NBN Regulatory Review
Department of Communications
GPO Box 2154
Canberra ACT 2601

Email: NBNReview@communications.gov.au

Friday, 14 March 2014

Submission on the Broadband Regulatory Issues

Our submission to the NBN Regulatory Review Panel on Broadband Regulatory Issues is attached. CIMB is an Asia-Pacific focussed investment bank and Asean region retail bank headquartered in Malaysia. CIMB has a presence in 18 countries in the Asia-Pacific region and major global financial centres. Our wholesale banking division encompasses investment banking, corporate banking, treasury & markets, and group strategy & strategic investments. In 2012 CIMB acquired the Australian and several other Asia-Pacific operations of RBS (previously ABN Amro) to create the largest Asia-Pacific investment bank.

Under these brands we have provided Australian telecommunications sector and company investment research coverage including analysis and investment advice for over 20 years to institutional investors in Australia, the Asian region and globally.

As ABN Amro we were a joint lead manager for the Telstra IPO in 1997, Telstra 2 in 1999 and the 2006 Telstra 3 sell down of its majority stake by the Howard Government. In this role we told institutional investors in Australia and around the world and, through ABN Amro Morgans, retail investors around Australia that they could invest with confidence given the rigour and substance of regulatory processes that then applied and the valuation the ACCC applied to Telstra's fixed line network for regulatory purposes. These attributes of the regulated competition model were over-turned between 2008 and 2011 as the ACCC back-flipped on its regulatory approach and network valuation in order to support the NBN and help achieve its unevaluated preference for structural separation. In addition to the direct loses incurred this conduct has left a concern by many investors about the ACCC's ongoing role and conduct in regulation of telecommunications access.

We consider the private sector including Australia's capital markets should be in the prime position to drive investment in broadband whichever NBN market model is adopted by government. We think this should be the case whether the government continues with the current model of the NBN rolling out service on a national wholesale basis or adopts a model with a greater role for infrastructure competition. Given developments in the fixed and mobile access technologies there is likely to be increasing bypass pressure on the NBN whatever market model is adopted.

However the role that private capital markets could make to this process has been undermined by the approach taken by the ACCC to the NBN and access regulation since 2008. Whichever NBN model is taken up and pursued by the government the contribution by the private sector would be more productive with a workable adherence to the capital efficiency limb of access regulation objectives. We think this requires that telecommunications access regulation be managed by a specialist infrastructure regulator anchored in capital markets rather than primarily focussed on consumer protection.

Ian Martin
Director,
Regional Head of Telecommunications Research

Submission to the Panel conducting a Cost-Benefit Analysis and Review of Regulatory Arrangements for the National Broadband Network

March 2014

Ian Martin

Regional Head of Telecommunications Research

CIMB Securities Australia Limited

The NBN and Telecommunications Regulation:
Key issues from the perspective of equity capital markets

CIMB has a keen interest in an efficient telecommunications sector and workable approach to a National Broadband Network. We have been a leading advisor to institutional investors on the sector for twenty years (prior to 2011 as RBS and ABN Amro). As ABN Amro we were a lead adviser on the sale of Telstra including the IPO in 1997, Telstra 2 in 1999 and the Howard Government sell down of its majority stake in 2006.

Our submission includes insights and analysis where we think our experience and expertise may assist the Commission in meeting its terms of reference along the lines outlined in the framing paper. We think our clients and investors generally benefit when policy decisions are based on sound analysis. In particular we support the use of cost benefit analysis for the NBN and similar analysis for related industry structure considerations. The taxpayer may have been saved considerable expense and ongoing risk if this basic and well-established tool had been employed from the early days of broadband policy.

In addition to the general policy issues facing the panel we wish to draw attention to the role of the ACCC through 2008 to 2011 in the establishment of the NBN, its subsequent role in establishing regulation supportive of the NBN and its ongoing role in regulating fixed line services.

Institutional investors incurred great cost in the process that lead to the establishment of the NBN in particular through poorly considered policy alterations and opportunistic implementation of regulation to help bring about the NBN. Many investors made significant commitments to the sector in the 2006 T3 sell down giving specific consideration to well established and supported regulatory processes only to see these opportunistically overturned between 2008 and 2011. As a result there is a widespread distrust among institutional investors in Australia, and to some extent offshore, over the role played by the ACCC in the implementation of the NBN and supporting regulation. There is an ongoing risk held by institutional investors given the ACCC's ongoing role in regulation of the sector and its lack of independence in this role.

Institutional investors in Australian capital markets have a good deal of expertise in assessing industry trends, developments in demand and cost and capital spend pressures that may impact investment returns. But there is no way for any investor to weigh the prospect of regulatory backflips over access prices or opportunistic write-downs in asset values. There is great value in having well established processes for such regulation. We think the lack of evaluation of the NBN went hand in hand with the lack of evaluation and consideration of regulatory changes between 2008 and 2011.

While institutional investors are sufficiently well placed to take a view after the event and respond accordingly there are well over one million retail investors in the sector who bore considerable losses in the period in question and have little understanding of why and how this occurred.

While our submission includes insights and analysis across the range of issues indicated in the framing paper our over-riding concern is for a better regulatory process across the sector with a certain level of concern for capital efficiency as well as competition. This has been a key objective of the telecommunications access regime from the outset but is all but ignored by the ACCC. We think effective regulation requires a certain regard for capital efficiency as well as competition and is best realised by a specialist regulator anchored in capital markets. We contend the ACCC is the wrong regulatory agency to administer telecommunications specific regulation.

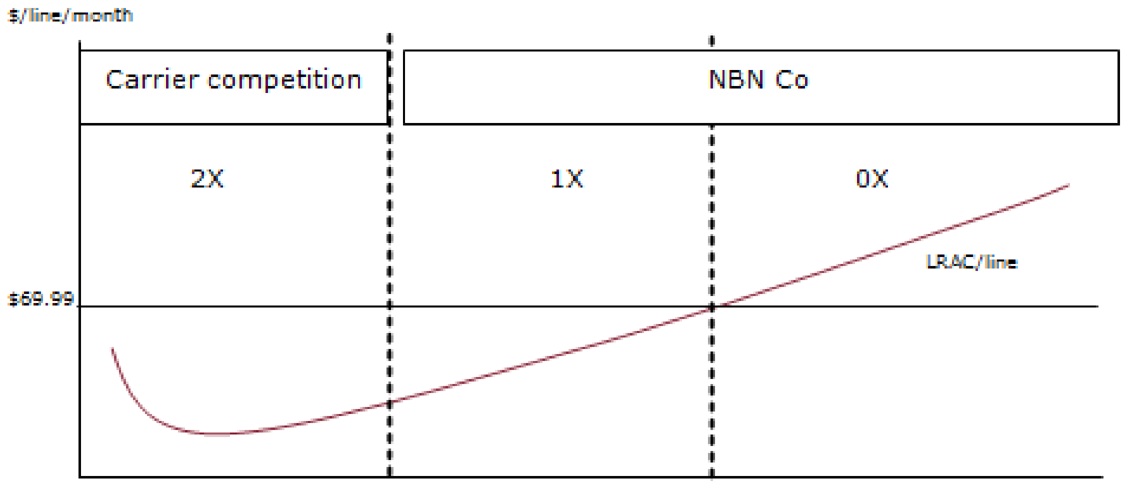
An indicative model of the broadband market

In addressing the issues raised in the framing paper we draw from a simple model of the sector as outlined in the chart below. The model ranks fixed access lines in order of increasing cost (beyond a minimum scale) compared with a uniform average monthly revenue. Simplifications including the averaging of joint cost and revenue may affect specific outcomes but help illustrate some general points relevant to the panel.

Much of the fixed telecommunications market segment will bear more than one profitable integrated carrier. This includes CBD areas and areas with many high value corporate or business users. For instance, these areas have been carved out of the footprint effectively reserved for NBN Co. We think in the right competition and regulatory framework this footprint extends well beyond the 50% mark towards 70% or 80% in terms of premises by density. Putting regulated access to one side the contestable footprint is likely to expand with further network development (which lowers average cost to serve at a given level of service) and market demand (which expands revenue opportunities). (These are 2X areas in the chart below.)

There is a significant part of the market where revenue is likely to be above cost for an integrated carrier but where the revenue potential relative to cost is insufficient to support more than one carrier (1X areas). There is a part of the market where costs are likely to remain above likely revenue (0X areas). If there was no regulation of access or retail prices, we think these 0X areas would be a small portion of the market.

Chart 1 : Traditional network diseconomies of distance and population density



Note: Cost and revenue per line ranked in order of decreasing contribution (after certain scale is achieved)
Source: CIMB

In this conceptual framework we consider there are two broad approaches to the overall structure of the broadband market. Either:

- Open infrastructure competition where competitive carriers are free to enter all contestable areas leaving NBN Co to supply a service in 1X and 0X areas, on a wholesale or integrated basis.
- Reserving the bulk of the carrier market to NBN Co so that it supplies access service across that range on a wholesale-only basis.

In either case the boundaries within which NBN Co operates are likely to reduce over time. In either case the contestable footprint is likely to expand with further network development (which lowers average cost to serve at a given level of service) and market demand (which expands revenue opportunities). In the open competition case carriers are likely to continue to push out the boundary of contested markets as cost and revenue drivers change and as they seek scale.

In the case where the bulk of the market is reserved for NBN Co a similar pattern of change will tend to occur anyway. More obviously contestable carrier market segments including corporate and mobile were carved out of the market segment reserved to NBN Co. There are evidently good economic reasons to continue to extract the economic benefits from carrier competition in these market segments. Why limit those benefits just to these segments?

We think the market will inevitably try to extract them to a significant extent anyway. Developments in wireless technology are likely to expand the opportunities to bypass NBN Co in any case. NBN Co's effective footprint is likely to shrink however much the government tries to preserve it.

A similar situation occurred in the 1980s when those firms with investment in private networks tried to bypass Telecom, the then incumbent, by offering capacity and carrier service to third parties.

Frustrated as they may have been then, those developments eventually gave way to full carrier competition. The main difference now is that there are many more opportunities and technology options to bypass the reserve carrier, and many more companies capable of doing it. The implication is that there are significant economic benefits to be realised by allowing this to occur. Why constrain them?

Why constrain the economic benefits of carrier competition?

The main reasons seem to be:

- to preserve the financial case for NBN Co in the context of (a) some form of price equivalence between high cost and lower cost areas, and (b) the obligation on it to extend service into areas where costs are greater than likely wholesale revenue given price constraints.
- That Telstra is such a well-placed and well-focussed incumbent that it is able to limit the opportunities for competitive infrastructure.

Notwithstanding short term implementation issues as NBN Co is established we can't see that either of these is a good reason to constrain the economic benefits of carrier competition. If subsidy of high cost areas is considered sufficiently important it should be done in a way that does not constrain competitive benefits. Isn't that the point of the competitive neutrality principle? If that principle is undermined here, won't it be undermined elsewhere in the economy. One of our concerns is that the same failure of policy and regulatory evaluation derails the mobile carrier market and the pace of market driven wireless developments as it has done in the fixed line segment.

Even in the case where the subsidy is such that it can't be readily funded from the broader tax base there is no reason to arbitrarily try to constrain the economic benefits of carrier competition. Even in the case of an industry cross subsidy, such as a USO-style carrier levy, it should be left to the carriers to decide where entry makes sense bearing in mind the level of cross subsidy they may be required to bear with each incremental customer. A more workable approach may be a combination of direct budget funding and industry levy.

In general, for 2X areas which will sustain carrier competition, if the community is better off because of that competition (which is surely axiomatic), then it is better able to support a cross subsidy through industry levy than through a hidden subsidy embedded in NBN's operating costs and revenue.

In the case where Telstra may be able to limit the opportunities for competitive infrastructure, that too is better dealt with directly than through constraining the whole set of opportunities that might arise from carrier competition. While Telstra has advantages of incumbency and has well exploited these it is also good at what it does as an integrated carrier. Why simply sever the total benefits the community can derive from its expertise when carrier competition can be supported by more targeted and practical constraints?

We think these misguided structural approaches have arisen due to a significant miscalculation by the ACCC of the benefits of structural separation; at least it could be called a miscalculation if had actually done a calculation of the costs and benefits of its preferred structural model. Our assertion here is that the ACCC agreed to back the previous Government's expensive FTTP NBN model in order to achieve its own preferred structural outcome. It backed and propped up an NBN model that was unevaluated in order to achieve structural separation which was similarly unevaluated. One bad policy popular in some circles but unevaluated propping up another bad policy, popular in some circles but also unevaluated.

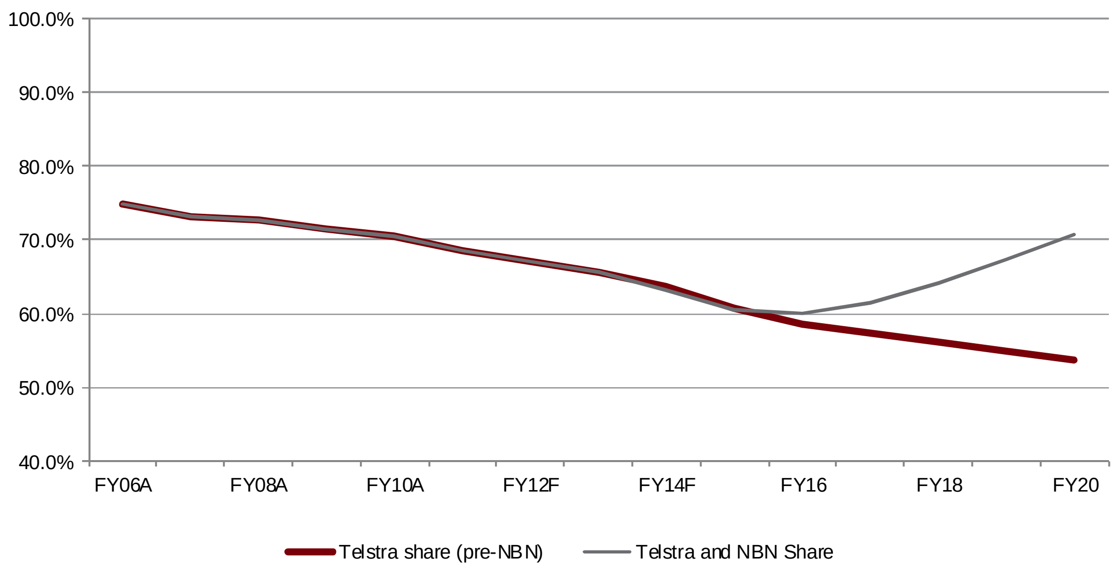
Telstra was losing carrier market share at a steady rate prior to the NBN

In its advice to the NBN Expert Panel in January 2009, as part of its argument in favour of structural separation, the ACCC outlined numerous occasions where Telstra favoured its own retail operations over those of competitors. These examples vary in impact and no doubt are frustrating for competitors. However, none of them justifies a structural change of the type supported by the ACCC when considered against the costs of such a change including ending the material benefit of carrier competition. Such infringements are better off dealt with directly.

None was so significant, for instance, that it had a material impact on competition in terms of market share or price. Telstra's fixed market share had declined steadily through the prior decade mainly as a result of effective access regulation (figure 2). All the issues raised by the ACCC could be dealt and mostly have been dealt with through competition provisions and the legal process, albeit with delay and cost. The kind of undertakings Telstra made as part of the interim structural separation arrangements are also a more cost effective way to limit such activities without throwing out the substance of carrier competition.

Such examples may be frustrating for competitors, but they didn't stop competitors from gaining share, building scale and earning returns on invested capital several times greater than the level available to investors in regulated infrastructure. On our estimate the fixed network market share of non-Telstra-non-NBN Co carriers is likely to fall as NBN Co progresses. (By the way, these estimates are drawn from the ACMA's record of eligible revenue, that is net carrier revenue collected for the purpose of levying the USO cross-subsidy. After we initially reported that this indicated ongoing decline in Telstra's market share the details were removed form subsequent ACMA releases.) It seems a Kafkaesque outcome that an NBN model implemented to encourage greater competition of the form preferred by the ACCC should lead, as seems likely, to less (of the more meaningful) carrier competition.

Figure 2: Incumbent share of fixed network (net) carrier market



SOURCES: Telstra share (pre-NBN) based on ACMA eligible revenue reports, extrapolated from FY10 based on CIMB's forecasts of TLS net fixed network revenue. Telstra and NBN Co share based on CIMB TLS forecast fixed network revenue net of carrier payments including payments to NBN Co and NBN 2012 Corporate Plan forecasts adjusted by CIMB for delay.

Investors shouldn't stand in the way of meaningful reform. Even if there are individual negative impacts in the short term, true reform raises the overall level of wealth in the community and expands the long term opportunities for investors. Equally, reform that has such a significant impact on investment should be shown to be worthwhile. As far as we can see, the ACCC never bothered to demonstrate that any benefits from its preferred structural arrangements would be greater than the costs imposed.

On the face of it, the ACCC's preferred structural change doesn't necessarily change the behavioural outcomes it worries about in the case of Telstra. The risk is it merely transfers them to a government monopoly that doesn't face the market and, being government-owned, is harder for the ACCC to regulate effectively. In our view, the benefits of this preferred structural change, if any, are minor, while the potential costs are enormous. Industry players that support structural change may benefit through transfer effects and through undermining the efficiency of the most substantial player in the industry, but in net terms these transfers don't add up to a net gain across all users or the wider community.

ACCC reinterprets Hilmer on structural reform

Our contention is that the ACCC was so driven to achieve structural separation of Telstra that it seized the opportunity to support the previous government's expensive and unevaluated FTTP NBN in order to achieve it. In its consideration of Telstra's structural separation undertaking it selectively quoted from the Hilmer Inquiry to support its views.

> "In particular, the Hilmer Report noted that structural reforms may be the appropriate response to vertical integration in order to promote effective competition: 'The introduction of effective competition into markets traditionally supplied by public monopolies will often require more than the removal of regulatory restrictions on competition. Where the incumbent firm has developed into an integrated monopoly during its period of protection from competition, structural reforms may be required to dismantle excessive market power and increase the contestability of the market.' " (ACCC Final SSU Assessment 2012, p 135; quoting the Hilmer Report on National Competition Policy).

In fact the Hilmer Report post-dated the 1990 Review of Ownership and Structural Arrangements (ROSA) which considered and rejected structural separation of Telecom, and Hilmer drew from ROSA:

> "From a competition policy perspective, questions about the most appropriate structure for public monopolies arise in two main contexts. First, there is the concern that reforms involving the introduction of competition to former monopoly markets should result in effective competition, with minimal need for ongoing regulatory intervention. Pro-competitive reforms of this kind have already been undertaken in the Australian telecommunications industry …" (Hilmer Report on National Competition Policy, 1993, p 215).

Hilmer considered that structural separation may aid competition, particularly in the circumstance "where a public monopoly is being privatised" (Hilmer Review p 215). He considered that in the case of vertical integration:

> "the coincidence of cross-subsidy concerns and potential incentives to misuse control over access to the natural monopoly element are considered sufficient to warrant a presumption in favour of separation, although that can be rebutted by appropriate evidence." (Hilmer 1993, p 230).

Importantly, he recognised that there are costs and benefits of separation and considered the evidence should be weighed up. His recommendation, made three times in three different circumstances, was that:

> "there should be a <u>rigorous, open and independent</u> study of the costs and benefits of separating any natural monopoly elements from potentially competitive activities." (Hilmer 1993, p 230, our emphasis for the attention of the ACCC).

As ABN Amro we sold Telstra 3 for the Howard Government in 2006 in large part on the basis that Telstra was a full service integrated telco. We noted to investors around the world the 2005 assessment of the Productivity Commission that:

> "the potential benefits of full vertical separation of Telstra's wholesale and retail arms are not sufficiently large to justify the efficiency and transaction costs that would be entailed." ('National Competition Policy Reforms', PC 2005, p 245).

We noted similar assessments of that period from the OECD, Ofcom and others, for example:

> The OECD said compared with doubtful benefits "the costs of this severe measure are more certain and substantial … even in cases (where it may be desirable), separation cannot be

> justified without careful cost-benefit analysis and a review of competition in the market." (OECD Working Paper November 2003, 'The benefits and costs of structural separation of the local loop'.)

It may well be that the case for separation has developed since 2006, particularly given the evolution of IP networks. Investors having committed capital deserve an evaluation rather than regulatory fiat. The failure to provide one, we contend, shows a disregard by the ACCC for efficient investment and a disrespect for investors. The ACCC's mind-set carries ongoing risk for investors.

We are where we are, but where to from here?

We are where we are with structural separation as achieved by the NBN such as it is and Telstra's undertaking. However, investors have ongoing concerns about the ACCC's role in the sector, given its actions to date have been partial and poorly based, and are concerned that it has ambitions for further damaging structural change. Current Chairman Rod Sims has championed structural change as the most important of regulatory issues and an opportunity to 'correct' previous mistakes.

> "Those of us championing microeconomic reform back then (the late 1980s) had many successes …
>
> "In telecommunications we lost some big debates as the Telecom unions, in particular, were very powerful.
>
> "The most important debate was trying to separate Telecom's copper network from its retail activities. We succeeded with structural separation in electricity, but lost in telecommunications.
>
> "Just imagine how different the communications industry would look today had we won that debate. Telstra would never have been vertically integrated and, I believe, our industry would be more competitive than it is today." Rod Sims, ACCC Chairman, Speech, 11 April 2013

Yes, just imagine if the NBN model had got up 20 years ago…

One of the most fundamental propositions in economics is that sellers should face buyers. In doing so directly suppliers are better able to assess what aspects of supply are valued by users and make more informed decisions about how these are most efficiently supplied. And users are better placed to assess what features of supply they may value and how best to acquire them. The interaction of demand and supply in ensuring resources are applied to their most valuable use is possibly the most fundamental proposition in economics.

The matching process of this interaction is all the more difficult for long dated supply decisions such as network investments where the range of benefits may not fully arise until many periods into the future and supply decisions have significant long term costs and require significant investment commitment.

Separation puts a barrier between these assessments of demand and the matching supply. It's potentially such an intrusive and economically damaging barrier that an economically aware policy process and regulator should give the implications significant consideration before going ahead. It's not an academic issue: the FTTP NBN, as a case in point, is the result of a non-market assertion of demand and supply. In the case of the NBN there is no market process of economic matching of benefit and cost. Indeed, prior to the establishment of this panel there was no non-market process.

Twenty years ago there was a similar case for a national fibre access network put to the then government, while Telstra was still in government ownership. The BTCE assessed the cost at around A$40bn in c1994 terms (from memory) and the government quickly rejected it. Would this have been the outcome if the policy and regulatory processes and priorities that applied in 2009 and 2010 had applied in 1994? If so, what would have been the long term impact? A trail of economic destruction and enduring financial losses in our view.

Instead, as Telstra was progressively exposed to market forces including through privatisation it increasingly made more efficient investment decisions in our view. In the period after the 1997 IPO demand and supply factors in the fixed line sector evolved rapidly with growing demand for Internet and broadband, and higher and higher broadband speed. As an integrated company Telstra was well placed to assess demand in its most fundamental form and match the increase in demand with the incremental resources needed each year to expand the capacity. Over the period from 1997 it expanded capacity incrementally from a 64kbps predominantly voice service to an 8-20 Mbps broadband service in most areas by 2009. We contend this was a relatively efficient process in large part as Telstra was an integrated company and as such better able to match demand and supply as each side evolved.

Left to its own devices (but subject to effective access regulation) it would have continued with incremental expansion and most of the community would now have access to a high speed broadband service in the 50Mbps range.

There is a view that in the period from late 2005 to 2009 Telstra 'held out' on upgrading capacity, and it certainly sought some regulatory reassurance before it expanded ADSL2+ coverage. In our view, it wasn't in a position to hold out indefinitely on a substantial upgrade to fixed line capacity (say to VDSL) given its obligations to shareholders and the declining value of its fixed line network as voice revenue reduced. This is an assessment we marketed around the world in 2007 and 2008 although we note the realisation of it depends on effective access regulation.

The risk in the alternative model preferred by the ACCC is that decoupled from end user demand a structurally separated carrier may have over-invested in capacity too early (much as in the FTTP NBN model). The chances of misaligned investment in a structurally separated model seem quite high. Prior to investment the range of RSPs that face end users have an incentive to drive up the prospect of demand for high speed service. If the investment occurs they stand to benefit if demand evolves. If it doesn't they bear none of the risks of low levels of utilisation. Subsequent to investment their interest is to drive down access prices; they have no interest in the investment risk carried by and returns required by investors in the underlying infrastructure.

For its part, a structurally separated carrier decoupled from demand risks being captured by the 'vision' offered by the latest technology and invest in it without paying heed to underlying demand trends. Its notable that the Rudd Government invited private sector participation in its FTTP NBN in April 2009. However, none of the advocates of FTTP contributed capital despite their belief in the vision.

Where was the ACCC when it was needed to guide efficient use of, and investment in, telecommunications infrastructure?

These issues of demand and supply in long term fixed line infrastructure investment seem so fundamental to us that they should have at least raised eyebrow at the ACCC. Apparently not.

It is most fundamentally the comparison of value and cost that should drive such investments. In its regulation of the telecommunications sector the ACCC has removed any reference to demand driven valuations to the point where it bases regulated access prices for fixed line service on historic cost. These send the wrong signal to network investment and have discouraged efficient investment or any significant investment at all save that needed to continue a steady supply of service.

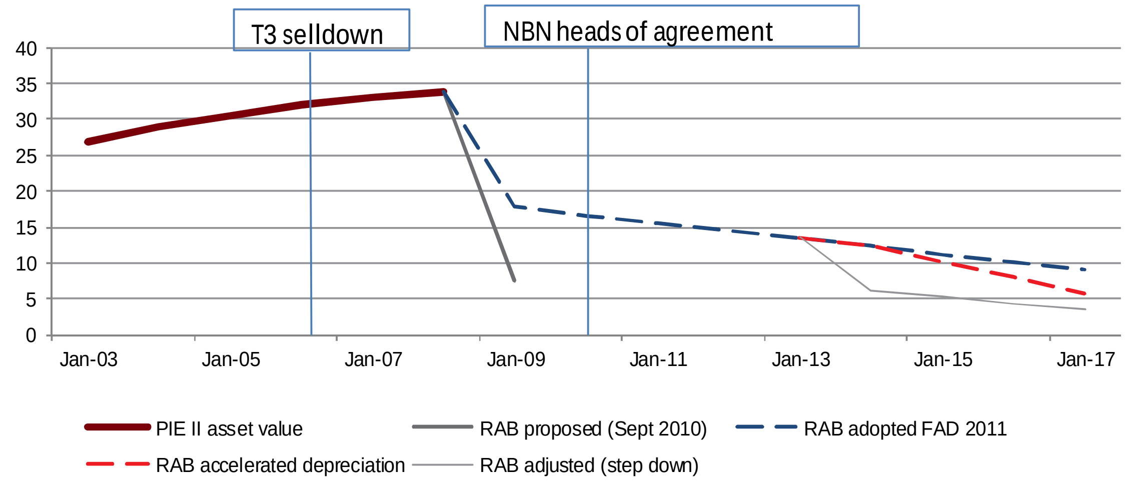
Its January 2009 report to the NBN Expert Panel includes a 35-page attachment on the valuation of telecommunications networks which not once assesses, or even comments on value in use, value to users, willingness to pay, benefit provided (apart from tax benefits) or any other demand-side concept. In fact none of these basic concepts of value from an investor's point of view are even mentioned. (ACCC FOI Request 23-2013, Document 2, ACCC Report to the NBN Expert Panel, January 2009, Attachment B.)

> *"Economic theory suggests that a sunk asset's value should be its scrap value."*
> ACCC Report to NBN Expert Panel, January 2009, Attachment B, p.28

The ACCC equates its preferred 'value' with an allowed cost recovery rather than a reflection of what benefit the asset may provide to users, how efficient provision and management may enhance user value, and what part of this value may accrue to suppliers of, or investors in, infrastructure. Reading Attachment B would send a chill through any investor that considers value should be a function primarily of the efficiency with which a supplier uses assets to meet the needs of its users. In our view, it is a stark indication of the problematic effect of a non-market-focussed regulator on efficient infrastructure investment and utilisation.

Its subsequent regulation of Telstra's fixed access network was adjusted to help entrench the NBN model including several significant backflips on access pricing approaches in 2009. It initially proposed writing down the value of the copper network from the A$32bn it had used prior to the Telstra 3 sell down to A$7.5bn. Telstra advised that at this valuation its investors would be better off selling the network for land value than running it as a telecommunications network. The ACCC subsequently relented only devaluing the network by c45% to c$17bn. Through this process, over the period from 2009 to the implementation of its revised approach to access pricing in 2011, Telstra shareholders lost A$bns in valuation.

Figure 3: Inconsistency in the regulated fixed network asset base



SOURCES: CIMB Analysis, ACCC access reports

"It is the fact that investors know the fallibility of regulators before they make their investments that can be the source of inefficiency."

– Productivity Commission Inquiry Report, Telecommunications Competition Regulation, September 2001

If investors didn't know about the fallibility of the ACCC in 2006, they certainly know now.

Fundamental issue: conflation of policy objectives

Given this context it's clear that the three key NBN related issues now being considered by the panel arise due to a conflation of three different policy objectives into a single 'visionary' objective under the previous government, that is the high cost FTTP NBN.

- The previous government wanted an investment in high speed broadband for reasons best described as 'visionary'. The optimal policy approach is that such investments are best made in the private sector which, in general, is far better placed than government to assess costs and benefits and risks given the long dated nature of such investments. That was not likely to occur we think mainly due to a mismanaged regulated access process. In the absence of private sector investment, if the government is to invest, it should be on the basis of a "rigorous, open and independent study of the costs and benefits".

- The ACCC wanted structural separation and stronger retail level competition. These, too, should have been assessed on their own merits regardless of the NBN. Structural separation is contentious and costly with minimal benefits. Retail competition was working despite the frustrations. Instead of a meaningful assessment, the ACCC threw in its lot with the previous government promoting FTTP over FTTN and other more economic technologies, endorsing the choice after April 2009 and subsequently adjusting regulatory settings to help establish it.

- Further, the previous government wanted uniform national wholesale prices (UNWP), effectively a cross-subsidy to high cost areas. This may well be a worthwhile policy but again it deserves separate assessment and funding. Separation of such subsidies was perhaps the single most important microeconomic principle to be established in the late 1980s period of microeconomic reform. It derives from a decision made by the Hawke cabinet in December 1989 to separately evaluate and fund Telecom's USOs. Prior to this competition in the sector was limited by the perceived need to support cross-subsidy: after it there was no enduring barrier to competition. The decision was subsequently enshrined in the 'competitive neutrality principle', promoted by Hilmer as a fundamental reform and adopted by COAG. The previous government couldn't bring itself to adopt UNWP as a stand-alone policy which might then require separate budget funding but rather reflected it in its statement of expectations to the NBN Co board.

This conflation of three separate policies into one rather than three each evaluated on its own merits is the underlying cause of the main issues facing NBN Co and the review panel. In a sense, what has gone on here is that the community is being required to forgo the benefits of full service carrier competition in order to support a hidden subsidy which is blown out by the most expensive broadband network on the planet. While the previous government bears the bulk of responsibility for this, our concern is that it has been so widely and deeply supported by the ACCC. The ACCC has an ongoing role, is effectively unaccountable for its actions and we think the risk is great that it does further economic damage to the sector.

Prior to the NBN, sector reform was on track to increase efficiency

The three key issues noted by the Commission in its framing paper have long been issues in one form or another in the telecommunications sector. While there will always be trade-offs between policy objectives in the sector, we contend that the broad framework of telecommunications sector reform implemented and updated over more than two decades until 2008 improved the efficiency and effectiveness with which the telecommunications industry met with and responded to these issues in an increasingly effective market setting.

We include in this framework of reform the privatisation of Telstra between 1997 and 2006 which improved the effectiveness with which that company, and those around it, made capital allocation and usage decisions. We contend in this submission that the effectiveness of those capital allocation decisions has been significantly constrained since about 2008 by mismanagement of the telecommunications access regime. Coupled with the factors that gave rise to the NBN, this mismanagement has reduced the effectiveness of the overall market performance of the fixed line sector as well as the efficiency and effectiveness with which the telecommunications industry met with and responded to the issues identified in the Review Panel Framing Paper.

Broadly, the sector reforms implemented over the period to about 2008, including the privatisation of Telstra, had a liberalising effect to a significant extent in the sense that the nation's resources including capital were employed more effectively in productive investment and usage. This liberalisation trend in the fixed line sector of the telecommunications was undermined from about 2008. (We think this would be demonstrated by a productivity analysis of the fixed line sector.) Telstra, the best positioned access provider, was unwilling to invest to the extent it should otherwise do because of the extent and nature of regulatory risk it faced. Other telcos, predominantly access seekers, were unwilling to invest to the extent they might otherwise because of the extent of benefit distributed through the access regime. (We have significant data and analysis to demonstrate this and would be happy to provide it to the panel in the right circumstances.)

Efficient broadband and voice services

An effective competitive market between integrated carriers and between carriers and service providers is the best way to ensure end users have affordable and fast broadband and affordable and reliable voice services. The nature of those services is likely to continue to change significantly from period to period both in terms of service features of value to end users and the most efficient means of providing these services. For instance it seems likely that the capability of wireless networks will continue to increase at a rapid rate, that the mobility aspect of these services will increase as a component of value to users and that fixed and mobile network will be increasingly interdependent in how they best meet these services.

Carriers and service providers should be free to use their resources in their best judgement to meet their own assessment of developing market demand. This market driven deployment of resources is the only way to efficiently meet the developing demand.

There is a significant risk that if some network provision is reserved to be provided by NBN Co alone that resources will not be deployed as needed and as demand arises. NBN Co may have its own view on how these demand and supply factors will evolve but it is only a single player. The market works most effectively when any player capable of identifying and assessing opportunities is free to invest in them.

We have seen a similar constraint apply over the past six years where much demand for high speed broadband services has not been met by suppliers in the market due to constraints placed on supply due to access regulation. The ACCC has too much unchecked power as an access regulator, has been too willing to constrain such investment by underpricing it or worse by saying one thing prior to investment and another after investment is committed.

Ongoing provision to underserved areas: It is well established in the fixed line sector that where the market supplies network services on a commercial basis to the most profitable part of the market then the incremental cost of extending service to less commercial and ultimately uncommercial areas is less than it would be if the uncommercial areas are served on a stand-alone basis or an 'inside-out' basis. To base a business plan for telecommunications infrastructure on serving the least cost effective areas first is economically irresponsible.

Efficiency requires a regulator capable of giving sufficient consideration to efficiency

Competitive capital markets deal with these issues of demand, supply and risk more effectively than any government agency. They are well able to deal with demand and supply issues, investment appraisal and the allocation of capital. The key constraint to this market evaluation process is the ongoing role of the ACCC and its approach to access regulation which misdirects investment in our view. We consider the ACCC does not give adequate weight to the capital efficiency limb of the long term interests of end users (LTIE) objective.

We think this is a structural matter as the ACCC is a consumer regulator with a legal orientation. We think the ACCC lacks the experience and expertise to deal with capital efficiency and organisationally has little desire to acquire this experience or develop the expertise. We asked the ACCC to summarise the extent of this experience and expertise. Its response was that it uses "a variety of sources including Comms Group staff skills (e.g law, economics, finance, engineering), internal consulting with the Economic and Legal Group and external consultants in addition to the submissions made to our processes by parties. From that mix of skills we would cover the bases that you are examining." (Email correspondence with the ACCC, 14 March 2014.)

We think the evidence is that it doesn't draw on this expertise to any useful extent. It does not give due consideration to investment returns, or other measures of capital efficiency or investment risks in the numerator of its regulatory assessments. We think internally it is dismissive of the 3rd limb of the LTIE test.

As a further illustration, in mid-2013 the ACCC published a guide for consumers on the telecommunications access regime. It describes the regime in terms of 'fairness' to consumers, a term loaded with distributional considerations and not used elsewhere in the access regime. The more fundamental matters of investment, investment returns and capital efficiency aren't mentioned although they are objectives specified in legislation. It is a legally-based, consumer-focussed regulator when what is needed is an economically-based, capital-efficiency-motivated infrastructure regulator.

The overall effect of the ACCC's regulation of the sector has been to redistribute the returns from investment to access seekers to the point where returns on investment in infrastructure are typically well below cost while the return to access seekers is materially above cost.

Over the past five years, as the ACCC has adjusted its regulation of access, investors in broad-based fixed line telecommunications infrastructure have lost money on a relative (or opportunity cost) basis while those who have invested in access entrepreneurs have made multiples on their investment. Several access entrepreneurs have become very wealthy, well beyond levels commensurate with the value they have added to the industry.

The signal from the ACCC to investors has been not to bother with risky infrastructure but rather to jump on the access bandwagon. It has misaligned risk and reward with significant negative consequence. We think the best way to resolve this is to move the role of industry specific regulation from the ACCC to a specialist infrastructure regulator anchored in capital markets.

Competition and contestability

With a properly functioning access regime we consider there is good reason to expect several carriers will contest roles as converged full service carriers.

Telstra, of course, would be one of these. To the extent there are policy concerns that it may seek to foreclose opportunities for rivals, these should be dealt with directly rather than inhibiting the significant contribution it may make as a highly efficient, well-focussed integrated carrier. The panel should consider options for different forms and levels of constraint on its ability to foreclose and have these tested against cost-benefit criteria.

Optus should also be a significant integrated carrier. However, there are ownership constraints to its willingness to take the risks necessary to improve its position as a second carrier. In the fixed line market it has become a flaccid competitor relying on the benefits distributed by regulation. It risks the same outcome in the mobile market particularly to the extent wireless converges with the fixed line network and services. Again, these issues are better dealt with directly rather than through a government run national NBN model.

We are more encouraged by the emergence of 3rd carriers including the infrastructure consolidation achieved by TPG, the service quality and content focus of iiNet, service provider consolidation by M2 and recent revival by Vodafone. We think this will inevitably lead to a 3rd full service carrier in some form. The question of whether there is room for a 4th full service carrier in an efficient market structure should be left to the market but again requires an access regime based on capital efficiency rather than regulatory opportunism.

To the extent each of these invests in high speed broadband infrastructure they should face minimum access obligations not just in price terms and conditions but including in retail market share terms proportionate to their network footprint. To the extent there is interest in white label or similar resale services provided by retail brands, there should be no non-market reason that a specialist firm shouldn't be able to aggregate access from each of the carriers and offer it as a national wholesale product.

In an efficient multi-carrier market, with an efficient access regime, and capable of servicing pure retail service providers at local and/or national level, the role of NBN Co is likely to reduce over time to smaller and smaller otherwise underserved areas. The extent to which the need for it is reduced by efficient market-based competition over time should be a matter for rejoicing. Every few years the parts of its operations that are potentially commercial and ideally contestable should be offered for sale in a form that promotes competition. Although hypothecation is frowned on by economists, in this case we would tend to support the proceeds being invested to support comparable service levels in ongoing non-commercial and non-contestable areas if it was part of an overall more efficient industry.

Innovation and diversity

We think efficient innovation and diversity is more likely to be achieved when service providers are required to weigh up and consider all the factors in the market including demand and potential demand as well as costs and risks of supply taking into account infrastructure costs and risks. Our concern is that there is a propensity for some content suppliers to ‘free ride’ on the risks taken by investors in infrastructure. This is a significant and wide-ranging issue and deserves to be considered as a stand-alone policy matter. We don’t see that innovation or diversity is necessarily impeded in a competitive infrastructure model with an effective access regime anchored in capital efficiency.