

IAP Response

Ref B2.WSH.RR.A2

Totex Asymmetry

1 April 2019

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Our response

We continue to believe that, self-evidently, the ex ante distribution of totex outcomes is skewed to the downside. We note that Ofwat has challenged this view on the basis of ex post evidence on out-turn costs, but consider that in doing so Ofwat has conflated two quite distinct concepts, namely the intrinsic distribution of totex risks on the one hand and the distribution of “regulatory error” in projecting allowed costs on the other. Our detailed reasoning is included in the additional evidence section.

Forecasts are made to produce a central estimate of the totex that is forecast to be necessary to deliver a service or carry out a project over a given time period. There are several sources of potential risk around that estimate (input price, scope, etc) which mean that the outturn is likely to be different. Some may be regarded as symmetrical (e.g the distribution of possible input prices for power), whilst others are undoubtedly asymmetrical (e.g the potential effect on totex of weather events). Further, whilst we can think of several sources of risk that are asymmetrical to the downside, we cannot think of any that are asymmetrical to the upside. This has much to do with the fact that, given the nature of the sector in which we operate (the delivery of a universal and “essential” service), the principal source of asymmetrical risk, namely “scope” (including quality), has very limited (if any) potential to contract, but significant potential to expand. There is always a possibility that we will be subject to tighter quality or environmental standards than was anticipated at a price review, but no realistic chance that standards will be significantly relaxed.

By way of evidence, a good example of such asymmetrical cost risk is the net overspend on totex in the current AMP6 period associated with the Loughor estuary. We were allowed nothing at PR14 because the legal requirement had not been confirmed, but now expect to spend over £70m in total to meet it. There is no prospect of a similarly “fortuitous” scenario in which a similar sum is allowed at a price review, the requirement is then relaxed, and as a consequence we neither have to incur the expenditure nor return it to customers through the price-setting mechanism, thereby enjoying a higher rate of return on regulatory equity.

It remains our view, therefore, that, ex ante, the probability distribution of totex outcomes is asymmetrically skewed to the downside.

Ofwat (drawing on evidence from PWC) counters this by contending that companies’ cost performance in the past has not shown an asymmetrical distribution around the sums allowed by the regulator at price reviews. The chart on page 12 of Technical Appendix 3 of the IAP that shows the distribution of out- and under-performance in AMPs 4, 5, and 6 is put forward as evidence. The finding that the industry has tended to out-perform the regulator’s cost allowances may be valid, but the ex post observation does not disprove the ex ante hypothesis because there are other factors that are at work. Specifically, whilst the distribution of potential totex outturns around a central estimate at a given point in time may be asymmetrical, it is reasonable to expect that both the central estimate and the distribution around it will shift downwards over time. This is because, as Ofwat has noted, the incentive regime drives the sector towards lower overall costs, potentially assisted by

economy-wide productivity and technological improvements. At price reviews a regulator seeks to forecast the likely rate of such improvements so that the benefits can be “baked into” price determinations. Understandably, errors will be made both ways.

The chart presented on page 12 of Technical Appendix 3 of the IAP therefore depicts the effect of a number of factors, and it is not possible to infer from its findings anything about the distribution of ex ante totex risk.

Of course, a counter-argument might be that the distribution of regulatory error can be expected to be symmetrical, so the effect of this on the distribution of observations in the chart around the zero line, over time, would be neutral. Whether or not that is the case, the chart only reflects three data points on regulatory judgement (one of which is highly provisional, given that only three years of AMP6 have been included), namely PR04, PR09, and PR14. Even if the distribution of regulatory error is symmetrical, “three heads” in a succession of coin tosses is not unusual, and does not prove that the coin has been loaded.

We also observe that the PWC out-performance analysis draws upon three regulatory periods when RPI was the basis for assessing real cost performance. Ofwat has decided to replace RPI with CPIH from 1st April 2020 onwards on the basis that it is a better index. In addition, the IAP has confirmed that Ofwat does not see a case for allowing positive RPEs over and above CPIH. Since RPI typically rises at a rate approximately 1% faster than CPIH, it follows that, on Ofwat’s logic, companies have benefited from that “wedge”, which would therefore explain a significant part of the out-performance depicted in the chart on page 12 of Technical Annex 3. If the “zero line” in the chart is adjusted upwards by the average value of the RPI/CPIH wedge then it is clear that cost performance in AMP4 and 5 was, in fact, skewed to the downside, and it is only in the (partial) analysis of AMP6 that under-performance and out-performance are more balanced.

In conclusion, we maintain that there are strong reasons as to why the distribution of totex outturn risks is skewed to the downside. The incentive regime context does not change this fact: what it does do is bring into play other factors that interact with the distribution of totex risks so that interpretation of observed outcomes has to be undertaken with considerable care.