Report in relation to the ACCC inquiry into NBN wholesale service standards

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I have been instructed by counsel for NBN Co Limited (NBN Co) to prepare an expert report on certain aspects of NBN Co's wholesale service levels. This request is associated with the announcement by the ACCC of a public inquiry into those standards.

I have read, understood and complied with the "Expert Evidence Practice Note (GPN-EXPT)" supplied to me by counsel for NBN Co – Webb Henderson. I agree to be bound by the terms of the Practice Note. My opinions are based wholly or substantially on the specialised knowledge arising from my training, study and experience as described in my curriculum vitae in Exhibit 2.

In my analysis, I have relied upon several additional academic works, and certain materials provided to me by Webb Henderson, as further described or referenced in this report. My instructions, which are provided in Exhibit 3, identify the questions which I am requested to answer.

But first I set out my summary of the key facts underlying the current issue, and then make some general observations and some related contextual points.

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Summary

The question whether NBN Co's service quality standards need regulating is a complex one. I believe it is productive to approach it by examining the law and economics that underpin the 'contracts vs. regulation' literature, which is relevant to many network industry issues.

This literature shows that command and control regulation may be required in some circumstances, but that in other situations, contracting (which has been described as a form of 'self-regulation') between properly matched counterparties will create efficient outcomes. Self-regulation can provide a framework for counterparties to deploy their combined information efficiently; it also facilitates on-going collaboration in the interest of end users.

In practice, the present case is a combination of both modes of governance, as the commercial relationship between NBN Co and the retail service providers (RSPs) is regulated as to price by the ACCC, and service quality at both the wholesale and retail levels is supervised by the ACCC, ACMA and the relevant Minister in an unusually crowded regulatory space.

In what follows I address a number of specific questions. In answering them I make the following points:

- NBN Co and the RSPs have a shared interest in promoting demand by end users for broadband products. This provides them with an incentive jointly and separately to maintain a satisfactory quality of service, creating a broad alignment of service quality objectives along the value chain.
- As a Government-owned firm operating on a structurally separated, wholesale-only basis, with a mission to 'complete the network', NBN Co has a particular incentive to improve and maintain service

standards, to promote the take up of its services, and thus achieve revenue growth.

- This is enforced not only by contract with the RSPs but also by existing regulatory measures, the further threat of significant regulatory intervention and vigorous public scrutiny.
- The relative bargaining power of NBN Co and the RSPs is affected by the concentrated nature of the RSP market, and the existence of a uniform contract for all RSPs that acquire wholesale services from NBN Co.
- Each side's bargaining strength varies with its 'bypass' or 'outside options'. NBN Co has no other outlet to market than through the RSPs. A decline in service standards which leads to more customer withdrawal from the fixed market might hit NBN Co harder than the largest RSPs, whose mobile affiliates could benefit from such a withdrawal.
- In the current context, the distribution of bargaining power between NBN Co and RSPs is not obviously skewed.
- Regulating service quality is often more complex than regulating price. A process of negotiation by parties combining to meet end user demand may be able to deploy more and better information in setting and delivering target levels of performance and operating compensation schemes.
- It is noticeable that RSPs do not pass on the compensation payments which NBN Co makes under its contract to individual customers. This raises an issue of distributive justice, and is likely to leave customers with a sense of grievance.
- These and other considerations lead me to conclude on the evidence I have seen that the regulation of NBN Co's service levels would not currently promote the long-term interests of end users.

Introductory considerations

The relationships under examination

I have attempted to summarise in the following simplified way what I consider, from the standpoint of my report, to be the essential nature of the relationships among the principal parties: NBN Co and the various RSPs, the regulators involved (the ACCC and the ACMA) and the end users of the service.

- NBN Co is a Government-owned provider of wholesale-only access services; it cannot offer retail services, and operates in the wholesale level of the market.
- NBN Co has been subject to a sequence of 'Statements of Expectations' from the Australian Government, which specify its objectives.
- Telstra and Optus are retiring their legacy fixed access networks and migrating to the NBN. These players will acquire wholesale access services from NBN Co to service downstream markets, with a focus on the residential segment.
- There are regulatory requirements on other fixed network owners which may wish to overbuild the NBN in certain areas, including a requirement for structural or functional separation.
- NBN Co provides wholesale services on a non-discriminatory basis to multiple RSPs.
- The maximum wholesale prices that NBN Co may impose on RSPs are set out in its Special Access Undertaking (SAU). The SAU limits NBN Co's ability to recover revenues that exceed its regulated cost base (including a reasonable return on its investment) and also includes a long-term price commitment to not raise prices above CPI minus 1.5%.

- Wholesale service levels for products provided by NBN Co to retailers are not regulated within the SAU but set by contract between NBN Co and RSPs.
- The terms of that contract are set out in the Wholesale Broadband Agreement (WBA), the latest version of which (WBA3) came into effect in November 2017.
- The WBA sets out service levels, performance objectives and operational targets which NBN Co has commercially negotiated for its products and services. The terms of the WBA apply uniformly to all retailers.
- Compensation for NBN Co's failure to meet the service standards specified in the WBA is paid to the relevant RSP. It is not required to be passed on to the end user, other than where an RSP is required to pay compensation under the Customer Service Guarantee (CSG).
- RSPs compete in the retail market to supply customers, mostly households. There is also some competition between service providers in the downstream wholesale market for supply to smaller RSPs.
- The RSP market is concentrated; the largest operator, Telstra, has a share of 49%[2] (and the largest 4 have a combined share of 94%).
- Retail voice services are provided subject to a CSG, which in certain circumstances sets by law maximum timeframes for connection of a CSG service, repair of a fault or service difficulty, and attending appointments with customers; retail customers can (and in many

[2] This includes end-users supplied through Telstra's retail business and those supplied through its wholesale channels.

cases do) agree with their RSP to waive their CSG rights in return for certain benefits.

- The ACCC has recently taken action regarding claims made by certain RSPs concerning the maximum speeds which they offer their customers.
- The ACMA has announced rules to come into effect from mid-2018 to improve the consumer experience associated with moving to the NBN. These cover compliance with time frames for response to and resolution of complaints, a requirement to record all complaints and report to the ACMA, and requirements in relation to the provision of information to consumers and the quality of service (including service continuity).
- In December 2017, the Minister for Communications and the Arts announced that it would require NBN Co to establish a consumer experience dashboard to publicly report connection, fault repair and service delivery performance.
- The ACCC has powers to regulate NBN Co service standards, if it chooses to do so, through the mechanisms of a Binding Rule of Conduct or an Access Determination.

Regulation vs. contracts

Before embarking on the four questions which I have been asked to answer, it is useful to set the present issue within a more general economic and legal framework. The ACCC's discussion paper does not offer such a framework, but nonetheless I think it is instructive to have one in mind.

In my opinion, the issues raised by the inquiry can be conceived as falling into the rubric of 'regulation vs. contract'; other formulations are: 'regulation by agency vs. regulation by contract' and - in this context - 'the use of public law vs. the use of private law'.

In a network industry, if the contract option is implemented the relevant parties are the infrastructure owner and its customers. In this type of relationship, relevant issues include the governance of access to infrastructure, the bargaining power of the parties and the degree of contract enforcement.

The alternative of access regulation is well known. The access provider is required by the regulator to make its assets available to access seekers on regulated terms and conditions. The regulator sees that its rules are observed. Contracts sweep up other more incidental aspects of the transaction. The element of negotiation is largely missing.

In the economic literature, writers such as Oliver Williamson have spent a great deal of time discussing how the transaction costs associated with finding a mutually advantageous bargain can be overcome, especially when some form of commitment is required by both sides.[3] [4]

More fundamentally, Williamson in his 2009 Nobel Lecture quotes James Buchanan to the effect that (neo-classical or standard) economics had taken a wrong turn in its pre-occupation with optimisation and choice. He suggested that things should be seen

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[3] Oliver Williamson, 'Transaction cost economics: the natural progression', Nobel Prize Lecture. December 8 2009, available at https://www.nobelprize.org/nobel_prizes/economic-sciences/laureates/2009/williamson-lecture.html

[4] Other discussions can be found at: José A Gómez-Ibànez, Regulating Infrastructure: Monopoly, Contracts and Discretion, Harvard University Press, 2003; Martin Cave and Chris Doyle , 'Contracting across separated networks in telecommunications: lessons from theory and practice', Communications and Strategies, (68) 2007, pp. 21-40; Paul Joskow, 'Contract duration and relation-specific investments: empirical evidence from coal markets', American Economic Review, 1978, pp. 168-185; Jeff Makholm, The Political Economy of Pipelines, Chicago University Press, 2012.

through the 'lens of contract' rather than the 'lens of choice', as 'mutuality of advantage from voluntary exchange is...the most fundamental of all understandings in economics.'[5]

Similar points about the properties of negotiated outcomes can be found in the legal literature, notably in the work of Hugh Collins.[6] A major theme of Collins' work is that contracts should be seen primarily not as a tool for imposing sanctions but as providing a basis for negotiating commercial relationships, summarising them in a systematic form, and amending them; thus providing an on-going basis for future collaboration. Collins describes contracts as a private law form of self-regulation:

> *"Most of the detailed standards governing a particular transaction are set by the parties themselves, as a type of 'self-regulation'. These standards are described as the terms of the contract. In some instances, these standards will be the result of negotiation, but more typically they will be set by one of the parties and contained in a standard form contract...As a supplement to self-regulation, private law often provides a model set of rules to govern a particular type of transaction."*

He further observes that this private law self-regulation is a close cousin of the 'responsive regulation' which several authors have espoused, and which is often proposed as a more efficient and effective way of achieving regulatory objectives.

I noted above that the issue of 'regulation vs. contracts' investigated here arises frequently in relation to infrastructure investments. This is

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[5] Cited in Oliver Williamson, 'Transaction cost economics: the natural progression', Prize Lecture, December 8 2009.

[6] Hugh Collins, Regulating Contracts, Oxford University Press, 1999.

a result of a combination of the inability of the relevant markets to support desirable levels of competition and the sunk nature of the investments. This places both sides in peril: the access provider is at risk of failing to recover its sunk costs; the access seeker is at risk of being over-charged. In principle the problem can be resolved by regulation or by the conclusion of a negotiated agreement by the parties.

Several identifiable factors may impact the balance between the two options:

- congruence of interest between the two sides may favour a negotiated contract – what Professor Collins calls ‘self-regulation’;
- a complex subject matter may be better dealt with by negotiation between the parties rather than by an outside body (in the person of a regulator);
- the balance of bargaining power has a major bearing on the choice of alternatives: in particular, a ‘false positive’ finding of an imbalance may rule out an efficient contractual solution, while a ‘false negative’ finding of a similar nature may expose one party in the contract to unequal terms.

Put differently, one way of describing the implications of the work of Williamson and Collins is that they show how, in certain circumstances, a properly designed contract, negotiated using the detailed knowledge of parties, can support a satisfactory outcome. However, that depends – amongst other things – on the exact subject matter of the contract, and on the means and motives of the parties: their goals and the bargaining power they can deploy.

Special features of the subject matter in this case

The circumstances of this case are complicated by the fact that commercial relationships within the examined value chain are founded on a complex mix of overlapping regulation and contracts.

In the first place, the decision was taken long ago to regulate the 'price' component of the NBN Co-retailer relationship. What is at stake here is the service quality issue.

Price has its natural and unambiguous summative metric – dollars per unit. In simple cases (absent bundling and quantity discounts) the price (or an individual's willingness to pay) is easy to identify and adjust, as necessary.

But a full list of quality attributes might be almost infinite in its variety, and each consumer will attach a different marginal value to each. There may also be complex relationships of substitution and complementarity among the quality attributes. At the least, this makes it harder to both regulate and write contracts for these relationships.

Quality attributes can be translated into the same metric using, according to context, either the cost of improving quality or the customer's willingness to pay for an increase in a given quality attribute. In the context of price regulation, as an illustration of this duality, it has been pointed out that a firm subject to a price cap and wanting to make more money might either simply breach the control (probably rather conspicuously), or it could covertly degrade the quality of the product.

Service or quality levels fall into two categories. One type has a 'public good' feature: all customers have the same quality level. Examples are the taste and smell of water in a public supply, and the overall resilience of a local communications network. Others are private attributes which can be varied as between different customers; for example, installation

and fault repair can be accomplished for different customers according to a more or less demanding timetable.

The optimal level of the first type of quality variable can be derived (notionally) by choosing the level of quality which sets the marginal cost of a uniform quality improvement with the *collective* marginal valuation of all customers. This can then be implemented by command and control regulation supported by penalties.

Within the second category, into which many of the service quality variables being considered by the ACCC fall, differentiation and customer choice are possible: in other words, customers can be offered a menu of choices – either by the same supplier, or as a result of choosing a particular supplier. There is thus a potentially beneficial private law contract-based approach here.

A further complication with both price and quality attributes is that both can be simultaneously subject to regulation and to contracting. A regulator-set price cap usually imposes a maximum price. The regulated firm is usually entitled to enter into a contract to offer the service at a lower price – though it may be precluded by regulation from charging different customers different prices.

In relation to service quality variables, a regulator can use a 'command and control method' by specifying required service standards, and enforcing them by imposing contractual compensation, or by other means such as fines.

Therefore, while the choice in other contexts between governance by regulation and governance by contract, and comparisons between them, can be illuminating, the present issue contains many complications.

In particular:

- there is already price regulation for NBN services;

- there is already government intervention through the imposition of regulatory service standards (via the CSG) for retailers, which is subject to a pre-defined scope and can be abated if the end-user agrees;
- the Minister for Communications and the Arts has flagged further changes through its upcoming reform to the Universal Service Obligation (USO). These changes provide for a new Universal Service Guarantee for access to broadband (in addition to voice services); it is envisaged that this will include "a new consumer safeguards framework";[7]
- the ACMA package coming into effect in mid-2018 will impose new obligations on RSPs in relation to complaints handling, consumer information, service quality and other aspects.[8]

While the ACCC imposes no service standards directly on NBN Co or RSPs, the above-mentioned efforts suggest to me that the overarching regulatory scheme is in a state of flux and that the use of a further command and control intervention in relation to service quality will not necessarily be a straightforward undertaking.

This raises the prospect of regulatory error and the risk of overlap and inconsistency between interventions by different regulators covering service standards at different and intersecting levels of the supply

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[7] Minister for Communications and the Arts, Media release: Turnbull Government to improve regional telecoms delivery with new Universal Service Guarantee, 20 December 2017.
http://www.minister.communications.gov.au/mitch_fifield/news/turnbull_government_to_improve_regional_telecoms_delivery_with_new_universal_service_guarantee

[8] The co-existence of two regulators in a partly shared regulatory space is another significant complication, as is the fact that the Government's policies on consumer safeguards is still work in progress.

chain. Before making another intervention, it might be better to allow sufficient time for the efforts by the Minister and ACMA to bring about behavioural changes in market practices.

A final key feature of the present case is that the relationship in question is a wholesale one between NBN Co and the RSPs, which work together to meet the demand of end users, who naturally evaluate the price and quality of the parties' joint product. To that extent, NBN Co and the RSPs sink or swim together.

I now address the four questions which I have been asked to answer.

Questions

No 1. As a wholesale-only company operating under an NBN specific regulatory framework (which is expected to be further evolved under current Government policy), and given the level of investment and the challenges associated with a project of this size and the level of parliamentary and Government oversight and direction which NBN is subject to, does NBN have sufficient incentives in respect of the contracted wholesale service level commitments it offers over time to encourage RSPs to connect end users to the National Broadband Network and purchase NBN's wholesale services?

In answering this question, I have some information at my disposal concerning the contract negotiation process for WBA3. Counsel to NBN Co has given me some data on contract changes between WBA2 and WBA3, to the effect that the negotiation period was very lengthy, that there were many rounds of negotiation, and that extensive feedback (over 700 individual items) was received. I have also been told that RSPs did not argue in favour of higher targets for activation and assurance activities, though they did favour improvements in rebate levels (which would effectively redistribute revenues between NBN Co and RSPs). I have examined a document prepared by NBN Co which

summarises the changes in WBA3, including many which are 'customer-positive'.[9]

I note that at the retail level the main source of complaints about standard NBN service standard areas are as set out in Section 6.2 of the ACCC's discussion paper:

> *"The top complaint issues about NBN services in 2016/7 were about connection delays, unusable internet services and slow data speeds"......*

The discussion paper goes on to observe:

> *"This information suggests that customers are experiencing issues in relation to NBN broadband connection and fault rectification, as well as speed performance, and this is manifesting itself with an increasing number of retail complaints...". (page 42)*

It is NBN Co's performance in respect of connection and fault rectification which I have in mind in the discussion which follows.[10] I consider three issues:

- those arising from the wholesale nature of the transactions;
- the consequence of NBN Co being a Government-owned enterprise rather than one owned by private sector investors; and
- the effect on NBN Co's performance of the scrutiny to which it is subject.

Wholesale transactions

The value chain involved in providing broadband services is a complex one. Households, firms and other organisations are the end users. The value chain includes: transmission of various kinds (backbone, core

[9] NBN Wholesale Broadband Agreement 3: Final, 7 September 2017.

[10] I note that issues regarding data speeds are largely a function of other factors.

and backhaul networks), local access, and content provision (by RSPs and 'over the tops'). The Australian regime is moving towards a system in which (with exceptions) a single wholesale-only local access provider in any location supplies to a variety of RSPs to supply end users.

The demand for these various input services is a demand derived directly from end users – where the extent of that demand is likely to depend on both price and quality of service. This places NBN Co and the RSPs in a position where they have both common and conflicting interests, in a way which clearly does not arise when a vertically integrated profit-maximising supplier transacts directly with end users. The common interest is to provide a high-quality product at a price which generates substantial sales. The conflict arises over the division of any profits (or quasi-rents) between the firms in the supply chain.

This conflict is illustrated in the well-known 'double marginalisation' problem, according to which if two independent firms operating in a value chain successively pile on excessive margins, the effect will be to raise prices to a degree which harms both firms' interests.

The benefits of co-operation can be realised by negotiation (or self-regulation). I summarised above Professor Collins' view that contracts should be seen primarily not as a tool for imposing sanctions but as providing a basis for negotiating commercial relationships, summarising them in a systematic form, and amending them; thus providing an on-going basis for future collaboration. To a substantial degree, in terms of reputation for quality, NBN Co and the RSPs have an incentive to negotiate co-operatively.

In the extreme case where the seller of the wholesale product at a regulated price has <u>all</u> the bargaining power, and the RSPs none, the wholesaler would choose its own service quality level, and seek to write a performance contract covering the service quality levels of RSPs, in

such a way as to maximise profits from end users. It would replicate the position of a vertically integrated monopolist (whether it could impose its will fully on the RSPs by contract is an open question).

However, with a more equal distribution of bargaining power, co-operation over service quality levels can be negotiated between the two sides in the wholesale transaction, with the goal of providing end users with a strong incentive to buy the retail product. I return to the question of the distribution of bargaining power below. The point made here is that the scope for co-operation is considerable.

The incentives of NBN Co as a Government-owned enterprise

NBN Co is a Government-owned enterprise, rather than one owned by private investors. In the case of investor-owned firms it is standard to analyse regulatory issues within the framework of profit maximisation as an objective. This is subject to the usual qualifications associated with such things as the cognitive limitations of managers, ambiguity over the time horizon to be adopted, and the possibility of disjunction between the goals of the owners and those of the managers. But I am not aware of any better alternative.

Government-owned enterprises are different, however. There is usually (but not always) a good reason why they are in public ownership, relating to the fact that they pursue major public or strategic purposes. Under Government ownership, there is typically more latitude and variety available to Government owners in the choice of what objectives to pursue. Thus, such enterprises are entrusted with bespoke objectives and subject to specific budgetary and other constraints.

With the recent focus on the sale of public assets to the private sector, the economic literature on the goals of public enterprise has slowed to a trickle over the past 20-30 years. An earlier review notes a combination of multiple objectives (often including social ones), and a tendency towards opportunistic political interventions. This creates a

vacuum into which a manager's own objectives can be inserted. Various hypotheses about the latter have been advanced, including maximisation of output, employment or the enterprise's discretionary budget.[11] But such enterprises typically have financial return targets as well. This is the case with NBN Co, and such targets are particularly arduous in its case.

As distinct from public enterprises with a long history and wide portfolio of activities, NBN Co is a young company with a purpose which can be easily described. The Shareholder Ministers of the Australian Government have issued a series of 'Statements of Expectation,' the latest of which is dated August 2016. The section entitled 'Broadband Policy Objectives' begins with the sentence:

> *"The Government is committed to completing the network and ensuring that all Australians have access to very fast broadband as soon as possible, at affordable prices, and at least cost to taxpayers."*

It goes on to say that:

> *"NBN should ensure that its wholesale services enable retail service providers to supply services that meet the needs of end users,"*

and that:

> *"NBN should pursue these objectives and operate its business on a commercial basis."*

It would be a mistake to read too much into these observations, which are almost certainly supplemented via much more detailed shareholder/company communications and supported by performance

[11] See Ray Rees, Public Enterprise Economics, 2nd edition 1984, ch. 2.

monitoring. But it is hard to conceive of an investor-owned company having these objectives, which on their face give considerable prominence to an output target, which is to be generated at minimum cost to the taxpayer.

The question at issue here is: will NBN Co likely have a cost-saving motive to degrade (or not improve) its quality of service in a dysfunctional way to meet its financial targets? In my view, once NBN Co's only shareholder has expressly set out an objective of 'completing the network', it is likely that its managers would be reluctant to lower (or decline to improve) service quality. Such behaviour would risk reputational loss with both end users and the shareholder.

Moreover, a strategy of degrading the quality of service might save operating costs but would be at the expense of reducing revenues. With fixed communications (and other utility) networks, the majority of capital costs are incurred in passing homes, rather than in connecting them to the local access network. This can make it irrational to risk reducing take-up to save one-time costs of connection.

The ACCC has previously described NBN Co as facing a 'revenue sufficiency risk' in relation to its cost recovery efforts. Along with other constraints, the ACCC has concluded that this creates incentives for NBN Co to incur costs efficiently and to encourage connections to its network. Thus, in 2015, the ACCC observed:

> *"NBN Co faces uncertainty about whether it will earn sufficient revenue in the future to recover its accumulated losses, and this provides incentives to control its costs during the initial roll-out period. Further, NBN Co is subject to a number of government directions and parliamentary processes, particularly during the*

roll-out period. This high level of external scrutiny is likely to limit the potential for NBN Co to incur inefficient expenditure".[12]

I agree with these observations and would add that these incentives would also work to discourage NBN Co from a policy of degrading the quality of its services, or failing to improve the quality of such services over time.

Such a policy would not only delay 'network completion' as far as take-up is adopted to measure it, but also worsen financial indicators. This prospect is more worrying for NBN Co because, as noted below, customers do have a degree of choice, in that they can abandon their fixed connection and join the substantial minority which has switched to a mobile-only service.

Levels of oversight of NBN

The final part of the question is concerned with whether it makes sense for NBN Co to deliberately lower its quality parameters to save money, in light of the levels of popular, regulatory, parliamentary and media scrutiny which it faces.

NBN Co attracts a great deal of attention. It is a major project which by 2021 will seek to pass 11.7 million premises and supply 8.7 million of them. Its objective of 'completing the network' has required it to ramp up its roll-out to as many as 3 million premises a year, in a way which would inevitably encounter unexpected obstacles. To the best of my knowledge this is by international standards a very fast and inclusive roll-out. This process has placed a strain on NBN Co and inevitably attracted attention to its failings. RSPs have also attracted criticism. As a result, the already congested regulatory space in which broadband sits

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[12] ACCC, NBN Co Special Access Undertaking - Long Term Revenue Constraint Methodology 2013-14: Draft Determination and Price compliance reporting 2013-14, February 2015, page 10.

has been filled in the past few months by significant regulatory activity by the ACCC, the ACMA and the Minister for Communications and the Arts. This process may be extended by the ACCC following the present inquiry.

Given its objectives, in my opinion, it is questionable whether NBN Co would find it advantageous to sacrifice its quality levels for commercial reasons. The relatively equal distribution of bargaining power between NBN Co and RSPs and its incentives as a Government-owned enterprise militate against such an outcome. In addition, the applicable level of oversight experienced by NBN Co would suggest that any commercial benefit from doing so might be short-lived and the political and regulatory responses painful.

Conclusion

I have reached three conclusions, which to some degree are inter-related:

- NBN Co has incentives which promote co-operation with RSPs, and others which lead to conflict; there are grounds to believe that, if certain conditions are fulfilled, contracting may be used by NBN Co and the RSPs to generate a fruitful co-operation which deploys the combined knowledge of the parties; external and (almost inevitably) conflict-ridden regulation is unlikely to generate this outcome;
- the feature of NBN Co that it is in Government ownership is likely to make it focus - more than an investor-owned firm would - upon maximising output by 'completing the network' rather than on maximising profits;
- separately from the points made above, NBN Co is unusually subject to political, regulatory and media scrutiny, which is likely to discourage it from deliberately degrading, or limiting improvements in its quality of service.

The first of the above points – on the balance of co-operation and conflict – depends on the degree of bargaining power between NBN Co and the RSPs; this is the subject of the next question.

No 2. What is NBN's bargaining power relative to the bargaining positions of RSPs? Do RSPs have countervailing power which would lead to the negotiation of contracted service level commitments that would result in competitive and efficient market outcomes?

Any negotiation will be affected by an imbalance of bargaining power. This applies even in cases where there is interdependence and a degree of community of interest among the various parties. A successful negotiation between NBN and an RSP, a subset of RSPs or all RSPs taken together, will almost certainly make both sides better off compared with any alternative non-cooperative outcome. In other words, there is a 'gain from trade' and the way it is distributed may reflect the relative bargaining power of the key participants.

Thus, it is no surprise that the ACCC discussion paper says, on page 21:

> *"We are interested to understand from all stakeholders whether there is a significant degree of inequality in bargaining power between NBN Co and access seekers and if so, the degree to which this has impacted commercial negotiations, particularly in relation to service standards set out in WBA3."*

Some initial points are worth making:

- In the relationship between NBN Co and RSPs, bargaining over price is practically limited due to the existence of maximum regulated prices in the SAU and the use of the WBA and discount notices to implement pricing matters.

- Because the scope for negotiation is limited to service quality variables, the feasible range of variation may be somewhat limited

by the nature of the customers' reaction to their value. Beyond a certain point, few customers would react to a further improvement; below a certain point, few customers would buy the product.

- Any excessive reduction in service quality by NBN Co is likely to reduce the demand for the final product, and this will reduce the capacity of the RSPs to market the end product.

How might one investigate the degree of equality in a commercial negotiation, or more precisely, the degree to which a buyer or group of buyers can exercise so-called countervailing buyer power against a powerful seller?

This is a question which competition authorities are often obliged to address in their work. For example, the loss of competition associated by a merger might be abated by having a concentrated group of large customers on the other side of the market. Or an inquiry into competitiveness may address the same question.

This issue is dealt with in the ACCC Merger Guidelines, which point to the importance of a buyer's ability to 'by-pass' an individual supplier.[13]

The ACCC has also addressed it in individual markets under investigation.[14]

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[13] See ACCC, Merger Guidelines, 2008, revised 2017, pp. 44-45.

[14] See ACCC, Inquiry into the East Coast Gas Market, 2016 pp. 99-100, available at https://www.accc.gov.au/system/files/1074_Gas%20enquiry%20report_FA_21April.pdf

The Merger Guidelines currently used by the UK competition authority, the Competition and Markets Authority, discuss countervailing market power more fully, noting that:[15]

> *"Buyer power can be generated by different factors. An individual customer's negotiating position will be stronger if it can easily switch its demand away from the supplier, or where it can otherwise constrain the behaviour of the supplier."*

As a preliminary matter, the same Guidelines note that:

> *"The extent to which the buyer power of one customer, or group of customers, can constrain the merged firm's prices to all its customers (sometimes referred to as an 'umbrella effect') will depend upon the market concerned."*

In this case, all RSPs have the same prices and contract terms, so the benefits negotiated by, for example, Telstra with its 49% market share are made available to all RSPs.[16]

The approach described above acknowledges that a party to a transaction can defend itself against the impact of buyer (or seller) bargaining power if it has 'bypass' or 'outside options' available to it. We consider what these might be in the present case.

The outside options available to NBN Co are limited. NBN Co has an owner committed to 'completing the network'; each of its customers

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[15] Competition and Markets Authority, Merger Assessment Guidelines, 2010, pp. 62-64.

[16] Telstra's position is further strengthened by its roles as the legacy provider of wholesale access services and as a contractor to NBN Co on certain aspects of NBN Co's network build that involve Telstra's legacy network assets. I believe it likely that this level of involvement would lessen the information asymmetry that would otherwise exist in favour of NBN Co.

has the same contract, so NBN Co cannot 'divide and rule'; it cannot itself enter the retail space or sponsor a retailer.

RSPs do not have a very plausible enduring fixed substitute for fibre access, although at least some of them have the option, in the 18-month period in which the transition to the NBN takes place in a given locality, to rely upon their own legacy networks. Separately, TPG has a fibre to the building (FTTB) network with limited coverage in higher value localities.[17]

Perhaps most importantly, two of the largest RSPs (Optus, Telstra) have a mobile substitute which they can offer to their customers or use to attract new customers. Vodafone as a new entrant in the fixed service segment also has its own mobile network, while TPG will shortly become the fourth mobile entrant in Australia with its own LTE network.

Prospectively, 5G services (including emerging fixed wireless variants) are expected to provide an even stronger alternative to a fixed service based on fibre. By way of example, I am aware of Verizon recently announcing its intention to use 5G fixed wireless to deliver residential mobile broadband services to up to 30 million households that are outside its own fibre footprint in the United States.[18] I also understand that a similar deployment has been announced by Optus in Australia.[19]

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[17] The extent of this rollout was disclosed as being "in excess of 115,000 individual apartments" in August 2017. See, 'TPG revises reach of FTTB network', IT News, 11 August 2017. Available at https://www.itnews.com.au/news/tpg-revises-reach-of-fttb-network-470625

[18] https://www.fiercewireless.com/wireless/verizon-fixed-5g-just-one-slice-overall-network-evolution

[19] https://media.optus.com.au/media-releases/2018/optus-5g-rollout-to-commence-in-early-2019/ Also, https://www.itnews.com.au/news/optus-to-offer-fixed-wireless-over-5g-484241

I am also aware that NBN Co itself has recently estimated that up to 15% (but potentially more) of its addressable fixed line customer base could be subject to substitution from wireless services.[20] While I cannot accurately forecast the degree of competitive bypass that mobile technologies will eventually pose to NBN Co, the observed significant levels of bypass could affect the balance of bargaining power that exists between NBN Co and the largest RSPs.

Based on the analysis above, I would not expect either side to have an overwhelming advantage in bargaining power, and I would expect both sides to have strong incentives to reach an agreement. Of course, from a procedural standpoint, NBN Co has an advantage in being a single firm facing numerous RSPs, some of which may be tempted to free-ride in the process of negotiations. But the retail broadband market is highly concentrated, with the largest firm holding 49% and the largest four firms 94%; those four firms have a strong incentive to devote resources to the negotiation.

No. 3. Do RSPs have incentives to "pass through" NBN's wholesale service level commitments down the supply chain in their retail agreements with end users? Do RSPs face any impediments to such "pass through"? If pass-through is not evident, what effect will this have on the appropriateness of wholesale regulation (if any) of service levels?

Suppose a NBN Co engineer fails to keep an appointment to connect a household to the NBN, at the behest of an RSP which has sold the retail service to the end user. Under the contract between NBN and the RSP,

[20] Communications Day, 'NBN considering 5G overlay in fixed wire footprint', Issue 5556, 13 February 2018.

the RSP receives compensation from NBN Co, even if the chiefly inconvenienced or injured party is not the RSP.[21]

Except for CSG related compensation which RSPs are required to pass through to their end users (in the limited circumstances where compliance with the CSG is not waived),[22] I understand that the RSPs are under no obligation to pass the payment onto the customer, and do not generally do so on a voluntary basis.

Of course, if the retail market were super-competitive, an RSP would find in these circumstances that it had to lower its prices in a way which transferred its revenues from this source to the generality of its customers by adjusting its prices downwards. Given the relatively small sums involved, it is not possible to establish with certainty how far this effect operates. In such a super-competitive market, one might expect that a switch to a pass-through of compensation to individual customers would have a 'waterbed' effect – leading to rising prices for other customers. What would happen in an imperfectly competitive retail market would depend upon the particular form of interaction among providers, but the market pressures enforcing such a general pass-through would be reduced.

From the standpoint of 'distributive justice', there may be a case for handing the compensation over to the affected party. Provided NBN Co does actually compensate the RSPs for failure to meet its service quality targets, it has an incentive to meet those targets. But its broader interest in improving the customer experience is likely to cause it to

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[21] The RSP might suffer as well if its revenues are reduced by delay.

[22] I also understand that, in the case of the CSG, NBN Co will only pay CSG compensation to the extent it has contributed to the RSP being liable to its end-users for CSG compensation (which the RSP may seek to have waived in most instances by its end users).

prefer that the compensation it pays to RSPs be passed on to customers as a means of reducing customer dissatisfaction.

It is certainly possible to devise a hand-over system of this kind. One operates in the UK, where the organisation providing the bulk of wholesale broadband products is Openreach. This body is a component of the historic monopolist, BT, which also competes in the retail broadband market. Because BT's vertical integration may give rise to an incentive to discriminate on quality of service against BT's retail competitors, Openreach has been a functionally separated component of BT since 2006 and is now legally separated as well, as well as subject to conditions which grant it a degree of management independence.[23] These developments have made the arrangements for ensuring quality standards somewhat controversial.

Under the service quality regime which the UK regulator has established, if a commitment is breached the retailer makes a stipulated compensation payment to the end user.[24] If responsibility for the failure rests with the retailer, the matter stops there. However, if Openreach is responsible, it makes an equivalent payment to the retailer.[25] This is similar to the arrangement which operates in Australia with the CSG.

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[23] See Commitments by BT Plc and Openreach Limited to Ofcom, March 2017, available at https://www.btplc.com/UKDigitalFuture/Agreed/CommitmentsofBTPlcandOpenreachLimitedtoOfcom.pdf

[24] See Ofcom, Comparing Service Quality, April 2017, available at https://www.ofcom.org.uk/phones-telecoms-and-internet/advice-for-consumers/quality-of-service/report

[25] The same arrangement applies on UK railways. If a train is late, the separated service provider pays compensation to passengers. If the fault is attributable to a failure by the network operator, the service provider is then re-imbursed.

Ofcom has recently secured an agreement with the major retailers which makes the payment to the end user automatic.[26]

As is apparent from this, Ofcom has imposed quite heavy regulation on broadband service quality: imposing overall performance targets (with a power to impose fines up to 10% of turnover if they are not met), requiring compensation for individual failures, and setting compensation levels. As noted, this is due, in part, to concerns that Openreach might have the means and motive to 'sabotage' the service levels offered to BT's retail competitors. While the incentives associated with BT's vertical integration are less relevant, the regulatory design question as to whether compensation should be passed through to end users is relevant to the Australian context.

In summary, RSPs do not appear to have an incentive to pass through NBN compensation payments to their retail customers unless they are legally required to do so and have not otherwise abated that requirement (which RSPs do as a matter of general practice).

I can think of no strong practical reason why they should not do so, but note that unravelling the precise reasons for the current situation is a complex task. It would require a more detailed analysis of the extent and nature of competition in retail markets and the marginal value attributed by end users to price, service quality and performance in their purchasing habits. However, in any event, the lack of a pass through to end users raises a question about the sufficiency of regulating this form

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[26] See Ofcom, Automatic compensation for broadband and landline users, November 2017, available at https://www.ofcom.org.uk/about-ofcom/latest/features-and-news/automatic-compensation2

of compensation solely at the wholesale level, and the resulting consequences for distributive justice.

No. 4. Contrasted with the setting of service levels through private contract, would the regulation of NBN's wholesale service levels by the ACCC through binding rules of conduct or an access determination promote the long term interests of end users, and would such regulation be otherwise appropriate having direct regard to the factors for consideration in making binding rules of conduct or an access determination as set out in section 152BDAA and section 152BCA of the CCA? Can you also consider the timing of such regulation, particularly in light of the fact that NBN is in the rollout stage of the NBN (and is approaching peak rollout) and the Government has directed NBN to complete the rollout as soon as possible.

Would service level regulation promote the long term interests of end users?

This is a test formulated in relation to three objectives:

a) *"the objective of promoting competition in markets for listed services*

b) *the objective of achieving any-to-any connectivity in relation to carriage services that involve communication between end users*

c) *the objective encouraging the economically efficient use of, and economically efficient investment in:*

   i) *the infrastructure by which listed services are supplied*

   ii) *any other infrastructure by which listed services are, or are likely to become, capable of being supplied."*

I noted earlier that the issue of 'regulation vs. contracts' investigated here arises frequently in relation to infrastructure investments, as a

result of a combination of the inability of the relevant markets to support desirable levels of competition and of the sunk nature of the investments. A number of identifiable factors may alter the balance between the two options:

- congruence of interest between the two sides may favour a negotiated contract;
- a complex subject matter may be better decided by negotiation between the parties than by an outside body (in the person of a regulator);
- an imbalance of bargaining power may place the access seeker at risk of being forced to conclude an unfavourable and unfair contract, and may thus favour regulation.

These are high level points. But the specifics of this case are unusual, in the sense that price regulation in the supply of wholesale local access is already in place, so that the two choices in this case are confined to individual service quality levels. A corollary is that a contract can be concluded which requires the party responsible for any default to pay a penalty to its contractual party; this allows the penalty for failure to be one of the elements in the contract.

I have suggested above in answer to question 1 that NBN Co and the RSPs taken together have a common interest in promoting demand by end users for broadband products, and that this provides them with an incentive jointly and separately to maintain a satisfactory quality of service. In the case of NBN Co, its status as a Government-owned entity, when the Government is committed to 'complete the network,' is likely to restrain any deliberate attempt to cut corners on quality. As recent and current events on the regulatory front indicate, the conduct of NBN Co and the RSPs is carefully scrutinised by its two regulators, as well as receiving attention from the relevant Minister and the media.

I also note that regulating service quality is often more complex than regulating price, and that a process of negotiation by parties combining to meet end user demand may be able to deploy more and better information in setting and delivering target levels of performance and operating compensation schemes.

I have addressed the question of unequal bargaining power by the standard method of considering the parties' alternative options to not concluding an agreement, observing that in the current context there appears to be a relatively equal distribution of bargaining power between NBN Co and RSPs.

Finally, I note the LTIE question would normally be asked and answered by the ACCC in relation to a specific regulatory proposal. The matter at issue here is whether some form of regulation, not yet fully specified, should be applied to NBN's service quality levels and whether doing so would be consistent with the applicable legislative criteria that the ACCC is required to consider when declaring a service. This introduces a significant degree of vagueness into the application of the test.

Against the background of these observations I go on to consider the specifics of the LTIE.

a) <u>the objective of promoting competition in markets for listed services</u>

NBN Co is subject—in the transitional interim—to competition from legacy fixed access providers, to some potential competition from other network builders and to competition from mobile local access providers (in respect of end users who may decline to have a fixed connection). RSPs compete against one another and also face substitution by mobile services.

If regulation had the effect of imposing more appropriate service quality levels or reducing the quality-adjusted price of wholesale local

access, the effect might be to promote competition in markets for listed services. Conversely, if regulation imposed service levels which were less than what would be procured through contractual means (e.g. as part of negotiations in relation to "WBA 4"), the effect would be the opposite.

Based on the factors that I have discussed I do not find, on the evidence available to me, that regulation of NBN Co's service levels would necessarily produce a better outcome in terms of those levels.

There is a more general and diffuse factor in play, concerning commercial processes generally in a market place. It is widely thought that markets work more fluidly and flexibly in the absence of command and control regulation, which limits firms' room for manoeuvre, adapts more slowly to new circumstances, and may stifle general innovative activity.

Together these factors lead me to conclude on the evidence available to me that regulation of NBN Co's service quality levels does not promote the objective of furthering competition in listed markets.

b) The objective of achieving any-to-any connectivity in relation to carriage services that involve communication between end users

I understand that this relates to the ability of a party on one network to communicate with a second party on another network. I do not consider that this is affected in a material way by the regulation in question.

c) the objective encouraging the economically efficient use of, and economically efficient investment, in:

    i) the infrastructure by which listed services are supplied

    ii) any other infrastructure by which listed services are, or are likely to become, capable of being supplied.

This leg of the test addresses the issue in the discussion paper most directly. Thus, it asks: should the current process of negotiation and contracts for setting service quality for NBN Co be replaced by regulation by the ACCC, because regulation would better encourage efficient use of and investment in infrastructure?

This might be the case, for example, if current service levels were too low (or too high) because of negotiation failure—the parties converging on the wrong level, or because of market failure—NBN Co exercising its market power to set them too low (or too high).

Negotiating the service quality levels clearly takes some time and involves RSPs with preferences which no doubt differ. But I can see no reason why they should fail because of the complexity in the negotiations. This has not occurred in the past.

As indicated, I do not find, on the evidence available to me, that a market failure associated with unequal bargaining power has been proven and that regulation of service standards will encourage economically efficient use of, and investment in, infrastructure.

Would such regulation be otherwise appropriate having direct regard to the factors for consideration in making binding rules of conduct or an access determination?

I have examined s.152BDAA and s.152BCA of the Competition and Consumer Act 2010, which specify the matters the ACCC must take into account in respectively, making binding rules of conduct and making an access determination.

It is clear that some form of intervention might contravene the above mentioned sections of the Act. For example, a particular form of intervention might damage NBN's legitimate business interests (matter (b)). Equally, an ill-advised intervention might fail to promote the long-term interests of end user (matter (a)) or hamper the economically

efficient operation of the NBN or carriage services provided over it (matter (g)).

Based on the information available to me, I have concluded, on the basis of my consideration of factors (including the objectives of NBN Co and the bargaining power which it holds), that the regulation of NBN's service quality levels does not satisfy the LTIE test. I do not find that consideration of any of the seven factors in paragraphs (a) to (g) of s.152BDAA and s.152BCA warrants regulatory intervention.

The timing of such regulation, particularly in light of the fact that NBN is in the rollout stage of the NBN (and is approaching peak rollout) and the Government has directed NBN to complete the rollout as soon as possible.

I have noted above the pace of the NBN roll-out, running at 35-40,000 connections a week. The speed of this process must impose a considerable burden on NBN in the provision of skilled labour and in the management of the connections. It is possible that newly installed lines are more liable to faults. This suggests the presence of an inevitable peak demand for inputs necessary to make connections and repair faults during roll-out.

The ACCC's Communications Sector Market Study, Draft Report expresses NBN's wholesale service levels as a cause for concern. It notes:[27]

> "*In particular, we will examine whether there are appropriate incentives for NBN Co to remedy service failures and consider the adequacy of compensation available to service providers to enable them to provide appropriate consumer redress. As NBN Co is*

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[27] ACCC, Communications Sector Market Study, Draft Report, 2017, p. 137.

moving from the rollout phase to delivery of services, risk allocation must also shift to ensure services are delivered to consumers that meet expectations of quality. We will consider whether the proposed allocation of responsibility is appropriate and whether regulatory intervention is necessary, for example, by including service level terms within NBN Co's regulated terms of access."

In my view, this indicates a realistic approach. The NBN has said that it is under practical limitations in the roll-out. Imposing by regulation higher service standards than those adopted in the recent WBA3 might lower the speed and raise the cost of the roll-out. I note that the regulatory situation with respect to broadband is very volatile. The ACCC, the ACMA, and the Government have recently announced or introduced new rules which have only just come into effect, or in some cases are still on the drawing board. The unknown effect of these changes makes it hard to fathom what regulation or removal of regulation may be desirable in the future.

Exhibit 1 – Declaration

I declare that I have made all the inquiries that I believe are desirable and appropriate and that no matters of significance that I regard as relevant have, to my knowledge, been withheld from the ACCC or the Court.

Martin Cave

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Martin Cave

28 February 2018

Exhibit 2 - Curriculum vitae of Professor Martin Cave, B.A., BPhil, DPhil

Martin Cave is an economist specialising in the regulation of network industries, particularly in the communications sector, and the application of competition law. He is currently a visiting professor at the London School of Economics, and formerly held chairs at Brunel University (in the Department of Economics), at Warwick University (in the Business School) and at the LSE (in the Department of Law). From 2012 to 2018 he was successively a deputy chair at the UK Competition Commission and deputy panel chair at the Competition and Markets Authority. He has written a number of books and papers on regulation, and has advised governments, regulators and firms in many countries in Africa, Asia, Australasia, Europe, and North and South America.

Date of Birth : 13 December 1948

Education

BA, First Class, Philosophy, Politics and Economics, Balliol College, University of Oxford, 1969

BPhil in Economics, Nuffield College, University of Oxford, 1971

DPhil, Nuffield College, University of Oxford, 1977

Principal Academic Employment

1974 to 2001 Lecturer, Senior Lecturer and Professor of Economics, Dean of the Faculty of Social Sciences, Pro-Vice Chancellor and Vice-Principal (Deputy Vice Chancellor), Brunel University.

2001 to 2010	Professor and Director, Centre for Management under Regulation, Warwick Business School, University of Warwick.
2010 to 2011	BP Centennial Professor, London School of Economics and Political Science.
2011 to 2017	Visiting Professor, Imperial College Business School, London.
2018 to 2021	Visiting Professor, Law Department, London School of Economics.

Principal Public Sector Advisory and Other Activities

From January 2012 to January 2018 I was successively **deputy chair of Competition Commission** and **deputy panel chair of the Competition and Markets Authority**. My role was to chair merger inquiries, market investigations and regulatory appeals.

I have conducted a number of independent reviews for the UK Government, as follows:

- Appointed by the **Chancellor of the Exchequer and the Secretary of State for Trade and Industry** to conduct an independent review of radio spectrum Management 2001-02.

- Appointed by the **Chancellor of Exchequer** to conduct an independent audit of major spectrum holdings, 2004-05.

- Appointed by **Secretary of State for Communities and Local Government** to undertake an independent review of the regulation of social housing, 2006-07.

- Appointed by the **Chancellor of the Exchequer and the Secretary of State for DEFRA** to conduct an independent review of competition and innovation in the water sector, 2009-10.

- Appointed by the **Secretary of State for Transport** to chair an expert panel on airport regulation, 2008-09.

Also:

-Member, panel advising **UK Government** on spectrum valuation, 2014/5.

-Member, panel advising **French Government** on fibre policy, 2013/14.

-Consultant to the **UK Office of Railway Regulation** on competitive and contestable regulation, 2010-11.

-Regulatory adviser to **Hooper review** of Royal Mail, 2008.

-Member, **UK Payments Council**, 2006-2011; Acting Chair, Nov 2009-April 2010.

-Special adviser to **European Commissioner Reding** on the reform of European telecommunications regulation, 2006.

-Adviser to **Lord Chancellor's Department** on reforms in legal regulation 2004-2005.

-Economic Advisor to **Ofcom,** 2003-2006.

-Non-Executive Advisory Director at **OFWAT**, 2001-2005.

-Member, **MMC/Competition Commission**, 1996-2002.

-Adviser to **Oftel**, 1990-2000.

-Economic Adviser, part-time, **at HM Treasury**, 1986-90.

I am joint academic director, at the **Centre on Regulation in Europe (CERRE**), a Brussels-based think tank.

Selected Publications since 2000

Selected books, reports etc.

(with Richard Feasey) *European Policy towards Competition in High Speed Broadband in Europe,* CERRE, March 2017. Available at http://www.cerre.eu/sites/cerre/files/170220_CERRE_BroadbandReport_Final.pdf

(with W Webb) *Spectrum Management: Using the Airwaves for Maximum Social and Economic Benefit,* Cambridge University Press, 2015.

(with R. Baldwin and M. Lodge) *Understanding Regulation*, Oxford University Press, 2nd edition, 2012.

(edited with R Baldwin and M Lodge) *Oxford Handbook on Regulation,* Oxford University Press, 2010.

Independent Review of Competition and Innovation in the England & Wales Water Industry, 2009.

(with C. Doyle and W. Webb), *Essentials of Modern Spectrum Management*, Cambridge University Press, 2007.

Every Tenant Matters, Department of Communities and Local Government, 2007.

(edited with S Majumdar and I Vogelsang) *Handbook of Telecommunications Economics*, vols. 1 and 2, Elsevier, 2002 and 2005.

(with Anthony Carey et al.) *Accounting for regulation in UK utilities*, ICA, 1994.

<u>*Selected articles and chapters in books*</u>

(with Ernesto Flores-Roux) 'Co-ordinating policies to realize the benefits from the digital economy: the case of Mexico', *Anti-trust Bulletin,* 2017.

(with Rob Nicholls) 'The use of spectrum auctions to attain multiple objectives: policy implications,' *Telecommunications Policy*, 2017.

(with William Webb) 'Engineering competition through spectrum policy: previous approaches and why 5G needs change', *Antitrust Bulletin*, Vol. 3 November 2016, pp. 27-31.

'40 years on: an account of innovation in the regulation of UK telecommunications, in three and a half chapters', *Telecommunications Policy*, 2017.

(with Neil Pratt) 'Taking account of service externalities when spectrum is allocated and assigned', *Telecommunications Policy*, Vol 40, pp. 971-981, 2016.

(with Tony Shortall) 'How incumbents can shape technological choice and market structure – the case of fixed broadband in Europe', *info*, **18**:2, 2016.

(with Ingo Vogelsang) 'Net neutrality: an EU/US comparison', *CPI,* 11 (1) pp. 85-95, 2015.

(with Tony Shortall) 'Is symmetric access regulation a policy choice? Evidence from the deployment of NGA in Europe,' *Communications & Strategies,* 98, 2015, pp.17-42.

'The ladder of investment in Europe: in retrospect and prospect', *Telecommunications Policy*, 2014, vol 38 (8-9) pp. 674-683.

'On the relationship between media plurality legislation and competition law,' *CPI Antitrust Chronicle***,** April 2014 (1).

‘Extending competition in network industries: can input markets circumvent the need for an administered access regime?’ *Utilities Policy*, 27 (2013) 82-92.

(with Jon Stern) ‘Economics and the development of systems operators in infrastructure industries’, *Utilities Policy*, 26 (2013) 56-66.

(with Janet Wright)’ The development of upstream competition in the England and Wales water industry’, *Intereconomics*, 48 (3) May/June 2013.

(with Richard Collins), ‘Media pluralism and the overlapping instruments needed to achieve it,’ *Telecommunications Policy* 37 (2013) 311–320.

‘How strong is the case for the fiscal exceptionalism of the telecommunications sector?’ *Int. J. Management and Network Economics,* Vol. 2, No. 4, 2012.

(with William Webb) ‘The unfinished history of usage rights for spectrum’, *Telecommunications Policy,* 36 (2012) pp.293-300.

(with Janet Wright) ‘Benefiting business without harming households: the impact on consumers of upstream market reforms in the water sector’, *Utilities Law Review*, 19 (2012), pp. 43-50.

‘Policy and regulation for next generation networks’, in G R Faulhaber et al. *Regulation and the Performance of Communication and Information Networks*, Edward Elgar, 2012, pp.115-139.

(with Peter Crowther) ‘Regulating access to content in the European Union’, *Journal of Law and Economic Regulation*, 4 (1), 2011, pp 133-150.

(with Pietro Crocioni) ‘Net neutrality in Europe’, *Communications and Convergence Review, 2011,* pp. 57-71.

(with Tony Shortall) ‘The extended gestation and birth of the European Commission’s Recommendation on the regulation of fibre networks’, *INFO*, 2011,13 (5) pp. 3-18.

(with Matthew Corkery) ‘Regulation and barriers to trade in telecommunications services in the European Union’, in V Ghosal (ed), *Reforming Rules and Regulations: Laws, Institutions and Implementation,* MIT Press 2011, pp. 195-214.

(with Ian Martin) “Motives and means for public investment in nationwide next generation networks” *Telecommunications policy*, 34 (2010) pp 505-512.

“Anti-competitive behaviour in spectrum markets: analysis and response” *Telecommunications Policy*, 34 (2010) 251-261.

(with Janet Wright) ‘A strategy for introducing competition in the water sector’ *Utilities Policy*, 2010, pp 116-119.

‘Snakes and ladders: unbundling in a next generation world’ *Telecommunications Policy*, 2010 pp 81-6.

‘Transforming telecommunications technologies: policy and regulation’ *Oxford Review of Economic Policy,* 2009 (4) pp 488-505.

“La regolamentazione delle reti di nuova generazione”, *mercato concorrenza regole*, (3) 2009, pp543-558.

(with Jos Huigen) “Regulation and the promotion of investment in next generation networks- a European dilemma” *Telecommunications Policy*, Vol 28, no11, 2008, pp713-721.

“Market-based methods of spectrum management in the UK and the European Union” *Telecommunications Journal of Australia*, November 2007, Vol 58, No 2-3, pp 24.1-24.11.

(with K Hatta) “Universal service obligations and spectrum policy” *INFO*, Vol 10, No 5/6, 2007, pp59-69.

(with F Erbetta) ‘Regulation and efficiency incentives: evidence from the England and Wales water industry’, *Review of Network Economics*, 6(4), 2007, pp 425-452.

“Encouraging infrastructure competition via the ladder of investment”, *Telecommunications Policy,* April 2006, pp 223-237.

“Six degrees of separation: operational separation as a remedy in European telecommunications regulation”, *Communications and Strategies*, No. 3, 2006.

“Regulating for non-price discrimination: the case of UK fixed telecoms”. *Competition and Regulation in Network Industries*, Volume 1 (2006), No. 3, 391-415.

(with L. Prosperetti and C. Doyle) “Where are we going? Technologies, markets and long range public policy issues in European Communications, *Information Economics and Policy*, 18 (3) 2006, pp. 242-255.

‘Competition and the exercise of market power in broadcasting: a review of recent UK experience’, *INFO* 5, 2005, pp. 20-8.

(with P. Crowther) ‘Pre-emptive competition policy meets regulatory anti-trust’ *European Competition Law Review,* Vol. 26, 9, 2005, pp. 481-490.

(with R. Baldwin and K. Malleson) ‘Regulating Legal Services: Time for the Big Bang?’ *The Modern Law Review*, Vol 67, 5, 2004, pp 787-815.

(with I. Vogelsang) ‘How access pricing and entry interact’ *Telecommunications Policy,* Vol. 27, November/December 2003 pp 717-728.

‘Voucher programmes and their role in distributing public services’, *OECD Journal on Budgeting,* volume 1 no. 1. OECD, 2001, pp 59-88.

(with R. Crandall) ‘Sports rights and the broadcasting Industry’, *Economic Journal*, Feb 2001, pp f4 – f26.

Exhibit 3 – Brief to advise

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26 February 2018

Martin Cave
Visiting Professor
Imperial College Business School
Imperial College London
South Kensington Campus
London SW7 2AZ
United Kingdom

By email:

Dear Martin

Expert report on certain aspects of NBN Co Limited's wholesale service levels

We act for NBN Co Limited (**nbn**), the entity that will construct, own and operate the National Broadband Network (**NBN**) in Australia.

On 2 November 2017, the ACCC announced a public inquiry into **nbn**'s wholesale service standards (**Service Standards Inquiry**).

The ACCC has launched the Service Standards Inquiry to determine whether it should regulate **nbn**'s non-price related terms and conditions including its service level commitments, whether in the short term or in the medium to long term.

We wish to retain you as an independent economic expert to provide your opinion in an expert report in relation to certain aspects relating to **nbn**'s wholesale service standards. We have set out the specific issues that we require you to address within your expert report below.

nbn's intention is that your expert report will be provided to the ACCC as a supporting document to accompany **nbn**'s own submission.

Specific questions to be addressed in your expert report

We request your independent advice on the following questions:

1. As a wholesale-only company operating under an **nbn** specific regulatory framework (which is expected to be further evolved under current Government policy), and given the level of investment and the challenges associated with a project of this size and the level of parliamentary and Government oversight and direction which **nbn** is subject to, does **nbn** have sufficient incentives in respect of the contracted wholesale service level commitments it offers over time to encourage RSPs to connect end users to the National Broadband Network and purchase **nbn**'s wholesale services?

2. What is **nbn**'s bargaining power relative to the bargaining positions of RSPs? Do RSPs have countervailing power which would lead to the negotiation of contracted service level commitments that would result in competitive and efficient market outcomes?

3. Do RSPs have incentives to "pass through" **nbn**'s wholesale service level commitments down the supply chain in their retail agreements with end users. Do RSPs face any impediments to such "pass through"? If pass-through is not evident, what effect will this have on the appropriateness of wholesale regulation (if any) of service levels?

4. Contrasted with the setting of service levels through private contract, would the regulation of **nbn**'s wholesale service levels by the ACCC through binding rules of conduct or an access determination promote the long term interests of end users, and would such regulation be otherwise appropriate having direct regard to the factors for consideration in making binding rules of conduct or an access determination as set out in section 152BDAA and section 152BCA of the CCA? Can you also consider the timing of such regulation, particularly in light of the fact that **nbn** is in the rollout stage of the NBN (and is approaching peak rollout) and the Government has directed **nbn** to complete the rollout as soon as possible.

We have provided background documents to assist with the preparation of your report at **Attachment 1-12**.

Federal court rules on expert witnesses

Your report should be prepared subject to, and in accordance with *Practice Note CM 7 - Expert witnesses in proceedings in the Federal Court of Australia* (GPN-EXPT). You should review these carefully to familiarise yourself with these rules.

A copy is attached at **Attachment 13**.

Yours sincerely

Webb Henderson

Angus Henderson
Partner

Attachment 1 – ACCC Service Standards Inquiry Discussion Paper

Provided separately

Attachment 2 – s.152BDAA of the *Competition and Consumer Act 2010* (Commonwealth)

152BDAA Matters that the Commission must take into account

(1) The Commission must take the following matters into account in making binding rules of conduct:

(a) whether the binding rules of conduct will promote the long-term interests of end-users of carriage services or of services supplied by means of carriage services;

(b) the legitimate business interests of a carrier or carriage service provider who supplies, or is capable of supplying, the declared service, and the carrier's or provider's investment in facilities used to supply the declared service;

(c) the interests of all persons who have rights to use the declared service;

(d) the direct costs of providing access to the declared service;

(e) the value to a person of extensions, or enhancement of capability, whose cost is borne by someone else;

(f) the operational and technical requirements necessary for the safe and reliable operation of a carriage service, a telecommunications network or a facility;

(g) the economically efficient operation of a carriage service, a telecommunications network or a facility.

(2) If a carrier or carriage service provider who supplies, or is capable of supplying, the declared service supplies one or more other eligible services, then, in making binding rules of conduct that are applicable to the carrier or provider, as the case may be, the Commission may take into account:

(a) the characteristics of those other eligible services; and

(b) the costs associated with those other eligible services; and

(c) the revenues associated with those other eligible services; and

(d) the demand for those other eligible services.

(3) The Commission may take into account any other matters that it thinks are relevant.

(4) The Commission is not required by subsection (1) or (2) to take a matter into account if it is not reasonably practicable for the Commission to do so, having regard to the urgent need to make the binding rules of conduct.

(5) For the purposes of taking a particular matter into account under this section, the Commission is not required to obtain information, or further information, that is not already in the possession of the Commission if it is not reasonably practicable for the Commission to do so, having regard to the urgent need to make the binding rules of conduct.

(6) In this section:

eligible service has the same meaning as in section 152AL.

Attachment 3 – s.152BCA of the *Competition and Consumer Act 2010* (Commonwealth)

152BCA Matters that the Commission must take into account

(1) The Commission must take the following matters into account in making an access determination:

(a) whether the determination will promote the long-term interests of end-users of carriage services or of services supplied by means of carriage services;

(b) the legitimate business interests of a carrier or carriage service provider who supplies, or is capable of supplying, the declared service, and the carrier's or provider's investment in facilities used to supply the declared service;

(c) the interests of all persons who have rights to use the declared service;

(d) the direct costs of providing access to the declared service;

(e) the value to a person of extensions, or enhancement of capability, whose cost is borne by someone else;

(f) the operational and technical requirements necessary for the safe and reliable operation of a carriage service, a telecommunications network or a facility;

(g) the economically efficient operation of a carriage service, a telecommunications network or a facility.

(2) If a carrier or carriage service provider who supplies, or is capable of supplying, the declared service supplies one or more other eligible services, then, in making an access determination that is applicable to the carrier or provider, as the case may be, the Commission may take into account:

(a) the characteristics of those other eligible services; and

(b) the costs associated with those other eligible services; and

(c) the revenues associated with those other eligible services; and

(d) the demand for those other eligible services.

(3) The Commission may take into account any other matters that it thinks are relevant.

(4) This section does not apply to an interim access determination.

(5) In this section:

eligible service has the same meaning as in section 152AL.

Attachment 4 – s.152AB of the *Competition and Consumer Act 2010* (Commonwealth)

152AB Object of this Part

Object

(1) The object of this Part is to promote the long-term interests of end-users of carriage services or of services provided by means of carriage services.

Promotion of the long-term interests of end-users

(2) For the purposes of this Part, in determining whether a particular thing promotes the long-term interests of end-users of either of the following services (the *listed services*):

(a) carriage services;

(b) services supplied by means of carriage services;

regard must be had to the extent to which the thing is likely to result in the achievement of the following objectives:

(c) the objective of promoting competition in markets for listed services;

(d) the objective of achieving any-to-any connectivity in relation to carriage services that involve communication between end-users;

(e) the objective of encouraging the economically efficient use of, and the economically efficient investment in:

(i) the infrastructure by which listed services are supplied; and

(ii) any other infrastructure by which listed services are, or are likely to become, capable of being supplied.

Subsection (2) limits matters to which regard may be had

(3) Subsection (2) is intended to limit the matters to which regard may be had.

Promoting competition

(4) In determining the extent to which a particular thing is likely to result in the achievement of the objective referred to in paragraph (2)(c), regard must be had to the extent to which the thing will remove obstacles to end-users of listed services gaining access to listed services.

Subsection (4) does not limit matters to which regard may be had

(5) Subsection (4) does not, by implication, limit the matters to which regard may be had.

Encouraging efficient use of infrastructure etc.

(6) In determining the extent to which a particular thing is likely to result in the achievement of the objective referred to in paragraph (2)(e), regard must be had to the following matters:

(a) whether it is, or is likely to become, technically feasible for the services to be supplied and charged for, having regard to:

(i) the technology that is in use, available or likely to become available; and

(ii) whether the costs that would be involved in supplying, and charging for, the services are reasonable or likely to become reasonable; and

(iii) the effects, or likely effects, that supplying, and charging for, the services would have on the operation or performance of telecommunications networks;

(b) the legitimate commercial interests of the supplier or suppliers of the services, including the ability of the supplier or suppliers to exploit economies of scale and scope;

(c) the incentives for investment in:

(i) the infrastructure by which the services are supplied; and

(ii) any other infrastructure by which the services are, or are likely to become, capable of being supplied.

Subsection (6) does not limit matters to which regard may be had

(7) Subsection (6) does not, by implication, limit the matters to which regard may be had.

Investment risks

(7A) For the purposes of paragraph (6)(c), in determining incentives for investment, regard must be had to the risks involved in making the investment.

(7B) Subsection (7A) does not, by implication, limit the matters to which regard may be had.

Achieving any-to-any connectivity

(8) For the purposes of this section, the objective of any-to-any connectivity is achieved if, and only if, each end-user who is supplied with a carriage service that involves communication between end-users is able to communicate, by means of that service, with each other end-user who is supplied with the same service or a similar service, whether or not the end-users are connected to the same telecommunications network.

Attachment 5 – Australian Government Statement of Expectations, issued to nbn on 20 December 2010

Provided separately

Attachment 6 – Australian Government Statement of Expectations, issued to nbn on 24 August 2016

Provided separately

Attachment 7 - Service Level Schedule, nbn™ Ethernet Product Module, Wholesale Broadband Agreement

Provided separately

Attachment 8 – Current Special Access Undertaking as provided to the ACCC on 19 November 2013 and accepted by the ACCC on 13 December 2013.

Provided separately

Attachment 9 – ACCC Final Decision, NBN Co Special Access Undertaking, 13 December 2013

Provided separately

Attachment 10 – nbn submission to the ACCC dated October 2016, in relation to the ACCC Communications Sector Market Study

Provided separately

Attachment 11 – nbn submission to the ACCC dated August 2017, in relation to the ACCC Communications Sector Market Study

Provided separately

Attachment 12 – nbn submission to the ACCC dated December 2017, in relation to the ACCC Communications Sector Market Study

Provided separately

Attachment 13 – Federal Court of Australia Practice Note relating to expert witnesses (GPN-EXPT)

J L B Allsop, Chief Justice 25 October 2016

General Practice Note

1. Introduction

1.1 This practice note, including the *Harmonised Expert Witness Code of Conduct* ("**Code**") (see **Annexure A**) and the *Concurrent Expert Evidence Guidelines* ("**Concurrent Evidence Guidelines**") (see **Annexure B**), applies to any proceeding involving the use of expert evidence and must be read together with:
(a) the Central Practice Note (CPN-1), which sets out the fundamental principles concerning the National Court Framework ("**NCF**") of the Federal Court and key principles of case management procedure;
(b) the Federal Court of Australia Act 1976 (Cth) ("**Federal Court Act**");
(c) the *Evidence Act 1995* (Cth) ("**Evidence Act**"), including Part 3.3 of the Evidence Act;
(d) Part 23 of the Federal Court Rules 2011 (Cth) ("**Federal Court Rules**"); and
(e) where applicable, the Survey Evidence Practice Note (GPN-SURV).
1.2 This practice note takes effect from the date it is issued and, to the extent practicable, applies to proceedings whether filed before, or after, the date of issuing.

2. Approach to Expert Evidence

2.1 An expert witness may be retained to give opinion evidence in the proceeding, or, in certain circumstances, to express an opinion that may be relied upon in alternative dispute resolution procedures such as mediation or a conference of experts. In some circumstances an expert may be appointed as an independent adviser to the Court.
2.2 The purpose of the use of expert evidence in proceedings, often in relation to complex subject matter, is for the Court to receive the benefit of the objective and impartial assessment of an issue from a witness with specialised knowledge (based on training, study or experience - see generally s 79 of the Evidence Act).
2.3 However, the use or admissibility of expert evidence remains subject to the overriding requirements that:
(a) to be admissible in a proceeding, any such evidence must be relevant (s 56 of the Evidence Act); and
(b) even if relevant, any such evidence, may be refused to be admitted by the Court if its probative value is outweighed by other considerations such as the evidence being unfairly prejudicial, misleading or will result in an undue waste of time (s 135 of the Evidence Act).
2.4 An expert witness' opinion evidence may have little or no value unless the assumptions adopted by the expert (ie. the facts or grounds relied upon) and his or her reasoning are expressly stated in any written report or oral evidence given.
2.5 The Court will ensure that, in the interests of justice, parties are given a reasonable opportunity to adduce and test relevant expert opinion evidence. However, the Court expects parties and any legal representatives acting on their behalf, when dealing with expert witnesses and expert evidence, to at all times comply with their duties associated with the overarching purpose in the Federal Court Act (see ss 37M and 37N).

3. Interaction with Expert Witnesses

3.1 Parties and their legal representatives should never view an expert witness retained (or partly retained) by them as that party's advocate or "hired gun". Equally, they should never attempt to pressure or influence an expert into conforming his or her views with the party's interests.
3.2 A party or legal representative should be cautious not to have inappropriate communications when retaining or instructing an independent expert, or assisting an independent expert in the preparation of his or her evidence. However, it is important to note that there is no principle of law or practice and there is nothing in this practice note that obliges a party to embark on the costly task of engaging a "consulting expert" in order to avoid "contamination" of the expert who will give evidence. Indeed the Court would generally discourage such costly duplication.

3.3 Any witness retained by a party for the purpose of preparing a report or giving evidence in a proceeding as to an opinion held by the witness that is wholly or substantially based in the specialised knowledge of the witness[1] should, at the earliest opportunity, be provided with:
(a) a copy of this practice note, including the Code (see Annexure A); and
(b) all relevant information (whether helpful or harmful to that party's case) so as to enable the expert to prepare a report of a truly independent nature.

3.4 Any questions or assumptions provided to an expert should be provided in an unbiased manner and in such a way that the expert is not confined to addressing selective, irrelevant or immaterial issues.

4. Role and Duties of the Expert Witness

4.1 The role of the expert witness is to provide relevant and impartial evidence in his or her area of expertise. An expert should never mislead the Court or become an advocate for the cause of the party that has retained the expert.
4.2 It should be emphasised that there is nothing inherently wrong with experts disagreeing or failing to reach the same conclusion. The Court will, with the assistance of the evidence of the experts, reach its own conclusion.
4.3 However, experts should willingly be prepared to change their opinion or make concessions when it is necessary or appropriate to do so, even if doing so would be contrary to any previously held or expressed view of that expert.

Harmonised Expert Witness Code of Conduct

4.4 Every expert witness giving evidence in this Court must read the *Harmonised Expert Witness Code of Conduct* (attached in Annexure A) and agree to be bound by it.
4.5 The Code is not intended to address all aspects of an expert witness' duties, but is intended to facilitate the admission of opinion evidence, and to assist experts to understand in general terms what the Court expects of them. Additionally, it is expected that compliance with the Code will assist individual expert witnesses to avoid criticism (rightly or wrongly) that they lack objectivity or are partisan.

5. Contents of an Expert's Report and Related Material

5.1 The contents of an expert's report must conform with the requirements set out in the Code (including clauses 3 to 5 of the Code).
5.2 In addition, the contents of such a report must also comply with r 23.13 of the Federal Court Rules. Given that the requirements of that rule significantly overlap with the requirements in the Code, an expert, unless otherwise directed by the Court, will be taken to have complied with the requirements of r 23.13 if that expert has complied with the requirements in the Code and has complied with the additional following requirements. The expert shall:
(a) acknowledge in the report that:

(i) the expert has read and complied with this practice note and agrees to be bound by it; and

(ii) the expert's opinions are based wholly or substantially on specialised knowledge arising from the expert's training, study or experience;

(b) identify in the report the questions that the expert was asked to address;

(c) sign the report and attach or exhibit to it copies of:

(i) documents that record any instructions given to the expert; and

(ii) documents and other materials that the expert has been instructed to consider.

5.3 Where an expert's report refers to photographs, plans, calculations, analyses, measurements, survey reports or other extrinsic matter, these must be provided to the other parties at the same time as the expert's report.

6. Case Management Considerations

6.1 Parties intending to rely on expert evidence at trial are expected to consider between them and inform the Court at the earliest opportunity of their views on the following:
(a) whether a party should adduce evidence from more than one expert in any single discipline;

(b) whether a common expert is appropriate for all or any part of the evidence;

(c) the nature and extent of expert reports, including any in reply;

(d) the identity of each expert witness that a party intends to call, their area(s) of expertise and availability during the proposed hearing;

(e) the issues that it is proposed each expert will address;

(f) the arrangements for a conference of experts to prepare a joint-report (see Part 7 of this practice note);

(g) whether the evidence is to be given concurrently and, if so, how (see Part 8 of this practice note); and

(h) whether any of the evidence in chief can be given orally.

6.2 It will often be desirable, before any expert is retained, for the parties to attempt to agree on the question or questions proposed to be the subject of expert evidence as well as the relevant facts and assumptions. The Court may make orders to that effect where it considers it appropriate to do so.

7. Conference of Experts and Joint-report

7.1 Parties, their legal representatives and experts should be familiar with aspects of the Code relating to conferences of experts and joint-reports (see clauses 6 and 7 of the Code attached in Annexure A).
7.2 In order to facilitate the proper understanding of issues arising in expert evidence and to manage expert evidence in accordance with the overarching purpose, the Court may require experts who are to give evidence or who have produced reports to meet for the purpose of identifying and addressing the issues not agreed between them with a view to reaching agreement where this is possible ("conference of experts"). In an appropriate case, the Court may appoint a registrar of the Court or some other suitably qualified person ("Conference Facilitator") to act as a facilitator at the conference of experts.
7.3 It is expected that where expert evidence may be relied on in any proceeding, at the earliest opportunity, parties will discuss and then inform the Court whether a conference of experts and/or a joint-report by the experts may be desirable to assist with or simplify the giving of expert evidence in the proceeding. The parties should discuss the necessary arrangements for any conference and/or joint-report. The arrangements discussed between the parties should address:
(a) who should prepare any joint-report;

(b) whether a list of issues is needed to assist the experts in the conference and, if so, whether the Court, the parties or the experts should assist in preparing such a list;

(c) the agenda for the conference of experts; and
(d) arrangements for the provision, to the parties and the Court, of any joint-report or any other report as to the outcomes of the conference ("**conference report**").

Conference of Experts

7.4 The purpose of the conference of experts is for the experts to have a comprehensive discussion of issues relating to their field of expertise, with a view to identifying matters and issues in a proceeding about which the experts agree, partly agree or disagree and why. For this reason the conference is attended only by the experts and any Conference Facilitator. Unless the Court orders otherwise, the parties' lawyers will not attend the conference but will be provided with a copy of any conference report.
7.5 The Court may order that a conference of experts occur in a variety of circumstances, depending on the views of the judge and the parties and the needs of the case, including:

(a) while a case is in mediation. When this occurs the Court may also order that the outcome of the conference or any document disclosing or summarising the experts' opinions be confidential to the parties while the mediation is occurring;

(b) before the experts have reached a final opinion on a relevant question or the facts involved in a case. When this occurs the Court may order that the parties exchange draft expert reports and that a conference report be prepared for the use of the experts in finalising their reports;

(c) after the experts' reports have been provided to the Court but before the hearing of the experts' evidence. When this occurs the Court may also order that a conference report be prepared (jointly or otherwise) to ensure the efficient hearing of the experts' evidence.

7.6 Subject to any other order or direction of the Court, the parties and their lawyers must not involve themselves in the conference of experts process. In particular, they must not seek to encourage an expert not to agree with another expert or otherwise seek to influence the outcome of the conference of experts. The experts should raise any queries they may have in relation to the process with the Conference Facilitator (if one has been appointed) or in accordance with a protocol agreed between the lawyers prior to the conference of experts taking place (if no Conference Facilitator has been appointed).
7.7 Any list of issues prepared for the consideration of the experts as part of the conference of experts process should be prepared using non-tendentious language.
7.8 The timing and location of the conference of experts will be decided by the judge or a registrar who will take into account the location and availability of the experts and the Court's case management timetable. The conference may take place at the Court and will usually be conducted in-person. However, if not considered a hindrance to the process, the conference may also be conducted with the assistance of visual or audio technology (such as via the internet, video link and/or by telephone).
7.9 Experts should prepare for a conference of experts by ensuring that they are familiar with all of the material upon which they base their opinions. Where expert reports in draft or final form have been exchanged prior to the conference, experts should attend the conference familiar with the reports of the other experts. Prior to the conference, experts should also consider where they believe the differences of opinion lie between them and what processes and discussions may assist to identify and refine those areas of difference.

Joint-report

7.10 At the conclusion of the conference of experts, unless the Court considers it unnecessary to do so, it is expected that the experts will have narrowed the issues in respect of which they agree, partly agree or disagree in a joint-report. The joint-report should be clear, plain and concise and should summarise the views of the experts on the identified issues, including a succinct explanation for any differences of opinion, and otherwise be structured in the manner requested by the judge or registrar.
7.11 In some cases (and most particularly in some native title cases), depending on the nature, volume and complexity of the expert evidence a judge may direct a registrar to draft part, or all, of a conference report. If so, the registrar will usually provide the draft conference report to the relevant experts and seek their confirmation that the conference report accurately reflects the opinions of the experts expressed at the conference. Once that confirmation has been received the registrar will finalise the conference report and provide it to the intended recipient(s).

8. Concurrent Expert Evidence

8.1 The Court may determine that it is appropriate, depending on the nature of the expert evidence and the proceeding generally, for experts to give some or all of their evidence concurrently at the final (or other) hearing.
8.2 Parties should familiarise themselves with the *Concurrent Expert Evidence Guidelines* (attached in Annexure B). The Concurrent Evidence Guidelines are not intended to be exhaustive but indicate the circumstances when the Court might consider it appropriate for concurrent expert evidence to take place, outline how that process may be undertaken, and assist experts to understand in general terms what the Court expects of them.
8.3 If an order is made for concurrent expert evidence to be given at a hearing, any expert to give such evidence should be provided with the Concurrent Evidence Guidelines well in advance of the hearing and should be familiar with those guidelines before giving evidence.

9. Further Practice Information and Resources

9.1 Further information regarding Expert Evidence and Expert Witnesses is available on the Court's website.
9.2 Further information to assist litigants, including a range of helpful guides, is also available on the Court's website. This information may be particularly helpful for litigants who are representing themselves.

J L B ALLSOP
Chief Justice
25 October 2016

Annexure A

Harmonised Expert Witness Code of Conduct[2]

Application of Code

1. This Code of Conduct applies to any expert witness engaged or appointed:

(a) to provide an expert's report for use as evidence in proceedings or proposed proceedings; or

(b) to give opinion evidence in proceedings or proposed proceedings.

General Duties to the Court

2. An expert witness is not an advocate for a party and has a paramount duty, overriding any duty to the party to the proceedings or other person retaining the expert witness, to assist the Court impartially on matters relevant to the area of expertise of the witness.

Content of Report

3. Every report prepared by an expert witness for use in Court shall clearly state the opinion or opinions of the expert and shall state, specify or provide:

(a) the name and address of the expert;

(b) an acknowledgment that the expert has read this code and agrees to be bound by it;

(c) the qualifications of the expert to prepare the report;

(d) the assumptions and material facts on which each opinion expressed in the report is based [a letter of instructions may be annexed];

(e) the reasons for and any literature or other materials utilised in support of such opinion;

(f) (if applicable) that a particular question, issue or matter falls outside the expert's field of expertise;

(g) any examinations, tests or other investigations on which the expert has relied, identifying the person who carried them out and that person's qualifications;

(h) the extent to which any opinion which the expert has expressed involves the acceptance of another person's opinion, the identification of that other person and the opinion expressed by that other person;

(i) a declaration that the expert has made all the inquiries which the expert believes are desirable and appropriate (save for any matters identified explicitly in the report), and that no matters of significance which the expert regards as relevant have, to the knowledge of the expert, been withheld from the Court;

(j) any qualifications on an opinion expressed in the report without which the report is or may be incomplete or inaccurate;

(k) whether any opinion expressed in the report is not a concluded opinion because of insufficient research or insufficient data or for any other reason; and

(l) where the report is lengthy or complex, a brief summary of the report at the beginning of the report.

Supplementary Report Following Change of Opinion
4. Where an expert witness has provided to a party (or that party's legal representative) a report for use in Court, and the expert thereafter changes his or her opinion on a material matter, the expert shall forthwith provide to the party (or that party's legal representative) a supplementary report which shall state, specify or provide the information referred to in paragraphs (a), (d), (e), (g), (h), (i), (j), (k) and (l) of clause 3 of this code and, if applicable, paragraph (f) of that clause.

5. In any subsequent report (whether prepared in accordance with clause 4 or not) the expert may refer to material contained in the earlier report without repeating it.

Duty to Comply with the Court's Directions
6. If directed to do so by the Court, an expert witness shall:

(a) confer with any other expert witness;

(b) provide the Court with a joint-report specifying (as the case requires) matters agreed and matters not agreed and the reasons for the experts not agreeing; and

(c) abide in a timely way by any direction of the Court.

Conference of Experts
7. Each expert witness shall:

(a) exercise his or her independent judgment in relation to every conference in which the expert participates pursuant to a direction of the Court and in relation to each report thereafter provided, and shall not act on any instruction or request to withhold or avoid agreement; and

(b) endeavour to reach agreement with the other expert witness (or witnesses) on any issue in dispute between them, or failing agreement, endeavour to identify and clarify the basis of disagreement on the issues which are in dispute.

Annexure B
Concurrent Expert Evidence Guidelines

Application of the Court's Guidelines
1. The Court's Concurrent Expert Evidence Guidelines ("**Concurrent Evidence Guidelines**")are intended to inform parties, practitioners and experts of the Court's general approach to concurrent expert evidence, the circumstances in which the Court might consider expert witnesses giving evidence concurrently and, if so, the procedures by which their evidence may be taken.
Objectives of Concurrent Expert Evidence Technique
2. The use of concurrent evidence for the giving of expert evidence at hearings as a case management technique[3] will be utilised by the Court in appropriate circumstances (see r 23.15 of the Federal Court Rules 2011 (Cth)). Not all cases will suit the process. For instance, in some patent cases, where the entire case revolves around conflicts within fields of expertise, concurrent evidence may not assist a judge. However, patent cases should not be excluded from concurrent expert evidence processes.
3. In many cases the use of concurrent expert evidence is a technique that can reduce the partisan or confrontational nature of conventional hearing processes and minimises the risk that experts become "opposing experts" rather than independent experts assisting the Court. It can elicit more precise and accurate expert evidence with greater input and assistance from the experts themselves.

4. When properly and flexibly applied, with efficiency and discipline during the hearing process, the technique may also allow the experts to more effectively focus on the critical points of disagreement between them, identify or resolve those issues more quickly, and narrow the issues in dispute. This can also allow for the key evidence to be given at the same time (rather than being spread across many days of hearing); permit the judge to assess an expert more readily, whilst allowing each party a genuine

opportunity to put and test expert evidence. This can reduce the chance of the experts, lawyers and the judge misunderstanding the opinions being expressed by the experts.

5. It is essential that such a process has the full cooperation and support of all of the individuals involved, including the experts and counsel involved in the questioning process. Without that cooperation and support the process may fail in its objectives and even hinder the case management process.

Case Management
6. Parties should expect that, the Court will give careful consideration to whether concurrent evidence is appropriate in circumstances where there is more than one expert witness having the same expertise who is to give evidence on the same or related topics. Whether experts should give evidence concurrently is a matter for the Court, and will depend on the circumstances of each individual case, including the character of the proceeding, the nature of the expert evidence, and the views of the parties.

7. Although this consideration may take place at any time, including the commencement of the hearing, if not raised earlier, parties should raise the issue of concurrent evidence at the first appropriate case management hearing, and no later than any pre-trial case management hearing, so that orders can be made in advance, if necessary. To that end, prior to the hearing at which expert evidence may be given concurrently, parties and their lawyers should confer and give general consideration as to:

(a) the agenda;

(b) the order and manner in which questions will be asked; and

(c) whether cross-examination will take place within the context of the concurrent evidence or after its conclusion.

8. At the same time, and before any hearing date is fixed, the identity of all experts proposed to be called and their areas of expertise is to be notified to the Court by all parties.

9. The lack of any concurrent evidence orders does not mean that the Court will not consider using concurrent evidence without prior notice to the parties, if appropriate.

Conference of Experts & Joint-report or List of Issues
10. The process of giving concurrent evidence at hearings may be assisted by the preparation of a joint-report or list of issues prepared as part of a conference of experts.

11. Parties should expect that, where concurrent evidence is appropriate, the Court may make orders requiring a conference of experts to take place or for documents such as a joint-report to be prepared to facilitate the concurrent expert evidence process at a hearing (see Part 7 of the Expert Evidence Practice Note).

Procedure at Hearing
12. Concurrent expert evidence may be taken at any convenient time during the hearing, although it will often occur at the conclusion of both parties' lay evidence.

13. At the hearing itself, the way in which concurrent expert evidence is taken must be applied flexibly and having regard to the characteristics of the case and the nature of the evidence to be given.

14. Without intending to be prescriptive of the procedure, parties should expect that, when evidence is given by experts in concurrent session:

(a) the judge will explain to the experts the procedure that will be followed and that the nature of the process may be different to their previous experiences of giving expert evidence;

(b) the experts will be grouped and called to give evidence together in their respective fields of expertise;

(c) the experts will take the oath or affirmation together, as appropriate;

(d) the experts will sit together with convenient access to their materials for their ease of reference, either in the witness box or in some other location in the courtroom, including (if necessary) at the bar table;

(e) each expert may be given the opportunity to provide a summary overview of their current opinions and explain what they consider to be the principal issues of disagreement between the experts, as they see them, in their own words;

(f) the judge will guide the process by which evidence is given, including, where appropriate:

(i) using any joint-report or list of issues as a guide for all the experts to be asked questions by the judge and counsel, about each issue on an issue-by-issue basis;

(ii) ensuring that each expert is given an adequate opportunity to deal with each issue and the exposition given by other experts including, where considered appropriate, each expert asking questions of other experts or supplementing the evidence given by other experts;

(iii) inviting legal representatives to identify the topics upon which they will cross-examine;

(iv) ensuring that legal representatives have an adequate opportunity to ask all experts questions about each issue. Legal representatives may also seek responses or contributions from one or more experts in response to the evidence given by a different expert; and

(v) allowing the experts an opportunity to summarise their views at the end of the process where opinions may have been changed or clarifications are needed.

15. The fact that the experts may have been provided with a list of issues for consideration does not confine the scope of any cross-examination of any expert. The process of cross-examination remains subject to the overall control of the judge.

16. The concurrent session should allow for a sensible and orderly series of exchanges between expert and expert, and between expert and lawyer. Where appropriate, the judge may allow for more traditional cross-examination to be pursued by a legal representative on a particular issue exclusively with one expert. Where that occurs, other experts may be asked to comment on the evidence given.

17. Where any issue involves only one expert, the party wishing to ask questions about that issue should let the judge know in advance so that consideration can be given to whether arrangements should be made for that issue to be dealt with after the completion of the concurrent session. Otherwise, as far as practicable, questions (including in the form of cross-examination) will usually be dealt with in the concurrent session.

18. Throughout the concurrent evidence process the judge will ensure that the process is fair and effective (for the parties and the experts), balanced (including not permitting one expert to overwhelm or overshadow any other expert), and does not become a protracted or inefficient process.

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[1] Such a witness includes a "Court expert" as defined in r 23.01 of the Federal Court Rules. For the definition of "expert", "expert evidence" and "expert report" see the Dictionary, in Schedule 1 of the Federal Court Rules.

[2] Approved by the Council of Chief Justices' Rules Harmonisation Committee

[3] Also known as the "hot tub" or as "expert panels".