

Note to Ofcom, 15 July 2020

Sunk costs and operating leverage

As we both recognise, projects involve investment commitments in the sense of requiring future capital, which is effectively a fixed cost, although yet to be incurred. This is what Brattle point to in their report for the European Commission. But this isn't the only investment commitment, because installed assets also represent a fixed cost commitment, albeit incurred in the past. For example, consider a nuclear power station, one would not say it had a high operating leverage before the station was built (when the future capital was committed) but a very low level of operating leverage directly after it was constructed.

We also agree that it is relevant to consider here the specific purpose of the WACC. For charge control purposes, the WACC is used to remunerate capital costs associated with investment made in the past on assets which have not been fully depreciated. So for regulated services, where the investment has already happened, the WACC is being used to ensure investors receive the fair return on their historical investment (and we talk of a return on capital *employed*). The issue is then how to square assessing a rate of return for historical investments with the forward-looking perspective you suggested could be relevant.

We think that the technically correct view is that, for all investments where the regulator is using the WACC to ensure investors receive a fair return on their historical investment, the view of operating leverage should be forward-looking starting *from the time of that investment*.

We do consider this position year-by-year and not on a one-off basis, but this does not change the underlying principle. Assets depreciate over time, so the undepreciated value of the outstanding fixed cost will decline, and thus so will be operating leverage of that specific asset. For a network in steady-state, assets will be on average 50% depreciated and this value will give the long run share of fixed costs to total costs for the network. For a new network, the investment commitment will be higher because capital needs to be built up to its steady-state level during the investment phase, and assets will be largely undepreciated. As a new network matures, future commitments will decline (the investment phase being over) and the average age of the assets will start to decline towards 50%. Over time, the operating leverage of the network, taken as a whole, and on a forward-looking basis, will therefore decline.

So, for the nuclear power station, we see high operational leverage when the construction is first committed. Once first built, the investment phase is over, but the value of the fixed investment is still going to be high and thus so would be the operating leverage. However, from this stage onwards the level of leverage will decline as the power station reduces in value. At all times the perspective is forward-looking. This framework is also consistent with the principles of CCA accounting, which values assets at their replacement cost i.e. their "forward-looking" cost.

But key for us is that the WACC should reflect the operating leverage faced by the investor *at the time of the investment*. This means that for dark fibre the fixed costs should include the duct and fibre assets because, at all times, the investor still bears the risk associated with the fixed cost of having invested in duct and fibre assets.

Data source on take-up of FTTC vs standard broadband

You also asked about our statistic on the proportion of all households that take FTTC broadband (40%) vs standard or no broadband (40%). This is what we quoted in para A6.58 of our response.

The statistic is based on Ofcom's Communications Market Report 2019. Based on c. 28m UK premises, we use Ofcom's data on the total number of ADSL connections in 2018 (9.6m), and the residual number of premises that don't have a broadband connection (1.4m) to calculate that 40% of premises take either standard or no broadband. Similarly, we divide the number of FTTC connections in 2018 (11.3m) by the total number of premises, to calculate 40% of premises take FTTC broadband. In both cases, our calculations do take account of cable connections supplied by Virgin Media.

We agree over the forward period that standard (all-copper) broadband numbers will decline. In effect, we will gradually move to a new baseline service, but we still expect greater variability in speed and margin as this transition occurs between the new baseline and the remaining standard broadband lines.

Richard Budd
15 July 2020