

This note briefly responds to new arguments raised by Ofwat in defence of its frontier shift assumption of 1.5% per year. We remain of the view that 1.5% per year is too high.

1. Our March 2019 critique of Ofwat's frontier shift analysis

In its initial assessment of plans (IAP) and draft determinations (DD), Ofwat applied a frontier shift assumption of 1.5% per year to base expenditure. The purpose of this assumption is to take account of both: on-going efficiency improvements in the wider economy (hereafter, 'economy-wide shift'); and one-off improvements from water companies making greater use of the totex and outcomes framework at PR19 (hereafter, 'totex shift').

In our March 2019 report for Yorkshire Water "*The scope for frontier shift and real price effects at PR19*", we argued that frontier shift assumption of 1.5% per year is too high for two main reasons.

- First, regarding **economy-wide shift**, Ofwat attached insufficient weight to the latest evidence regarding UK productivity, which shows that the UK – including sectors comparable to the water sector – are experiencing a long-lasting and persistent slowdown.
- Second, in response to its IAP, we argued that KPMG and Ofwat's approach of adding an estimate of **totex-shift** to **economy-wide** shift results in double-counting. Our reasons for this were:
 - » The TFP growth figures are estimates of the productivity gains that comparator companies, which have at least as much commercial and operational flexibility as regulated companies, can achieve.
 - » Although the totex and outcomes framework may have given regulated companies greater commercial and operational flexibility than they previously had, it plainly does not give them greater flexibility versus the comparator companies.
 - » Therefore, the conclusion that comparator companies can achieve productivity gains of (say) 1.0% and regulated companies can achieve productivity gains of 1.5% – when the latter has the same or less commercial and operational flexibility as the former – cannot be right.
 - » Put another way, the TFP growth figures already embody the productivity gains that arise due to commercial and operational flexibility. If one assumes that the 0.5% figure is a good estimate of the impact of the totex and outcomes framework and that 1.0% is a good estimate of TFP growth (assumptions we disagree with) – a more plausible interpretation of this evidence is that, before the totex and outcomes framework, regulated

companies would be able to achieve about half of the productivity gains achievable by the comparators.

- » Therefore, the approach of adding 0.5% (or indeed any figure) to the TFP growth figures misinterprets the evidence and double-counts the impact of the totex and outcomes framework and results in Ofwat materially overstating the scope for frontier shift at PR19.

2. Ofwat's July 2019 response to our critique and our reply

Ofwat responded to our critique – and those submitted by other companies and consultants – in its July 2019 technical appendix “*Securing cost efficiency*”. Ofwat's consultants – Europe Economics – also responded in its revised report.¹

- Regarding **economy-wide shift**, the arguments and evidence advanced by Ofwat and Europe Economics remain substantially unchanged from the IAP stage. Therefore, we do not address this issue again here.
- Regarding **totex-shift**, Ofwat and Europe Economics have advanced new arguments for why they disagree with our argument that it is double-counting to add an estimate of totex-shift to economy-wide shift, which we set out and address below.

Ofwat relies on the arguments made by KPMG in its original report and the arguments made by Europe Economics in its updated report.

2.1 The argument made by KPMG

The KPMG argument is:

“These total factor productivity results are added to the potential gains from the totex and outcomes framework to understand the overall efficiency potential in AMP7. This approach can be considered appropriate because the methodology for assessing cost outperformance from totex and outcomes compares the level of company outperformance with the allowances made by the regulator at each of the price controls and in each case the regulatory already included an adjustment to their allowed costs for frontier shift efficiency. Therefore any outperformance beyond this allowance should already account for this.”²

We disagree with this argument. It rests on the assumption that the observed cost outperformance can be wholly attributed to the introduction of the totex and outcomes framework, but for the reasons set out in our March 2019 report and in the KPMG report, it cannot be.³

2.2 The arguments made by Europe Economics

Europe Economics makes two arguments in its updated report.

Its first argument is:

“First, ongoing frontier shift could be higher, as firms now have greater flexibility on an ongoing basis to innovate and employ more cost-effective solutions. This is

¹ Europe Economics (2019), “*Real Price Effects and Frontier Shift – Updated Assessment*”.

² Ofwat (2019), “*Securing cost efficiency technical appendix*”, page 129.

³ Economic Insight (2019), “*The scope for frontier shift and real price effects at PR19*”, section 2.3.

captured in our analysis by the fact that our range for frontier shift is based on the trend productivity gains achieved in competitive sectors where firms have always had flexibility to choose an efficient mix of inputs and to deliver outcomes in the most efficient way.”⁴

We agree with this argument. In fact, this is precisely our point – although it is possible that on-going frontier shift in the water sector *could* be higher than it was in the past *because* of the greater flexibility afforded by the totex framework, there is no reason to believe that it would be faster than the on-going frontier shift in the comparator competitive sectors.

Europe Economics’ second argument is:

“Second, however, there should also be a period of time in which the water sector makes additional “industry catch-up” efficiency gains as its input mix and approach to delivering outcomes are reoptimised, thus moving the sector closer to the productivity levels that comparator sectors have already been able to achieve. This scope for a temporary period of faster productivity gains from reoptimisation is not open to the comparator sectors because their existing capex-opex balance has not been distorted by a historical capital bias. Since this temporary period of efficiency gains from reoptimisation is additional to ongoing frontier shift, we consider that Ofwat is justified in adding an increment to the frontier shift numbers that we have estimated in our report to take account of these additional efficiency gains.”⁵

We disagree with Ofwat that this argument provides a sound basis for adding totex-shift to economy-wide shift or that implies that to do so is not double-counting. The argument rests on all of the following implicit assumptions being correct.

- First, the move to the totex and outcomes framework would result in a temporary period of faster productivity gains.
- Second, that any temporary period of faster productivity gains: (a) has not already started and finished; and (b) will now be sustained until the end of 2025.
- Third, the comparator sectors have not experienced temporary periods of faster productivity gains for other reasons, such as technological change.

What is the empirical support for these assumptions? The first assumption is arguably supported by KPMG’s analysis⁶, although we consider that it suffers from major limitations, for the reasons set out in our March 2019 report.⁷ The second assumption is not supported by any evidence that we are aware of. The third assumption is seriously called into question by the EU KLEMS data, which shows that the comparator sectors have had temporary periods of high and low TFP growth.

⁴ Ofwat (2019), “Securing cost efficiency technical appendix”, page 129.

⁵ Ofwat (2019), “Securing cost efficiency technical appendix”, page 129.

⁶ KPMG (2018), “Innovation and efficiency gains from the totex and outcomes framework”.

⁷ Economic Insight (2019), “The scope for frontier shift and real price effects at PR19”, section 2.3.

3. Conclusion

For the reasons set out above, we remain of the view that adding totex-shift to economy-wide shift is double-counting. We also remain of the view that the frontier shift assumption of 1.5% per year is too high for the reasons set out here and in our March 2019 report.

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