, the Terria consortium, is “simply not serious about building the NBN”.<sup>8</sup>

It is perhaps because of this estimation of their competitors that Telstra senior management have taken an uncompromising stand on key issues to do with the roll-out of the network.

For example, Telstra have suggested that they will not participate in building the network unless they receive a return of 18 per cent or more.<sup>9</sup> Such a figure, however, is likely in practice to lead to end user prices “higher than either the Labor Government or the regulator currently consider acceptable”.<sup>10</sup> It may also be the case that such a rate of return actually contradicts the Commonwealth’s stated objectives of providing “low access prices” for competitors and “affordable prices” for consumers.<sup>11</sup>

Another issue relates to the form which the Government’s financial contribution takes. While other forms of investment will be considered when evaluating the bids, the government has previously indicated its preference for an equity investment.<sup>12</sup> Telstra, however, has rejected outright such a partnership, with Sol Trujillo reportedly “mocking it as some sort of ‘kumbaya, holding hands’ theory”.<sup>13</sup>

In normal circumstances, of course, it would be quite rational when making huge investment decisions to try to ensure the absolute highest rate of return possible and to secure as much control as possible over the decisions concerning that investment.

However, the National Broadband Network is actually a key priority of the Government, especially in the current context of an urgent push for “nation building” infrastructure development. The fact that Telstra seems unwilling to compromise is, in our view, undermining the natural alignment of interests between themselves and the Government.

We leave it to the other bidders themselves to show whether or not they can gain finance and put together viable bids to build the network in a way that meets the Government’s evaluation criteria. We would think, however, that an assumption that *only* Telstra can win the contract is dangerous. It should be noted that others have been positioning themselves in such a way as to be more attractive to the Government’s wants.

For example, in July Maha Krishnapillai (Optus director of government and corporate affairs) stated that a 12% return on investment – 33% less than Telstra’s claim – would be adequate<sup>14</sup>, while Michael Egan (Chairman of the Terria consortium) has indicated that their funding model includes a significant equity investment on the part of government<sup>15</sup> and a commitment to prioritising a regional roll-out.

So, somewhat paradoxically, pushing for higher returns and greater control in our view increases the risk of diminishing shareholder value. Competing bids, should they eventuate, may seem better able to deliver on some of the key government objectives, such as affordability of service, as they are not, for example, demanding the same high levels of return.

We see few instances where the senior leadership of the company have acknowledged the seriousness of this risk to the company and to shareholders. In fact, Telstra have on several occasions simply indicated that there are



**‘Telstra... is in our view undermining the natural alignment of interests between themselves and government.’**



**‘Somewhat paradoxically, pushing for higher returns and greater control in our view increases the risk of diminishing shareholder value.’**

options open to the company in the instance they don't win (or walk away from) the NBN tender. Sol Trujillo has confidently stated that “we are interested in building the broadband network... but if it doesn't happen our business plan isn't contingent on it”.<sup>16</sup>

However, we would argue that if there is another viable bid for the contract, the company cannot simply walk away from this project without serious consequences for shareholder value. The above estimates of Citigroup paint a grim picture. By our research there seem to be no options available to Telstra in terms maintaining its growth targets in the event that it sits and watches a rival consortia build the network (see appendix).

### **Conclusion**

In August Alan Kohler opined that:

**It all comes down to the NBN. If Telstra loses, there will have to be another transformation much more drastic than Trujillo's. And the greatest indictment of Trujillo's management... is the amazing fact that Telstra might actually lose the NBN tender. It should never have got itself into that position.**<sup>17</sup>

We agree that Telstra senior management have put the company in a position that it need not be in at the present moment. A key concern of government in this project is to deliver on their stated objectives of providing low access prices for competitors and affordable prices for consumers. These objectives are considered to be in the “national interest”.

Yet is it definitively out of the question that the “national interest” can be served by another entity? When competing bidders are coming out with proposals that more clearly align with the Government's objectives — while Telstra are seen to be inflexible with regard to their own priorities — the risks surely can't be anything other than heightened.

We would argue that the more demanding the company is, the more uncompromising it appears to be around certain conditions of the contract being non-negotiable, the greater the risk that the contract may be awarded to another entity.





## Section 2: Participation risks

### Précis:

- From their public statements, we infer that the Government, the Australian Competition and Consumer Commission (ACCC) and Telstra's competitors are all of the opinion that there is not genuine equivalence in the Telecommunications sector;
- We believe that there is a perception that Telstra is able to act in an anti-competitive way as a result of its incumbent status;
- Telstra not only deny the concerns of these parties, they behave in a way that is combative and litigious;
- This approach heightens any concerns and creates suspicion of the company's motives; which
- Creates a pressure for action to be taken against Telstra in aid of creating a so-called "level playing field"

### Introduction

Winning the tender to build and operate the National Broadband Network is of clear importance to the future direction of Telstra Corporation. However, a successful bid does not come without serious risk to shareholder value. The key risks in this scenario are associated with the Federal Government's requirement that the new network be genuinely "open access". That is, that competing companies be able to access the network to provide services to end users, without discrimination and at equivalent prices.<sup>18</sup>

Concretely, the risks Telstra faces in this situation are twofold. The first is the spectre of further forced separation of Telstra's business units to preclude any favourable dealings toward its retail division. The second concerns the regulatory environment that will enforce an "open access" NBN.

Currently, Telstra's competitors are of the consensus that genuine equivalence is not afforded to access seekers on the current network, as Telstra's wholesale division is alleged to be able to favour its retail division in the provision of services to the detriment of competition and to the benefit of Telstra's bottom line.<sup>19</sup>

As will be noted below, both Graeme Samuel, Chairman of the Australian Competition and Consumer Commission, and the Federal Government also appear to be of the opinion that genuine equivalence does not exist in the current environment.

It must be stressed that the purpose of our research is neither to verify nor deny the existence or otherwise of uncompetitive conduct in the telecommunications industry. We simply point out that influential decision makers appear to be of the opinion that there is anti-competitive conduct.

In the face of the stated concerns of competitors, the ACCC and government, Telstra has taken quite a litigious and combative approach. For example, Graeme Samuel noted earlier this year that:

The ACCC is currently involved in 47 legal actions initiated by Telstra. This impressive list includes:



**'Influential decision makers appear to be of the opinion that there is anti-competitive conduct.'**



**‘Telstra senior management's approach... is heightening the pressure for action to be taken against the company.’**

- 1 appeal to the Full Federal court;
- 12 ADJR actions in the Federal court on ULLS and LSS arbitration determinations;
- 1 Federal court ADJR action regarding administration of retail price controls; and
- 33 applications to the Administrative Appeals Tribunal for review of ACCC decisions on Freedom of Information requests.

The ACCC fully respects the rights of parties to seek review of ACCC decisions; however, this level of activity does make one wonder what is motivating it all.<sup>20</sup>

One of Telstra’s own internal memos to staff earlier explained that “We are taking the view that so long as we have claims that are arguable and will not be ‘laughed out of court’, we should run them, even if prospects of success are not great.”<sup>21</sup>

Greg Bundy, Executive Chairman of corporate advisory firm InterFinancial last year described the strategy of Telstra as “very high-risk” and “unprecedented in Australian and American corporate history”.<sup>22</sup> Whether or not one thinks this approach is justified, *the reality is that it has not worked in the past* (see “Regulatory Risks” below). In the current context, where there is urgency on the part of government to act to ensure the stability of the economy and to insulate against the threat of a downturn, we see more, rather than less power accruing to the Commonwealth when it comes to issues such as regulation and infrastructure investment.

Senator Conroy, Minister for Broadband, Communications and the Digital Economy has previously indicated a willingness to act to ensure conditions are ripe for a competitive landscape, stating “Graeme Samuel and the ACCC need some teeth; at the moment they have no teeth” and that “we need greater powers for the ACCC for divestiture”.<sup>23</sup>

We believe that the litigious and combative approach is actually creating risks that would not have otherwise materialised here. If it were the case that the government, the ACCC and Telstra’s competitors felt that there was no marketplace discrimination, we wonder whether they would be pushing — almost as one — for a new set of measures to enforce open access.

Telstra’s combative and litigious approach is, we would argue, entrenching the opinions of other stakeholders in the industry and heightening the pressure for action to be taken against the company.

### **The risk of Separation**

*“No one in their right mind would go down the separation path, which lies somewhere between crazy and stupid”*

— PHIL BURGESS, OUTGOING GROUP MANAGING DIRECTOR FOR PUBLIC POLICY & COMMUNICATIONS<sup>24</sup>

*“Labor opposed the current operational separation regime that applies to Telstra because we regarded it as ineffective. Now in Government, we have not changed our view. We are prepared to carefully look at structural arrangements similar to those adopted in countries such as UK, NZ and Singapore. The regulatory arrangements and structures around the National Broadband Network are a central consideration in this process”*

— SENATOR STEPHEN CONROY, MINISTER FOR BROADBAND, COMMUNICATIONS AND THE DIGITAL ECONOMY<sup>25</sup>

Since it was privatised, Telstra has been subject to three rounds of increasingly strict separation of its business units. Accounting separation was first imposed in 2001, but the particular regime was deemed to be inadequate and was strengthened in 2003. By 2005 accounting separation had been deemed a failure and operational separation was imposed and implemented the following year:

Under this operational separation regime, there are a number of requirements Telstra must fulfill in order that a non-discriminatory competitive environment may be facilitated, including the following provisions:

**Telstra must maintain separate retail, wholesale and key network services business units. The wholesale business unit must be located in premises that are secure and separate from retail business units and staff members may not be employed by more than one business unit.**

**Telstra's retail business units must have no control over, or responsibility for, the marketing, contracting or supply of services to wholesale customers...**

**The operational separation framework also requires that Telstra commit to key performance service indicators which measure the equivalence of delivery of services to other telecommunications companies. These indicators cover aspects of service delivery such as timeliness of service activation and fault repair, billing and access to exchanges.<sup>26</sup>**

Telstra's competitors have been arguing that this regime hasn't worked and Telstra is able to act in an anti-competitive way. The accusations range from the constant disputation of access terms and conditions, the setting of wholesale prices for broadband services at or above its own retail prices, artificially capping the amount of equipment allowable in exchanges and arbitrarily delaying the time it takes to connect end users to competitor services.<sup>27</sup>

As indicated by Senator Conroy's comments above, the Government is also of the opinion that the current regime is inadequate. It has clearly indicated that it is in favour of an even stricter separation regime between the company's business units than currently exists today.

We would argue that the company has brought this situation on itself. Competitors and the regulator have spoken, and the Government has been pressured to respond.


There is a real risk of value destruction for shareholders because of this. The direct costs of implementation and the associated efficiency losses in areas such as IT and R&D may be considerable depending on the extent of further separation and the way it is carried out.

Merrill Lynch analysts estimate a potential 30 cents per share decline in valuation "on the imposition of an aggressive separation regime"<sup>28</sup> (such as exists between British Telecom and Openreach in the UK). The associated costs of implementation of such a regime are estimated at \$200 million initially "with incremental running costs of \$30 million into the future", resulting in a further 4 cents per share decline in valuation.<sup>29</sup>

While they believe that the imposition of an aggressive separation regime is unlikely to occur, we can find no evidence that the senior management team's combative and litigious approach will help create the most favourable outcome



**'The Government is of the opinion that the current separation regime is inadequate.'**



**‘The more Telstra goes it alone... the more pressure there will be for higher levels of forced company separation.’**

for the company in this regard. By simply denying the concerns of others, it would seem that the concerns become entrenched and the pressure for action against the company remains or is even increased.

However, there may be a way forward. Morgan Stanley has previously suggested that separation could increase the company’s market value by 20 per cent.<sup>30</sup> While Citigroup have estimated a series of destructive outcomes, ranging from \$3.1 billion to \$7.4 billion in the event Telstra participates in a joint venture with the Government (an outcome which implies a fairly strict level of separation) there is an instance where this arrangement is not value destructive. This is where Telstra co-operates with the Government in working out a compromise structure for the NBN operating company.

In this scenario, the value *growth* is estimated at \$3.1 billion. However, given Telstra’s past approach, they estimate the likelihood of Telstra cooperating to bring this scenario about at only 1%.<sup>31</sup> Indeed, the likelihood appears to be negligible, with Telstra Chief Financial Officer John Stanhope clearly reiterating in October that “there is a 0% chance” of this outcome<sup>32</sup>, while Sol Trujillo further branded the Government’s contemplation of further separation as “ludicrous in the extreme”.<sup>33</sup>

We have already questioned why, when interests are so naturally aligned, Telstra appears so uncompromising. We point out now that, given the consensus on Telstra’s “anti-competitive conduct”, it seems *there may be a greater risk of further separation and value destruction in the instance that Telstra actually gets what it wants*, namely the lack of a government equity stake. We suggest that the more Telstra “goes it alone” and rubbishes collaboration as “kumbaya”, the more pressure there will be for higher levels of forced company separation in order to satisfy the Government, the competitors and the regulator.

In the mean time there do seem to be options which point toward value creation that the company is simply refusing to embrace. Without quantifying the likelihood of such an event, we would wonder whether, if the Government considers that an integrated Telstra is becoming an obstacle to the creation of the NBN, it may feel forced to take action to further separate the company to ensure that there exists an entity that actually has incentive to build the network in the first place.

### **Regulatory Risks**

*“We continue to receive complaints of conduct that suggest that the objective of equivalence... is not being achieved”*

— GRAEME SAMUEL, CHAIRMAN, ACCC, 2008<sup>34</sup>

Apart from the risk of separation, there are risks associated with the pricing and regulatory regime that will govern the new network. Some of the key issues regarding regulation and pricing that will be decided upon include:

- The price re-set mechanism for determining access prices;
- De-averaged vs. Averaged wholesale pricing;
- The powers of enforcement given to the ACCC or some other regulatory body;
- The level of regulation of individual products / services over the network

The decisions on all of these issues will be made, at least in part, with regard to effects on competition and will significantly impact the operating company.

The regulatory environment will ultimately determine the “size of the pie” that will frame the limits of the revenues that are achievable for the NBN operator – particularly if that operator is vertically integrated and competing in the retail market. All of these decisions may impact on the extent of investment risk and the projected average revenue per user (ARPU) over the network – a key measure of profitability.

If there is a continued concern regarding “anti-competitive conduct”, the Government may make decisions which are fundamentally designed to either militate against or even compensate for such behaviour. For example:

- A de-averaged pricing regime (similar to the current de-averaged regime surrounding access to Telstra’s copper loop) may allow for competitors to gain access to the network at below average cost in metropolitan areas, thereby making it more costly for the operator to fund the network as a whole;
- A price-reset mechanism designed to mitigate against the gaining of monopoly profits will undermine certainty of return and place downside risk on the company, without allowing for upside benefits<sup>35</sup>;
- An increased number of regulated products / services to guarantee fair play may diminish the flexibility to experiment in price setting in order to find the point of greatest demand

JP Morgan and Citigroup analysts describe the regulatory risk for Telstra as “high” and “extremely high”.<sup>36</sup> Ian Martin of ABN AMRO considers a significantly adjusted regulatory regime a “key downside risk”.<sup>37</sup> JP Morgan analysts “see nothing but bad news surrounding the NBN, with government interference the primary concern...”<sup>38</sup>

We are concerned that senior management’s approach to these issues is increasing the likelihood of negative outcomes for shareholders. What is Telstra’s ability to argue for and gain a set of regulatory outcomes that are in the company’s best interest, when there appears to be little or no confidence that the company will act in a way that actually promotes the goal of equivalence?

Over the last 3 years the combative and litigious approach of the senior management team has resulted in few regulatory victories. In particular, as Michael Sainsbury pointed out in *The Australian*:

*Despite the high-profile campaign, which included anti-government campaigning in last year’s federal election and a High Court challenge to the foundation of government regulations, Telstra has had no wins against the Australian Competition and Consumer Commission...*


*[They have] failed twice to negotiate a deal with the ACCC and the federal government that would see Telstra build a national fibre-to-the-node network. That project is now out to tender.*<sup>39</sup>

Independent telecommunications analyst Paul Budde has described Telstra’s behaviour as being characterised by “abusive language and behaviour towards ministers, regulators and its largest customers”.<sup>40</sup> It seems to us that continuing this approach actually exacerbates the regulatory risks, as it diminishes confidence that the company will act in a way that will not inhibit competition. Similar to the question of further separation, we believe that, the more Telstra takes a hard-line position on its needs, the more pressure there



**‘JP Morgan analysts “see nothing but bad news surrounding the NBN.”’**





**‘Non-participation  
may not be  
a viable  
voluntary option.’**

will be for a regulatory regime which allays the concerns of the Government, the competitors and the regulator.

Further, even if it could be argued that this approach was appropriate in the past, it certainly doesn't fit with the changed environment in which the company currently finds itself. In previous instances it was Telstra that proposed building a FTTN network. As such, they were able to walk away when the regulatory outcome did not fit with their objectives. As Sol Trujillo related to employees of the company in 2007, "the ACCC's unwillingness to accept our costs and provide appropriate investment safeguards caused us to terminate our negotiations with the regulator".<sup>41</sup>

However, at that time Telstra was able to terminate discussions and walk away because no other company was going to build such a network, so the situation remained "business as usual" and it was a legitimate to speak of "other plans in the ready".

That situation has now dramatically changed. It is now the Federal Government that is proposing, and jointly funding, a national FTTN network, rather than it simply being a single company proposal. The key difference is that *the NBN is a key priority of Government*. Were it to eventuate that Telstra was the only viable bidder for the contract and chose yet again to walk away, the Government has options available to it that may bring Telstra back to the table. For example, the Government could grant more power to the ACCC to preside over the access regime as it currently exists or legislate to change the regulatory environment in such a way that Telstra was forced into building the NBN under conditions that they considered a "lesser evil" to the new status quo.

As noted above, non-participation is not a viable voluntary option for the company in the case that there is a viable competing bid. As such it may be the case that, if the Government is absolutely determined to get the network built, Telstra will simply have to accept the regulatory regime that is decided upon – this may be a regime similar to that which Telstra has previously rejected.

Given the perception that Telstra acts in ways that may be regarded as anti-competitive or uncooperative, we believe the likelihood is that the outcome is more likely to tip toward a regulatory environment granting less flexibility than may have otherwise been the case, with greater enforcement powers given to the ACCC (or another body).

However, this need not be the case. We see good reason for Telstra to propose a set of measures which allow itself the required business flexibility *and* allay the worst fears of other stakeholders. If they were to do so, there would be less "need" for other, possibly more restrictive measures that otherwise might ensue.



# Conclusion

*“The real telling point is that Telstra has failed not just in terms of its political campaign but in its appeals on ACCC decisions and in its attempts with the Government to get any deals on changes to regulation... Far from making any real progress in its campaign, Telstra appears to be losing ground. They are on a hiding to nothing on this.”*

— MARK McDONNELL, ANALYST, BBY<sup>42</sup>

Telstra’s most recent end of year financial results noted that “both S&P and Moody’s continue to hold Telstra on a “negative outlook” with major factors being the uncertain regulatory environment and NBN process, technological and competitive pressures and company transformation risks”.<sup>43</sup>

We believe that the risk factors associated with the regulatory environment and NBN process are being unnecessarily exacerbated. On the one hand, their approach toward the tender increases the risk that they will lose the bid. The natural alignment of interests between the Government and Telstra with regard to the National Broadband Network is, we believe, undermined by the demands and conduct of the senior leadership team.

On the other hand, Telstra’s approach toward other interested parties increases the risk of an otherwise unnecessarily tight compliance regime and further forced separation. There is a perception, resulting from the conduct of Telstra, that the interests of competition, the industry and consumers, will be strengthened by taking action to thwart the company’s current practices.

Whether or not any of the perceptions and opinions of competitors, the Government or of the ACCC are accurate has not been discussed here. We are fundamentally concerned with the risks that are created or exacerbated by Telstra’s behaviour, both generally and in response to the perceptions of others.

We have suggested that the risks to the company are greater than they otherwise would have been, had the company taken a less litigious and combative approach. We also believe that a factor contributing to what we consider short sighted behaviour is the probability that key figures in Telstra Corporation will not be around to see through the project, even in the event the company wins the contract.

We do note, however, that the risks could still be minimised through Telstra taking a different approach to government, to the ACCC and to competitors. If Telstra senior management were to now embark on a truly collaborative and cooperative path in the endeavour to build Australia’s National Broadband Network, there is still the possibility that the risks to shareholder value can be minimised.

While it is impossible for all of the risks associated with this project to be eliminated, we believe that a constructive first step the company could take to mitigate risk would be to adopt a cooperative rather than combative approach. This could well lead to a situation whereby less, rather than more regulation is required, whereby there is deemed to be less need for further forced separation. However, this outcome is unlikely to materialise so long as there is a consensus that Telstra will not “play ball”.

This consensus is likely to remain so long as the Telstra senior leadership team seem unwilling to compromise on key issues and so long as there is the impression that they will act to stifle competition in the market.



**‘This consensus is likely to remain so long as Telstra senior management seem unwilling to compromise on key issues...’**



# Appendices

*“We spend our time thinking about options... our job, my job, is to make sure that we have plenty of options for shareholders to get benefits however life evolves”*

— SOL TRUJILLO<sup>44</sup>

Telstra have on several occasions indicated that there are options open to the company in the instance they don't win (or walk away from) the NBN tender. In particular Telstra have suggested an upgrade and extension of their HFC network, a continued focus on their NextG wireless network and an expansion into overseas markets.

However, in the instance that another entity is capable of building the network, we would argue that the company cannot simply walk away from this project without serious consequences for shareholder value. We discuss below the shortfalls of each of these suggested “options” in turn.

## **APPENDIX 1: Developing and extending the HFC network**

*“If we chose... to roll out a footprint that was associated with HFC and Docis 3.0 we could do it at equal to or less [cost] than FTTN.”*

— SOL TRUJILLO<sup>45</sup>

Telstra currently has a Hybrid fibre-coaxial (HFC) network, which is a broadband network combining optical fibre and coaxial cable (the “cable” in cable TV). This network currently passes an estimated 2.7 million homes and delivers internet, TV and telephony services.

At present Telstra's HFC network is capable of delivering download speeds of up to 30 Megabits per second (Mbps)<sup>46</sup> to some high-end users in Melbourne and Sydney. This, combined with the ability of HFC networks to potentially offer download speeds of up to 160Mbps (using the “Docis 3.0”<sup>47</sup> standard that Trujillo referred to above) seems impressive. However, HFC technology has serious deficiencies which limit its ability to be considered a serious broadband platform capable of competing with the NBN in the long term and possibly even in the short to medium term.

### **Deficiency #1 – Structure**

The first deficiency is that HFC networks are asymmetric in structure, with bandwidth capacity limited in one direction. This basically means that they are heavily geared toward delivering one-way traffic – traditionally this has been pay TV services – with restrictions on sending signals the other way. In technical terms there are restrictions on “uploading” (sending information) as compared with “downloading” (receiving information).

As an illustration of what this means, picture a dual-carriageway road which has four lanes of traffic moving in one direction but only one lane moving in the opposite direction. In this situation, traffic flow is obviously severely restricted in one direction (the “upload”). So it is that Telstra's fastest HFC plan currently provides for 1Mbps uploading, which is around 3% of the maximum possible download speed.

The fact that HFC is geared heavily to downloading is likely to restrict the use of emerging applications which require significant uploading capacities like two way video conferencing on shared networks, or the transfer of large files for media applications.

VDSL<sup>48</sup> technology, which is likely to be deployed over the FTTN network, does not share this limitation.

### Deficiency #2 – Capacity

The second limitation of this platform is that the total available bandwidth has to be shared by multiple users, with the result that “the actual bandwidth obtained can be lower due to excessive loading of the system by other users”.<sup>49</sup> That is, the more people using the network in a particular area at a particular time, the slower the speeds become for each individual subscriber.

For example, with 1 user on the network, 160Mbps may be achievable on a “Docis 3.0” HFC network; but with 20 users on the network, the minimum average speed drops to 8Mbps, while with 250 users it drops to 1Mbps.<sup>50</sup> Again, to use a traffic analogy, it is similar to the difference between peak hour and midnight on a major arterial road. While you are likely to get a smooth run into the city at midnight due to a lack of other road users, during peak hour, as the traffic volume increases the speed of the individual vehicles decreases as the road becomes clogged with users. Again, this limitation does not exist with VDSL technology, which can deliver up to 50Mbps with multiple users.<sup>51</sup>

### Deficiency #3 – Not “future proof”

The technical limitations of HFC networks become stark when compared with a point-to-point optic fibre network. This is a network design which is one step further than the currently proposed fibre-to-the-node network (FTTN). Under a FTTN, optical fibre extends to street cabinets (nodes), where it is connected to the existing copper wires that travel the final distance (800 metres or so) to individual premises. Under a point-to-point fibre network, individual fibres replace the individual copper lines from the node to the premise (and the node is no longer necessary). This is the direction all advanced networks are heading, and will be the logical extension of the currently proposed network. Indeed, some major CBD located businesses in Australia have already been using fibre networks for years, with over 30,000 km of fibre having been laid in major cities as far back as 2001.<sup>52</sup>

In a network of this variety, end user speeds are not affected by an increasing number of users on the network. In such a future network individual customers could potentially upgrade from, for example, a 100Mbps connection to 10Gbps simply by changing the lasers at each end of the connection. Laboratory testing is already producing speeds of up to 25Tbps over fibre.<sup>53</sup>

It is for these reasons that the OECD concludes that “HFC networks will on average not appeal to businesses with over ten people”. They further state that “HFC networks might offer households enough bandwidth for the coming years, but if the growth in traffic and bandwidth-intensive applications increases as in recent years [they will not be] future proof”.<sup>54</sup> They will become an antiquated platform at some time in the future.

The question that needs to be asked here is, will this growth in traffic and bandwidth requirements continue? The answer seems to be unequivocally “yes”. Cisco Systems predicts that “Video on Demand (VoD), IP television (IPTV) and Internet TV will account for nearly 90 percent of all consumer IP traffic in 2012”, with global IP traffic increasing by a factor of 6 between 2007 and 2012.<sup>55</sup> In other words, the future and worth of a broadband network is going to lie in its ability to deliver these in-demand services. HFC will fail when put the test of mass use as “video-on-Demand and HDTV will be limited to a maximum amount of streams”<sup>56</sup>.

As Patrick Knorr, head of Sunflower Broadband, a cable operator based in the US said of cable's bandwidth limitations in this context, "it's definitely a real problem; there's definitely a storm coming".<sup>57</sup>

The only way in which HFC could really be considered future proof is the extent to which the cable is fully replaced by fibre to create an all fibre network. However, as noted (endnote #2), in the event that the Government spends multiple billions of dollars to assist in the development of the NBN and there is a wholesale only operating company, we imagine it unlikely that a licence be granted for a second fibre network anytime soon.

The final issue that arises in contemplating HFC as a competitive option is the Australia-specific market problem. Despite the existence of competing HFC networks (the other is owned by Optus), HFC internet connections represent less than 13% market share of the total internet market, a figure which has stayed fairly constant over the last two years. Compare this with DSL-based technologies which have grown from 40% to 54% market share<sup>58</sup> (70% of the broadband market). So thus far, neither Telstra nor Optus, after around a decade of offerings, have been unable to lure a substantial amount of the market to HFC broadband.

These issues of current customer base and future technological limitations, when combined, lead us to two conclusions. Firstly, Telstra's HFC network at present doesn't have a customer base capable of securing anywhere near the sorts of revenue Telstra currently enjoys through operating the existing copper network. Secondly, it seems unlikely that it ever will.

## **APPENDIX 2: Wireless broadband**

Wireless broadband looks set to play an increasingly important role in the telecommunications industry. Over its NextG network, Telstra already allows theoretical download speeds of over 14Mbps.

Over the six months to June 30 2008, the number of wireless broadband subscriptions in Australia almost doubled to over 809,000, which represents around 14% of the total broadband market (11% of the total internet market).<sup>59</sup> This rapid uptake was, however, most likely driven by a 60% reduction in prices over the previous 12 months – a discounting pace which is unlikely to continue.<sup>60</sup>

In particular the deployment of Long Term Evolution (LTE) technology – a higher standard based on the same sort of technology as Telstra's NextG network – promises download speeds of up to 200Mbps,<sup>61</sup> with the first commercial devices supporting peak downlink speeds of up to 100Mbps.

However, it is unlikely that wireless will actually prove to be an alternative to a fixed fibre network. LTE is still reportedly 2 to 3 years away from being deployed<sup>62</sup> and there are, again, a number of limitations which are likely to preclude wireless broadband from forming more than a complimentary niche market.

### **Deficiency #1 – Speed**

The first deficiency is that over radio frequencies, the maximum possible speed that data can be carried over the network is limited. Over Telstra's NextG network, despite the network running at 14.4Mbps, Telstra admits that "typical speeds" range between 550kbps and 3Mbps, "bursting up to 6Mbps".<sup>63</sup>

In the short term this sort of performance is unlikely to be able to compete with a fixed line network running speeds of up to 50Mbps. In the longer term, as we have seen, fibre network speeds will be unassailable.



## Deficiency #2 – Capacity

When it comes to wireless technology in the real world, “the maximum transmission speed and distance... are purely theoretical. Transmission speeds depend on the number of users”.<sup>64</sup> It has been reported that this will mean that download speeds will amount to possibly one third of advertised speeds.<sup>65</sup> Again, like HFC, this will create inconsistencies in service and possible “traffic jams” during peak times.

This deficiency inherent in wireless was highlighted by the recent example of Optus suspending new “Wireless Fusion” broadband services just one month after initially promoting them. One of the factors in this decision is said to be high demand leading to the clogging of the Optus 3G network.<sup>66</sup> In order to ensure “optimal service to our customers”, Optus actually needed to limit the number of high use customers on the network to prevent capacity problems.

## Deficiency #3 – Inconsistencies

Further, while wireless does offer the convenience of mobility in coverage, other factors also limit the results that can be obtained by end users. A subscriber’s distance from a base station, the built environment (e.g. whether a subscriber is in the line of sight of a base station) and atmospheric influences all impact the reliability of the platform, depending on the radio frequency used.

In terms of the market as a whole, Telecommunications analyst Paul Budde suggests that, while “the market for wireless broadband is too small to enable any meaningful predictions...Fixed wireless [as distinct from mobile wireless,<sup>67</sup> which was included in the previous ABS figures] broadband will perhaps be able to capture around 10% of the total fixed broadband market”.<sup>68</sup>

## APPENDIX 3: Other technologies?

In the short term there appear to be, at best, serious limitations to other technology platforms competing with the NBN. In the long term, research suggests that there is simply not an existing technology capable of competing with optic-fibre networks, which will be the logical progression of the FTTN network in terms of performance:

**There are a myriad of competing technologies which can provide the bandwidth required to deliver broadband services, but each technology has its limits in terms of bandwidth, reliability, cost or coverage. Optical fibre offers almost limitless bandwidth capabilities, has excellent reliability and is becoming increasingly economical to install.<sup>69</sup>**

The NBN will be “future proof” in a way that other platforms are not.

With this in mind, and the fact that 76% of all internet connections in Australia run directly over the Customer Access Network — which will become part of the NBN — it seems incredibly unlikely that Telstra will be able to pursue “options” that would allow them to effectively compete with an alternative NBN operator within Australia, especially in the long term.

In any realistic scenario, Telstra, while no doubt pursuing HFC and wireless customers, would have no alternative in Australia but to become a service retailer over a wholesale NBN like every other competitor in order to attempt to maintain market share. However, it would lose all the incumbent advantages it currently enjoys and its position as the dominant company in the telecommunications sector would likely be threatened.

## APPENDIX 4: Expansion into foreign markets

*“There’s no stopping Asia”*

— SOL TRUJILLO<sup>70</sup>

The telecommunications market, like most markets, is a global one. Certainly the Asian market is presenting itself as a giant, with China already the world’s biggest market in terms of subscriber numbers and India continuing to grow at breakneck speed, increasing for example, the number of mobile phone subscribers from 13.3 million in 2003 to 228 million in June this year.<sup>71</sup>

Telstra, however, has had limited success in the international arena. After what could be considered a string of failed overseas ventures in the 1990s the last major foray the company made was a \$3.5 billion outlay to enter a joint venture with a Pacific Century Cyberworks, a Hong Kong company, in 2000. The deal created Reach Ltd, which was the largest international carrier of internet and voice data in Asia, and CSL, a mobile carrier in Hong Kong. Neither of these was considered a success and just three years later Telstra was forced to write down the value of Reach from around \$1 billion to zero.

While CSL (in which Telstra now has a 76.4% stake) is showing signs of development, its contribution to Telstra Group’s total earnings before interest and tax in 2008 was \$13 million out of \$6.3 billion.<sup>72</sup>

The major acquisitions since Reach have been in advertising, with the 2006 acquisition of a 51 percent stake in one of China’s real estate internet sites (SouFun) for US\$254 million and the June 2008 acquisitions of controlling stakes in two further businesses, Norstar Media and Autohome/PCPop.

However, whatever the growth prospects of these companies may be, they are minnows compared with Telstra as a whole and can not be considered capable of delivering backbone growth for the Company. SouFun, the biggest acquisition, contributed only \$88 million in revenue for the year ending 30 June 2008.

Indeed, total revenue from overseas operations in 2007/08 was \$1.94 billion — less than 8% of total revenues.<sup>73</sup> It seems that, to make significant headway into overseas markets would require significant multi-billion dollar investments in unfamiliar territory.

Given Telstra’s caution in this area over the last five years, it seems unlikely that this is a realistic possibility. BBY analyst Mark McDonnell has said of Telstra’s recent Asian acquisitions “Frankly, I think this will always be pretty much at the margins of what they are doing”.<sup>74</sup>

So while it may be the case that the Asian market has been booming for close to a decade, there are obviously factors at work that have thus far stopped Telstra from seriously engaging in that market. We can only wonder how the company will be willing and able to dramatically expand into a booming market in a year or two when they haven’t been willing or able up to this point.

## Endnotes

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- <sup>67</sup> Mobile Wireless refers to portable broadband technologies – USB modems for laptops, mobile phone internet and the like. Fixed wireless refers to a home or business based broadband connection that is accessed through wireless technology.
- <sup>68</sup> Paul Budde and Phil Harpur, *2008 Australia – Mobile and Wireless Broadband*, Paul Budde Communications Pty Ltd., April 2008 (available at: [http://www.budde.com.au/buddereports/4534/2008\\_Australia\\_-\\_Mobile\\_and\\_Wireless\\_Broadband.aspx](http://www.budde.com.au/buddereports/4534/2008_Australia_-_Mobile_and_Wireless_Broadband.aspx))
- <sup>69</sup> Corning Incorporated, *Op. Cit.*, p. 2
- <sup>70</sup> Matt O'Sullivan, "Trujillo's Trojan Horse", *Sydney Morning Herald*, 4 September 2008, p. 30
- <sup>71</sup> Figure from Indian Department of Telecommunications (available at: <http://www.dot.gov.in/osp/Brochure/Brochure.htm>)
- <sup>72</sup> Telstra full Year Results and Operations Review, June 2008, p. 11 (available at: [http://www.telstra.com.au/abouttelstra/investor/tls618\\_financialresults08.pdf](http://www.telstra.com.au/abouttelstra/investor/tls618_financialresults08.pdf))
- <sup>73</sup> Telstra Corporation Preliminary final report, June 30 2008, p. 2 (available at: [http://www.telstra.com.au/abouttelstra/investor/tls618\\_financialresults08.pdf](http://www.telstra.com.au/abouttelstra/investor/tls618_financialresults08.pdf))
- <sup>74</sup> Matt O'Sullivan, "Trujillo's Trojan Horse", p. 30







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