



Recent conversations about NBN pricing, write-downs, value and privatisation indicate that there is confusion about the links between these concepts. Here, we explain what matters in relation to write-downs and pricing, and why both sides to the debate have a point.

## Write-downs and market constraints

The NBN has faced a slew of criticisms in recent months. Retail service providers (RSPs), the latest Telstra<sup>i</sup>, have criticised NBN Co's pricing, suggesting that wholesale services are simply too expensive. Aussie Broadband plans to remove cheaper services, suggesting that customers may be better served by mobile broadband. And Amaysim has exited its fixed line business, citing poor NBN economics.

There are also ongoing calls for an asset write-down, sparked somewhat by a claim by ratings agency S&P Global Ratings that a write-down of assets is "inevitable". The implication is that a write-down of NBN assets might then afford NBN Co the headroom to lower prices. More recently, JP Morgan said that the NBN needed a \$20 billion write-down to allow low prices to provide Australians with low cost internet and improve telcos' margins,<sup>ii</sup> while Aussie Broadband MD Phil

Britt stated that a write-down is the only way to make 100Mbps more affordable.<sup>iii</sup> Would this work in reality?

According to the Department of Communications, things are more complicated. Secretary Mr Mike Mrdak stated that:

*"[A potential] asset write-down would reflect the value of the entity, whereas the pricing strategy is actually quite a different business decision in relation to the revenue and the rollout of the network. I think people are somewhat confused that there is a direct relationship between the asset valuation and the pricing strategy and the revenue of the company. That's not the case."<sup>iv</sup>*

This correctly makes the distinction between pricing and the accounting recording of asset values (book values). NBN's accounts record the value of assets, but the relationship is one way between asset values and prices – writing down the value of assets can be a result of price and revenue falls, but not a cause of them.

If that was the end, this would indeed be a short bulletin. However, asset values do actually matter to pricing of regulated firms like NBN Co – because regulation relies on determining an asset value which feeds into prices.

## The regulatory connection between asset values and prices

NBN Co's *regulatory* constraints include an overall revenue constraint that reflects NBN Co's costs incurred. This is the connection between recorded asset values and the prices NBN Co can charge.

Under the Long Term Revenue Constraint Methodology the revenues of NBN Co are constrained in a typical "building block" manner. Revenue allowances provide for NBN Co to recover cost building blocks including a rate of return on its regulatory asset base (RAB), operating expenses, and depreciation.

In this way, NBN Co's costs incurred do include a return on the value of assets<sup>v</sup>, and therefore asset values may matter to regulatory pricing constraints.

NBN Co's RAB has two components – one reflecting normal unrecovered capital costs and another reflecting its large accumulated losses (Initial Cost Recovery Account, or ICRA). As of June 2018, the sum of the two components had reached close to \$40 billion.<sup>vi</sup> To reduce the ICRA, NBN Co needs enough revenue to cover its annual revenue allowance *and* the interest that accrues on the ICRA. Until the ICRA is depleted, the building block allowance won't constrain the revenue NBN Co can earn.

In fact, according to NBN Co's analysis, recovery of the ICRA won't happen. NBN Co's accumulated losses are growing at a rate that outstrips its current and future ability to recover them. Our indicative modelling suggests that the ICRA alone will reach around \$70 billion by 2039-40.

## A write-down is already implied...

While NBN Co CEO Mr Stephen Rue considers the term 'write down' to have a very special meaning,<sup>vii</sup> it can have two meanings: an *accounting* write-down reflecting a reduction in future cashflows, or a *regulatory* write-down, which may be proposed for various reasons.<sup>viii</sup>

NBN Co's own forecasts say that a write-down of the *regulatory* value of assets is coming. Market constraints - customers' willingness to pay for broadband, and the (fixed or wireless) options those customers can switch to - mean that while past losses are being rolled forward at the risk free rate plus 3.5% (around 6% at present), even NBN Co's forecasts only produce a rate of return of 3.2%.<sup>ix</sup> If undertaken in 2022 (rollout completion), a \$25 billion write-down would facilitate NBN Co earning a 6% return (the kind of rate of return that would be demanded by a commercial investor on this sort of asset).

## ...but will be bigger

NBN's large (and growing) allowed regulatory value (the RAB including ICRA already discussed) means there is little regulatory constraint on NBN's current pricing.<sup>x</sup> In fact, it is market constraints that are the primary concern in pricing.

Since NBN Co is not constrained by revenue allowances, even a write-down of regulatory asset value may not reduce allowable revenues and prices. However, there most certainly will be a direct relationship if a write-down of the regulatory value (the RAB plus ICRA) is large enough. In turn, this will cause a write-down of the accounting value.



And, in this, the critics are right; write-downs are no red herring. If one accepts that the current regulatory arrangements provide insufficient pricing certainty, and are not reflective of commercial reality which jeopardises the long-term take up of its fixed broadband services, then a *regulatory* write-down could:

- relieve short term financial pressure and support lower prices to RSPs and greater take up by their customers – and help stave off competition from mobiles;
- eliminate or greatly reduce the impact of subsidies for non-commercial infrastructure (particularly satellite services) which NBN Co is trying to recover in commercial pricing; and
- allow NBN Co to earn a commercial return making it a better understood and more attractive future asset.

The difficult decision is how to calculate the size of the write-down. The most obvious benchmark is that the residual value needs to (be low enough to) support a long-term price that is consistent with avoiding inefficient bypass of the NBN by mobile operators or new wireless entrants. This requires more than a little skill. Ultimately, however, it is worth pursuing to provide a solid foundation to maximise the NBN's economic and social value.

## Contact Us

Frontier Economics has been providing independent advice to businesses, regulators and governments for 20 years. From offices in Australia and Singapore, our team has a diverse range of skills and experiences to support the needs of our clients. This includes specialist econometricians and modellers.

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<sup>i</sup> Telstra CEO Andy Penn called for a “more than \$20” cut to wholesale prices in the Telstra Annual General Meeting, 16 October 2018.

<sup>ii</sup> The Australian, 6 February 2018.

<sup>iii</sup> Reddit “Ask Me Anything” forum, 12 February 2019.

<sup>iv</sup> Environment and Communications Legislation Committee Estimates hearing, 23 October 2018.

<sup>v</sup> The return on capital is the Regulatory Asset Base (RAB) multiplied by a commercial rate of return (the risk-free rate plus 3.5%).

<sup>vi</sup> NBN Co – SAU – 2017-18 Regulatory Information – LTRCM spreadsheet.

<sup>vii</sup> Joint Standing Committee on the National Broadband Network hearing, 11 February 2019.

<sup>viii</sup> A regulatory write-down should not be considered lightly; see discussion [here](#).

<sup>ix</sup> NBN Corporate Plan 2019-22.

<sup>x</sup> NBN Co is also subject to price caps, but these also do not appear to be a binding constraint on prices.

