Financeability: An Update

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Foreword

In 2005 and 2006 First Economics was an active participant in the debate about the financeability of regulated companies during the joint Ofgem/Ofwat 'Financing Networks' study. Following the conclusion of Ofwat's recent review of water and sewerage charges (PR09), this paper revisits the topic and asks whether it is right that Ofwat should have alighted on assumptions about equity injection as its fix for weak financial ratios.

We do this in four parts:

- section 1 contains a reminder of the root cause of failed financeability tests – the inclusion of a real rate of return in price limits at a time when most of the interest paid by companies to lenders is set in nominal terms;
- section 2 examines the pros and cons of equity issuance assumptions;
- section 3 evaluates the alternative responses that were available to Ofwat, but rejected in favour of equity issuance, at PR09; and
- section 4 concludes with a summary of the report's key points.

Note: We are grateful to Thames Water for part funding the research as part of our work with them during PR09. For the avoidance of doubt, the views and analysis set out below are entirely our own.

1. Why Companies Might Not Be Financeable: A Reminder

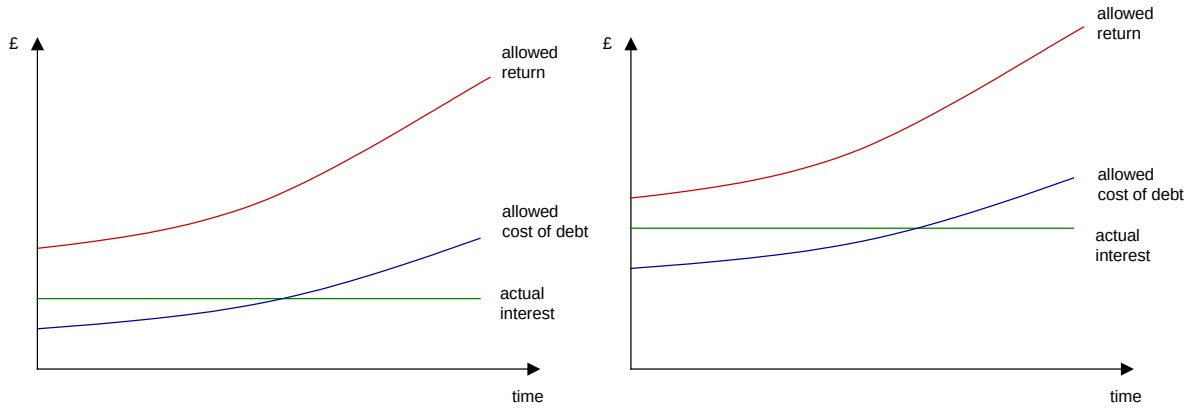
1.1 The real/nominal mismatch

The main contribution that our original April 2005 paper[1] made five years ago was to show that the origins of financeability problems lay in a mismatch between the real rate of return that regulators incorporate into price limits and the nominal interest payments that companies make to most lenders. Our contention was that by compensating investors for the effects of inflation through the indexation of the RCV, and not in year in the allowed cost of cost of capital, regulators have created short-term weakness in cashflow which is manageable when gearing is low but which causes rating agencies and lenders considerable difficulty when gearing gets higher.

Figure 1 illustrates this diagrammatically.[2] The left-hand side depicts a company with Ofwat's assumed gearing and the right-hand side depicts a company whose RCV and gearing level move higher due to high levels of investment. The companies are otherwise identical. Both charts comprise a green line representing the nominal interest payments going out to lenders, a red line representing the income coming in from customers through the inclusion of a real rate of return on the RCV in price limits, and a blue line representing the implied allowance for the cost of debt within the rate of return calculation. In both cases the green line is flat (because interest payments to lenders are fixed in money terms) and the red and blue lines grow over time (because the real rate of return is applied to an RCV that grows in line with inflation).

The different shape of the green and blue lines is due to the real/nominal mismatch mentioned above. In the left-hand chart, it can be seen that the regulator's allowance for the cost of equity (i.e. the gap between the red and blue lines) produces sufficient profit to accommodate this mismatch. But in the right-hand chart, a higher proportion of debt and a lower proportion of equity means that the buffer is much smaller. Although in aggregate the right-hand company is being provided with sufficient income to cover its real-life interest bill and still make a profit, the amount of profit earned is not sufficient in the short term to generate the sort of interest cover (i.e. the red line divided by the green line) that rating agencies demand from companies with an A3/A- rating. Accordingly, the right-hand company would fail Ofwat's ratio tests and be judged unfinanceable.

Figure 1: Returns and interest payments (out-turn prices)

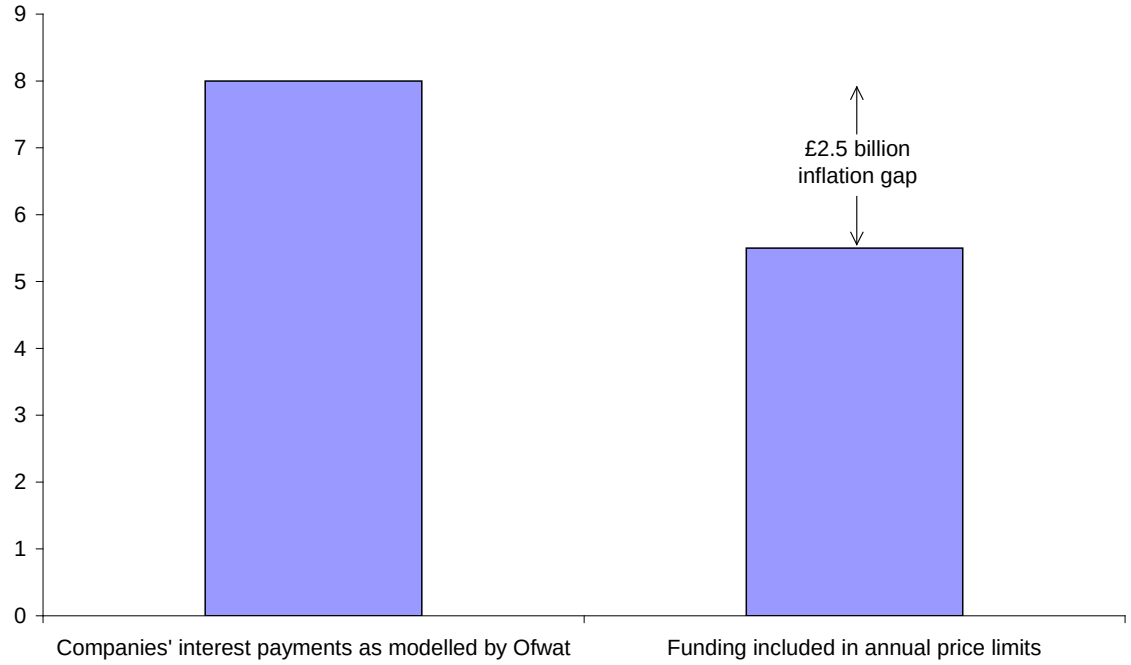


[1] First Economics (2005), Financeability: The Key Issue in Regulation Today?, available at www.first-economics.com/financeability.pdf.

[2] To keep things simple and to fix ideas, we describe a situation in which all of a company's debt is in nominal terms, and where the company has reached a steady state in its investment programme and no longer experiences negative cashflow. We recognise that in real-life a company will have at least some index-linked debt (which will alleviate the problem we are about to describe) and is likely to be investing historically high amounts in its network (which will exacerbate the problem).

To give some sense of the scale of the issues this creates, we calculate that the water industry's interest bill in AMP5 (i.e. the green line) will be approximately £8 billion and that the funding contained within AMP5 price limits for these payments (i.e. the blue line) is less than £5.5 billion. This leaves £2.5 billion of interest costs for companies to pay for out of equity returns/retained profits, albeit knowing that an equivalent amount of money will be added to the RCV via the annual indexation mechanism. In a majority of cases this is just manageable, but in the case of three companies – Bristol Water, South East Water and Thames Water – interest cover doesn't quite meet the rating agencies' benchmarks.

Figure 2: The inflation gap (£ billion)



It is perhaps worth emphasising at this point that the reason this outcome arises is because a regulator thinks in terms of long-term value whereas lenders and rating agencies care at least as much about cashflow in the short and medium term. When these two worlds collide, a regulator can find it is unable to satisfy rating agencies' ratios and is forced to assess what steps it should take to discharge its duty to secure that companies are able to finance their activities.

1.2 Are large investment programmes the cause of financeability problems?

Ofwat's explanation of financeability problems in PR09 has been slightly different from the one that we have just outlined. Although recognising that the real/nominal mismatch is an issue, it has said that financeability issues are 'brought about by' continuing large capital programmes and the consequent rapidity in the growth of the RCV.

In this way of looking at things, companies with financeability issues have found that they have been unable to satisfy the requirements of rating agencies because they are growing their businesses too fast. Like all other firms, whether regulated or unregulated, the affected companies have discovered that there is a point at which their ability to finance new capex by issuing new debt runs out. When this point is reached, it quite naturally becomes necessary to fund the expansion of the RCV via other means.

Although this story has immediate intuitive appeal, we think that it gets the cause of a financeability problem back to front. As our own explanation in section 1.1 shows, it is unarguably right that financeability problems would not have emerged if companies were not

embarking on large capital programmes (i.e. if they were not increasing their gearing). But to our mind the effect of this investment is best characterised in terms of the way that it exposes the real/nominal mismatch where otherwise it would remain hidden (i.e. where otherwise the gap between the green line and blue line could be paid for out of equity returns with a good margin to spare). Viewed in this way, the scale of investment is possibly best characterised as a catalyst that triggers a reaction that reveals a deeper, more fundamental issue with the regulatory calculation.

One way to see this distinction is to look at precisely what is causing the rating agencies difficulty when a regulated company fails financeability tests. Specifically, it is almost always[3] interest cover metrics that fail a rating agency's ratio analysis rather than the level of gearing or the level of indebtedness per se. To our mind what this is saying is that the RCV is perfectly capable of supporting more debt except for the fact that its annual cashflows, as determined by the regulator, are too weak. In effect, the real/nominal mismatch is artificially constraining companies' ability to borrow at a point that sits some way below where capital markets would otherwise start to balk at new debt issuance.

We would suggest that this puts responsibility for financeability issues squarely at the door of the regulator. Notwithstanding the challenges that large investment programmes present to the capital markets, companies would not be failing financial ratio tests if it were not for the way in which regulators set returns.

1.3 Is the cost of capital too low?

Another take on PR09 has been that financeability problems are the result of Ofwat under-estimating the industry's cost of capital. Companies that put forward this argument claim that a company which is ostensibly earning an appropriate rate of return ought to be able to raise new debt finance. Accordingly, failure to obtain the financial ratios sought by rating agencies and lenders is a failure to calculate the cost of capital correctly.

Such contentions require careful analysis. On the one hand, it is by no means implausible that a regulator's calculation of the cost of capital could contain errors (First Economics for its part expressed concern during PR09 about Ofwat ignoring the way in which some companies' large capital programmes exposed them to higher systematic risk). Where this is the case, the consequences of setting the allowed rate of return too low could well include weak financial ratios and an inability to obtain an acceptable credit rating from the rating agencies.

On the other hand, it is wrong to say that estimating the cost of capital correctly will *always* produce acceptable financial ratios. To see this one has to remember that Ofwat elects to partition the cost of capital into two parts, with one part (the real rate of return) flowing through to bills in year and the other (compensation for inflation) being paid to the companies as an addition to the RCV. If Ofwat were to combine both elements together and pass the whole of the nominal cost of capital through to customers on an annual basis, there would normally be no question of companies not passing the rating agencies' tests.[4] However, in electing to allow only a real rate of return in annual price limits it can be that Ofwat leaves the in year return too small for companies to demonstrate that they exhibit appropriate levels of interest cover. Importantly, this can occur even when there is no error in the original estimate of the nominal cost of capital.

[3] Regulators are not always explicit about which ratios fall short, but in the numerous reviews we have worked on in a range of industries we have yet to encounter a situation in which a firm's notional debt-to-RCV ratio is the source of financeability difficulties. Instead, it is invariably the FFO/interest or adjusted interest cover ratios that cause the problems.

[4] As an example of this, our back-of-the-envelope maths shows that a typical firm's AMP5 interest cover would have improved by at least 0.75 times had Ofwat factored the nominal cost of capital into price limits.

We can conclude from this that it is wrong to automatically blame financeability issues on the cost of capital. We can also note that if a regulator were to respond to what is essentially an allocation/cashflow issue by awarding a company a higher return on the RCV it would end up handing shareholders supernormal profits at customers' expense. Customers would rightly view this as a disproportionate response and wonder why it was that they were having to pay higher bills.

2. Assumptions About Equity Issuance: An Evaluation

Having given what we hope is an accessible and thorough diagnosis of PR09 financeability constraints, we now look at the response Ofwat made when it found that three companies would not attain an A3/A- rating on the back of its determination.

As a reminder of Ofwat's position, it assumed that Bristol Water, South East Water and Thames Water would issue new equity worth respectively 10%, 7.5% and 20% of the equity base in Ofwat's notional balance sheets. In doing so, it made allowance for transaction costs equivalent to 5% of the assumed issuance, but with a proviso that this would be clawed back at the next review if no equity is actually issued.

2.1 Effectiveness

The first thing to say about equity issuance is that it is an effective and comprehensive fix for problematic financial ratios, at least insofar as company behaviour follows Ofwat's assumptions. If interest cover ratios are too low, the swapping of debt for equity directly reduces the amount of interest that must be paid out to lenders, boosting interest cover and making it possible for a company to attain a rating that would otherwise be out of reach. As such, there can be no doubting that Ofwat's approach in PR09 provides a solution for financeability problems; the question is not whether the fix works but whether it is a better fix than the other options that were available to Ofwat when it was formulating its determination.

2.2 Impact on customers

Another obvious attribute of Ofwat's approach is its immediate impact on bills. At a time when there are genuine concerns about the affordability of water and sewerage services, using the capital markets to finance companies through a period of tight cashflow minimises upward pressure on prices and means that customers barely notice the financeability issues that businesses are encountering. The only apparent consequence for customers comes from Ofwat's conditional allowance for transaction costs, which is a relatively small amount in the overall price calculation.

If nothing else, there is a neat consistency here between Ofwat's assumptions about index-linked debt issuance and Ofwat's assumptions about equity issuance. In both cases Ofwat is saying that the capital markets are capable of designing their way around the real/nominal mismatch. In the case of index-linked debt, this means reducing coupon payments and inflating the principal owed in exactly the same way that Ofwat provides for only a real rate of return and indexes the RCV. In the case of equity issuance, it means sacrificing short-term cash returns in exchange for capital appreciation and the promise of higher cash payouts in the future.

Experience shows that issuing index-linked debt has until now been basically costless to companies (albeit within limits). If it could be shown that equity issuance was also costless or near costless it would be difficult to argue with Ofwat's PR09 approach on principle, given the clear benefit it offers to customers currently feeling the pinch in the aftermath of the recent recession.

2.3 Interference in ownership

Having worked with companies on the implications of Ofwat's PR09 determination, we have reluctantly come to the conclusion that debt finance and equity finance are not quite this similar in character. In particular it has become apparent to us that the main difference between making assumptions about debt issuance and making assumptions about equity issuance is that the former are directed at a cohort of potential lenders whereas the latter impact wholly on a very specific group of individuals.

In the case of debt, it is possible for a company to structure its borrowing in such a way as to make the identity of the individuals that provide each additional pound of finance largely irrelevant. This has two important implications. First, if a company needs to borrow more, it does not have to go to its existing lenders to raise new debt; instead, it can go to whoever is willing to provide new finance on the most attractive terms. Second, if a lender is unable or unwilling to provide new finance its interests need not be prejudiced by the entry of a new lender.

The identity of the individuals that provide equity capital does matter. Because equity brings with it ownership rights, the question of whether new equity finance is provided by existing shareholders or new shareholders has real consequences. In particular, a shareholder that does not participate in a rights issue concedes ownership rights to shareholders that do. This means that existing shareholders are now in the uncomfortable position of seeing their property rights eroded if they do not participate in an equity raising exercise initiated by the industry's economic regulator.

It could be, for example, that certain shareholders do not immediately have the finances to add to the investments they have already made. These persons are faced with the choice of buying shares that they would otherwise prefer not to buy or seeing the stake that they have in the company diluted by new shareholders. In the first scenario, the marginal cost of capital could be very high; in the second scenario, they are effectively forced against their will to give up some of their influence on the company's decision making.

If the affected individuals are very small shareholders, this is possibly not a major issue. But if the people affected are large shareholders, a requirement for new equity has the potential to alter fundamentally a company's ownership structure, especially if the new injection of equity amounts to as much as 20% of the existing equity base. Among other things, it is possible, that a majority shareholder would lose its majority stake, that an owner who previously had 100% control of a company would be forced to bring in a minority shareholder, or, more generally, that any carefully struck balance of interests among owners is disrupted.

We think this poses very significant question marks against Ofwat's approach. When individuals buy shares in companies, they don't undertake to provide further equity capital on an 'as needed' basis and they do expect the control that they exert over decision-making to be preserved unless they consent to a change in ownership. In making equity injections a mandatory consequence of PR09 Ofwat is overturning these assumptions and saying that it is okay to put shareholders in a position where they have to choose between further share purchases and dilution of control.

We question whether it is right for a regulator to force these choices. We also question whether regulation should extend beyond the regulated company to the choices, actions and identity of its owners. For the avoidance of doubt, this wasn't an issue when Ofwat was expecting companies to issue new debt because it was possible to take money from new lenders without affecting the interests of existing lenders. Now that Ofwat is making assumptions about equity issuance it is impossible to ignore that the consequences of these assumptions fall on particular individuals with defined property rights, whose interests may be affected detrimentally by Ofwat's stance.

2.4 Impact on the cost of equity

The implication of the argument that we have just outlined is that shareholders will respond to the risk of forced equity issuance and/or forced dilution by increasing the returns that they demand of companies. The additional return sought will be just sufficient to compensate for the expected costs of having to make an investment that the shareholder would not

otherwise wish to make and/or the costs associated with dilution of control, and, crucially, will eventually feed through into the bills that customers pay to companies.[5]

There is also an argument which says that the cost of equity will increase even if shareholders are not cash-constrained and it is possible to obtain new equity without a change in ownership structures. The origins of a higher cost of capital in such circumstances lie in the pay-off that shareholders make from their investments over periods of, say, 5 or 10 years. As a reminder, the proposition from Ofwat to three companies shareholders at PR09 is that:

- in normal years, a company that performs in line with regulatory assumptions will be able to announce a dividend with a yield of 5%; but
- at such time as the credit rating comes under pressure it will be necessary for shareholders to increase their equity stakes by between 7.5% and 20%.

As in every price review it undertakes, it remains Ofwat's intention that over a very long (i.e. infinite) horizon shareholders take away a return in line with their estimated cost of capital. But over shorter horizons, the cash return that flows to the shareholder can start to look very small. Take, for example, the case of Bristol Water: over a five-year period an initial investment of £100 will yield a cash return of around £15. For Thames Water, the numbers look even worse: over five years the cash return is around £5 and over ten years the cash return on £100 is around £30. Factor in the time value of money and the possibility that equity injections might be required in two successive price control periods and it is not implausible to imagine that a company like Thames might produce a near-zero yield for the shareholder over a ten-year horizon.

One has to question if this level of income generation is enough to attract and retain shareholders' investment (even if, we must stress again, shareholders earn a return in line with their cost of capital over the very long term). The academic literature contains mixed messages about the impact that short-term yield and dividend pay-out ratios have on a company's cost of capital, but we think it is fair to point out that many of today's investors in regulated companies invest because they see water companies as 'yield stocks' – i.e. they value the income that relatively safe, stable businesses produce for the shareholders. If this income as good as vanishes over a period of 5-10 years,[6] appetite for water company equity could start to diminish quite considerably unless companies are able to reposition themselves to attract alternative types of investor.

2.5 Long-term consequences for regulators' decision-making

One final observation that has to be made about Ofwat's approach to financeability PR09 is that it rather brings into question why the regulator bothers to test for financeability at all. We say this because when Ofwat looked at the revenues, cashflows and financial ratios that would emerge from its determination it found that three companies did not pass its financeability tests. But by alighting on equity issuance as the fix for financeability it was then able to declare that the companies were, in fact, financeable without there being a need to change the calculation of allowed revenue (save for the conditional allowance for equity issuance to match any transaction costs incurred by companies).

[5] Note that it may be some time before this becomes apparent to outsiders now that so few of the regulated water companies are listed. This is arguably a cause of concern insofar as an unseen gap between the cost of capital and the allowed rate of return will have detrimental implications for customers until such time as that gap is closed.

[6] Income-sensitive investors can, of course, replicate the cashflows that would accrue in the absence of equity injection by selling shares. But this brings us back full circle to the arguments made in section 2.3 about Ofwat interfering in and destabilising ownership structures.

Some companies have suggested that companies can no longer not be financeable in Ofwat's eyes because they can always be said to be capable, at a price, of getting new capital from providers of equity. This is possibly an exaggeration, but there is a genuine question about whether Ofwat's approach in PR09 makes it too easy for a regulator to overlook or ignore the effects that its decisions have on short-to-medium-term cashflow. In particular, taken to its natural next stage, a regulator could use Ofwat's logic to argue that the total amount of revenue that a company earns in each five-year period is irrelevant so long as a regulator is able to signal that over an infinite horizon the present value of revenues will equal the present value of costs.[7]

We think that financeability tests have played and should continue to play a useful part in the periodic review process. Although it is often uncomfortable for a regulator to have to defer to rating agencies' judgments on credit quality, these bodies indisputably influence the people that lend to regulated companies and cannot just be ignored. One particular role they play is to show that real-life investors don't just care about present values, but worry about cash generation within each five-year control period – a situation that economists might find puzzling, but one which reflects reality nonetheless.

For this reason, we would regard the disappearance of ratio analysis from periodic reviews as a backward step and one that would remove an important constraint on regulators' decision making. If providers of capital do not deal solely in present values, regulators shouldn't either. Rather, they should regard the timing of income streams as an important facet of their determinations.

[7] Note that there are indications of Ofgem applying this logic in its RPI – X @ 20 review.

3. What Are the Alternatives?

Having identified both the pros and cons of Ofwat's assumptions about equity injection we now turn to evaluate the most obvious alternatives, namely:

- other forms of equity contribution, such as dividend retention;
- NPV-positive revenue uplifts; and
- NPV-neutral revenue additions/revenue advancement.

We should add upfront that assumptions about index-linked issuance are also a fix for financeability issues, but we do not consider their role here on the basis that index-linked assumptions seem now to be an accepted and uncontroversial part of the regulatory toolkit. (The only question is whether Ofwat's assumptions about the quantum of index-linked debt issuance are reasonable, which is something that can be verified empirically.)

3.1 Dividend sacrifice

The first option on the list involves companies holding back some of the dividends that Ofwat assumed would be paid to shareholders during AMP5, and in doing preserving the principle that the capital markets should provide a fix for financeability issues. The effect of this action would be very similar to more direct forms of equity injection in that it would provide another means of funding investment, thereby lowering forecast gearing levels and improving interest cover ratios. The key distinction is that it would not lead to any of the interference in ownership that we identified in section 2.3.

We think that the main questions about this approach are pragmatic ones. In particular, how far this sort of fix can help to improve financeability depends on how low dividends could realistically go. There is a big difference between temporarily reducing the dividend yield from 5% to 4% and a drop to, say, 2%. Similarly, lower dividends over a period of 1-2 years is a very different proposition from a reduced dividend over 4-5 years.

Arguably the key benefit of using this fix therefore is that it forces Ofwat to address head on the question of what sort of cash return shareholders require within a control period in a way that it didn't when it alighted on equity issuance as its fix for financeability. Our guess is that once this sort of analysis is carried out it is likely to be possible to fashion a meaningful contribution towards dealing with financeability issues through dividend sacrifice and that in the case of companies with mild ratio problems it may even be sufficient to solve financeability problems completely. However, when companies face the sorts of issues that Bristol Water, South East Water and certainly Thames Water faces in AMP5, it is almost certainly the case that it will become necessary to complement dividend retention with some sort of contribution from the customer in order to create a realistic alternative to equity injection.

3.2 NPV-positive revenue uplifts

We have considered revenue uplifts implicitly already in section 1 when we questioned the contention that financeability problems are caused by Ofwat under-estimating firms' cost of capital. On the grounds that we could see no reason for Ofwat to backfit the real rate of return to satisfy its ratio tests, we also see no reason why Ofwat should hand companies supernormal profits by other means.

We include within this the disguised revenue uplifts that Ofwat awarded the water-only companies in PR09.[8] Although industry attention has focused on the way that Ofwat used

[8] By disguised revenue uplifts we mean Ofwat's decision to allow the water-only companies a higher cost of equity, and hence a higher cost of capital, than the CAPM calculations implied in order to improve companies' cashflow. See p.135 of Ofwat's final determination.

equity injections as a financeability fix we think that there are just as serious question marks over these revenue additions, not least because Ofwat had said that it was taking revenue - uplifts off the table at an earlier stage of PR09.

For the avoidance of doubt, our strong view is that if financeability problems are the result of short-term cashflow difficulties and not any defect in Ofwat's calculation of allowed revenues over the very long term,[9] it follows that the solution should deal only with the cashflow problem and not interfere with the present value of future revenues. Departing from this rule risks causing detriment to customers unnecessarily.

3.3 NPV-neutral revenue advancement

It is this observation that leads some commentators, including some regulators, to favour NPV-neutral revenue advancement as their preferred financeability fix. Their intuition is that if financeability problems are primarily a timing issue, the regulatory response should seek to address the timing of revenues head on, leaving long-term value unchanged.

One can see the logic of this position by going back to figure 1 in section 1 of this paper. In these charts the blue lines and the green lines have the same present value, but with revenue coming into companies more slowly than companies pay out to lenders. If a regulator were to tilt the blue line/red line towards the green line, there would come a point (most likely well before the lines went flat) at which companies had sufficient income and sufficient interest cover to satisfy rating agencies and lenders. Customers would pay a little bit more in the short term, but a little bit less in later control periods and would be no worse and no better off in the long term.

In practice, there are different ways in which this advancement of revenues could be brought about. Ofgem in the energy sector has on various occasions accelerated the depreciation of investments added to companies' RCVs and/or expensed capital expenditure on a pay-as-you go basis, albeit in a manner that has attracted some concern. Less controversially, the CAA in its reviews has advanced revenue more explicitly by adding to income in the immediate five-year period with a promise to deduct a corresponding amount of income at future reviews. In the past we have suggested that regulators might think of calling this sort of intervention an 'inflation profiling adjustment' to make it clear that the purpose of revenue advancement in the face of financeability problems is to give to companies (partial) compensation upfront for inflation that would otherwise only come through over time via the indexation of the RCV.

Whatever the labelling, it seems to us that there is a very good chance that there exists an NPV-neutral revenue profiling fix to financeability issues which simultaneously passes a three-pronged test of being acceptable to the rating agencies, of giving rise to no unintended interference to other aspects of the regulatory calculation, and of providing a permanent and comprehensive fix to the problems caused by weak financial ratios. We know that Ofwat certainly considered NPV-neutral revenue adjustments a viable option back in 2006, although we are not aware of any firm proposition being developed before or during PR09.

The obvious downside of a reprofiling approach is that, by definition, it adds to customers' bills in the short term, albeit with an offsetting reduction in bills in the long term. It is wrong, however, to conclude that higher bills are always a bad thing, and in this particular case we think it is worth asking whether the increase in prices places an undue burden on current customers or whether it unwinds a cross-subsidy that perhaps shouldn't be there in the first place. We say this because the timing with which investors in regulated sectors get compensated for the eroding effects of inflation looks slightly curious – rather than have

[9] In this we implicitly include the allowance of a rate of return that investors perceive to genuinely match their cost of capital.

customers pay as inflation occurs, the regulatory calculation, through the indexation of the RCV, defers compensation to future control periods and future generations of customers.

Our experience is that in other capital intensive industries it is more common to see charges set in such a way as to cover the nominal rather than real cost of capital. For example, in the Competition Commission's inquiry into the rolling stock leasing market it was accepted by all parties that the ROSCOs should be able to earn a rate of return in line with their nominal cost of capital each year. This demonstrates that in industries with discrete assets of finite lives and with no long-term guarantee that an individual firm will enjoy continuity of supply, it doesn't make sense to postpone compensation for inflation indefinitely. Rather, firms have to take payment from current customers or risk not receiving payment at all.

(Note that this may be a particularly pertinent observation for the water industry at the current time. With government and regulator looking at a fundamental overhaul of industry structure, including the introduction of competition at different stages in the value chain, it is by no means certain that money logged up into RCVs will be fully recoverable from the customers of the future (i.e. it is perfectly possible that it will be a different company and/or a different group of shareholders collecting returns from customers in 10, 20 or 50 years time). If companies are paying the costs of inflation now, one might reasonably question whether it is right for the regulator to provide for compensation in future price controls if there can be no guarantee that it will be setting price controls except in the very short term. Indeed, one might also ask whether Ofwat isn't distorting future competition by giving incumbents price limits that include only a real rate of return when new entrants, who do not have price controls and associated RCVs, are likely to have no choice but to recover their financing costs as they are incurred.)

At the very least, we think the very real consequences of the real/nominal mismatch means that it is incumbent on regulators to explain why they set price limits in the way that they do. We recognise that investors value the long-term link between regulated firms' revenues and RPI and we are certainly not suggesting that this link should be broken. Rather, we are suggesting that there might just be a way of compensating for inflation in a more sophisticated way so as to eliminate the weakness in cashflow that the current approach creates.

4. Conclusions

We can summarise the main points to emerge from this paper as follows.

1. An essential starting point in the analysis of financeability is an understanding of what it is that causes regulated firms to exhibit weak interest cover ratios. Although it is sometimes claimed that the root cause of a financeability problem is a large investment programme and/or error in the estimation of the cost of capital, this is almost always not the case. Instead, financing difficulties start when regulators' decide to fund only part of companies' nominal interest payments in price control, causing the sort of inflation gap that we identified in figure 2.

2. When a company is not able to accommodate the real/nominal mismatch, a regulator conducting a periodic review needs to explain how that company will finance its activities if it is to discharge its legal objectives and duties. Assuming that shareholders inject new equity is undoubtedly a viable option, and may be seen as quite attractive insofar as it permits regulators to hold prices low in the short term. However, there are also wider issues to consider, not least that:

    a. current shareholders might not be able to commit new money at the specific time and to the specific amount that regulators assume. In these circumstances, assumptions about equity injection require certain shareholders to cede ownership rights to third parties;

    b. the proposition that regulators/companies are putting to shareholders is not an especially attractive one. Based on experience, in PR09 it is by no means unrealistic to think that shareholders could see a near-zero net distribution over a five-year control period – something which would almost certainly make equity interest much more difficult to attract and retain; and

    c. if regulators are to be permitted to assume that equity is the marginal source of finance in regulated sectors, and if it is right that all shareholders care about is earning a return in line with their cost of capital over very long horizons, it becomes hard to see why regulators bother examining short-term financial ratios at all. A regulator could legitimately argue that they can provide a firm with any amount of revenue in a five-year period so long as in their mind they see a long-term match between the present value of revenues and the present value of costs.

3. If one allows for the detrimental effect that the above factors are likely to have on the cost of equity, it becomes hard to see how assumptions about equity issuance are in customers' long-term interests. The sense is that regulators could be capturing short-term benefit for customers at the expense of higher prices in the medium to long term.

4. That is not to say that regulators have to respond to the real/nominal mismatch with the sorts of NPV-positive revenue uplifts that were seen in PR04. A problem with the timing of revenues requires a timing solution, not a fix that alters the overall value of companies' income streams. It is possible that part of the solution lies in dividend payout ratios and dividend growth rates, however in a majority of cases it is likely that customers will also have to play a part by bringing forward payment of monies that they owe to companies.

5. It is sometimes said that revenue reprofiling interferes with other aspects of the regulatory calculation, like depreciation charges, and does more harm than good. Whilst it is important to ensure that reprofiling does not have unintended consequences and that it is a permanent fix for weak ratios, the CAA's work shows that it is perfectly possible to move revenue between control periods without causing damage elsewhere.

6. It is also possible to articulate a clear economic rationale for revenue reprofiling. If companies are compensating most of their lenders for inflation as it occurs but the regulatory calculation provides for compensation for inflation via additions to the RCV, and if this mismatch starts to cause financing problems, it is right and proper that regulators should bring forward just enough of that compensation to eliminate the financing issues.

We put forward these arguments dispassionately and with no self-interest. It may be that others have different views and we hope that they will respond to the above arguments with analysis of their own, thereby filling something of a hole in regulators' explanation for the way in which they set price controls. We think it would be helpful if the debate could now focus in particular on three key questions: why do regulated companies sometimes fail financial ratio tests; is it right for regulation in solving financeability issues to reach beyond companies to the choices, actions and identity of shareholders; and is there a reason why problems caused by a mismatch in the timing of compensation for inflation should not be solved by resolving the mismatch?

Clear statements from regulators on these points will promote regulatory certainty and regulatory commitment at a time when the network businesses need to attract and retain unprecedented amounts of investor capital. For our part, First Economics would be pleased to make further contributions on the subject as necessary over the coming months.

About Us

First Economics is an economic consultancy advising regulators, companies and government in the aviation, energy, postal, rail and water sectors.

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