

TRADEABLE RABS AND THE SPLIT COST OF CAPITAL

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Whilst regulators have resisted the concept of the split cost of capital, financial markets have been applying its logic with enthusiasm. The recent takeover of Norweb with a reported 45% premium to the regulated capital value (RCV) takes the application of the idea one stage further, since, in the Norweb case, the operational contract was kept with United Utilities, so that it was the core regulated asset base (RAB) that was purchased. In effect, this was yet one more example of large-scale financial arbitrage between the weighted average cost of capital (WACC), which is used to calculate the allowed rate of return, and the marginal cost of debt in respect of the RAB.

These takeovers and their associated financial engineering raise substantial questions for the costs and stability of the regulatory regime as a whole. The City has revealed fundamental flaws in regulation and, in the process, pointed to better ways not only to finance the functions of utilities, but also to protect customer interests. By focussing on the RAB, and separating out operational activities, the way has been opened towards *tradeable RABs*, and towards the *competitive tendering* of the operational activities of the business.

The RAB and the RCV

The split cost of capital—a cost of debt for the RAB, and a cost of debt and equity for the operating part of the business—has a rationale not just in financial terms, but also in reflecting the underlying economic cost structure of utilities. The economic problems for network natural monopolies are well-known: they are capital-intensive; the assets are long-lived; and they are ‘sunk’. This

combination creates a special risk for investors: since the marginal cost is typically low compared with the average cost, once the investments are sunk, regulators (and governments) have an incentive to expropriate by allowing marginal not average costs. Opportunism has historically been a seductive temptation—especially when backed up by the idea that marginal cost pricing is more economically efficient than average cost pricing.

Indeed, so seductive is this temptation that, for most of the twentieth century, some form of public ownership was required to facilitate investment. In effect, taxpayers internalised the investment costs, and it was fashionable to argue that it was efficient for nationalised industries to make losses.

So, investors need a ‘contract’ *ex ante* in order to invest: in exchange for investing in utility networks, the government (and hence the regulators) guarantee that their sunk investments are properly rewarded. In other words: a RAB is defined as the agreed assets that have been provided by investors; a value is assigned—the RCV; as additional investments are made they are added to the RAB; and a rate of return is fixed for these assets. By committing to the RAB, regulators agree not to behave opportunistically.

The RAB and the operational side of the utilities: two different activities

These economic fundamentals relate to the RAB: the return on the RAB is a charge on customers for past investment. But utilities are not confined to past sunk investments: they engage in carrying out new investments and running the

operations. This is a very different economic activity. Running the operations (OPEX) is not dissimilar to many other activities in the economy, and indeed it is not surprising that some (or even all) of this can be contracted out. The operations typically require continuity of supply and, especially in the case of water, stringent health and safety standards. But these are features of many other activities too.

Capital expenditure (CAPEX)—the building of new assets and the replacement and renewal of existing ones—is also an area where contracting out is a normal feature. A sector of the economy is devoted to the providing project management, capital equipment, and construction services.

The risks associated with CAPEX and OPEX are very different from those associated with managing the RAB. The RAB is a physical bundle of assets, and its representation through the RCV requires only the skills of managing regulatory and political risks. What is at stake here is whether governments and regulators will keep their side of the bargain, or whether they will behave opportunistically through mechanisms such as windfall taxes and *ex post* revaluations. What matters here is the rules, and, in particular, the legal obligations on regulators to honour the RABs.

For CAPEX and OPEX there are genuine managerial risks in delivery. These are reflected in the risk profile of the support services and construction and engineering sectors. Operations can suffer cost overruns, and capital projects can go wrong. The ‘contracts’ or bargains here are much more sophisticated: all sorts of fixed and variable cost arrangements have been tried out in the private sector. These are best seen as attempts at assigning risks to those best able to manage them, and as a result competitive contract bidding and fixed-price contract elements are quite normal.

Coordination

Recognising that the RAB and the operational activities are different in kind has enabled some regulatory systems to formally split the two. In France, for example, there is franchising in the water sector, with the assets in the public sector, and the operations auctioned off to franchisees. But there remains the problem of coordination: who decides what the OPEX and CAPEX will be, and who takes the risk that they are not delivered?

This problem has led some to believe that the owner of the RAB is exposed to operational risk, on the grounds that only the RAB owner can carry out the coordination function—and bear the residual risks. Whilst this is, of course, one possibility, it is not the only one; nor is it necessarily the optimal one.

The recent London Underground case is illustrative here. The public-private partnership (PPP) was based on the idea that the two companies that were successful in the original auction, Tube Lines and Metronet, would be responsible for coordination (and the CAPEX and OPEX delivery). One, Metronet, went into administration and is now being acquired by Transport for London (TfL), which is also the procurer. So we will now have Tube Lines coordinating one set of contracts, and TfL the other.

It is far from clear which will prove the most efficient. The argument for Tube Lines is that it has the requisite private sector skills to coordinate large project works; the argument for TfL is that, since such contracts are necessarily incomplete, internalising the uncertainties inside the body responsible for some of them will allocate these risks more efficiently.

It will be an interesting controlled experiment. But the key point is that in neither case would it be argued that banks and financial institutions are best at this. And no one would argue that the ownership of the RAB required these

coordination skills. Coordinating network development is a project management skill of a particular kind, and there are businesses that make this their expertise. Whether regulators and government bodies, such as TfL, are better than market players remains to be seen.

Different risk profiles and different costs of capital

The three utility activities—the RAB; CAPEX and OPEX; and coordination—all have different risk profiles. The RAB is different in kind; the other two are different in degree. For the latter, the typical private sector comparator is financed by a mix of debt and equity, with equity dominating. The reason for this is that they have few assets to act as collateral, and which need to be financed. And where machinery is required leasing and related mechanisms spread the risk.

The RAB, on the other hand, only has equity risk to the extent that it is exposed to regulatory and political risk. This has indeed been the case and the incentive for opportunism, identified above, makes this a very real prospect in the absence of legal protection. Efficiency considerations dictate that such regulatory and political risk should not be transferred to those least able to manage it, but should reside with regulators and politicians. But whether it does or does not is a matter of the legal and institutional context.

The duty to finance functions

The UK regulatory regime explicitly recognises the exposure of investors to *ex post* opportunism, and provides a duty on regulators to ensure that functions can be financed. It varies from case to case, but a reasonable interpretation is that once an asset is in the RAB, the RCV that reflects it will be guaranteed.

The ambiguity arises in two ways: first, regulators have tried to reinterpret this duty as the *efficient* financing of *efficient* functions; and second, there has

yet to be a judicial review which gives a case judgement on which investors can rely. The two are of course related: a judicial review would determine whether the regulators have the discretion in respect of efficiency.

So investors have had to take a bet on the likely legal interpretation of this duty. And they appear to have done so, increasingly taking the view that it is a guarantee, and hence there is little or no equity risk in the RAB. They assume that government and regulators are legally prevented from behaving opportunistically in respect of the RAB.

Financial arbitrage and the RAB

Having taken this bet, investors now contemplate an extraordinary open goal. Regulators have not limited that guaranteed return to finance the functions at the cost of debt, but rather at the weighted average cost of capital (WACC). Furthermore, they have not assumed the gearing for the combined business (RAB plus CAPEX and OPEX plus coordination) at the actual gearing, but at some notional number well below that indicated by the proportion of the RAB in the overall capital structure. Thus, the open goal: investors can finance the RAB at the cost of debt, but are offered an average between the cost of debt and equity at a notional gearing level well below the RAB proportion in the total capital structure.

The only surprise is how long it has taken to realise the full potential profits from this arbitrage. Ever since Northern Electric in 1995 suggested that it might mortgage its assets for the benefit of shareholders independent of the need to use the balance sheet to carry through physical investment, there has been no goal-keeper. Indeed, quite the contrary: at each review, regulators have been falling over themselves to reaffirm the use of the WACC and notional gearing, culminating in the Competition Commission's emphatic endorsement of this conventional approach in its recent inquiry into BAA (whilst at the same time

arguing that the RAB premium ought to be quite low).

Customers lose out

This arbitrage is the rational response to a badly designed regulatory regime. But it is not some arcane and harmless activity: it has major (largely detrimental) implications for customers. The first is the obvious one: customers are ultimately carrying the equity risk by absorbing the role of guarantors of the monies to finance the RABs. It is a cost-pass-through which they pay. Yet they are paying investors as though investors are absorbing some of this equity risk, since the customers are paying the WACC and not the cost of debt in respect of the RAB. The scale of this transfer is enormous.

The second implication for customers is the consequence of the high gearing which results in a context in which the operational and coordination activities are not separated out in the regulatory regime. As a result, because the gearing is high and therefore the equity is low, the utilities may not be robust against adverse external shocks. They might go bankrupt. And while it is true that there is a special administrator regime in place to deal with this eventuality, in practice services may decline considerably in the run-up to possible administration. Intervention is unlikely to be mechanical and predictable—and, of course, any intervention in the context where all the utilities are highly geared may induce systemic risks.

Exhausted balance sheets have a further consequence: if investment-grade credit ratings are to be maintained, further investment will require one of three solutions: pay-as-you-go CAPEX; a rights issues and a corresponding higher cost of equity; or rate of return regulation guarantees. As prices have been marched up, particularly in the water case, pay-as-you-go has actually been developing: the cash flow at the higher price levels, resulting from continuous RPI + X price

increases, finances more and more the assets in the course of construction.

The market leads the way

Financial innovation is a powerful force in the utilities sector, and the new owners having pocketed the large financial arbitrage between the WACC and the cost of debt will be minded to try to ensure that their RABs remain safe. Given they have little equity, it makes sense to try to insulate the RAB from the CAPEX and OPEX, and coordination risks.

The obvious conclusion is to contract out these activities through fixed-price arrangements that transfer the equity risks too. Norweb came ready-made in this form, with the operations remaining with United Utilities. Recent gas distribution sales by National Grid have in some cases married up financial investors in the RABs with separate contracts to run the businesses.

But the next step to exhaust all the value of the arbitrage is to try to complete the separation. This might involve floating off the RABs as a separate financial product. They could then be traded, and although, in the current regulatory framework, they would not be completely independent of the rest of the business's risks, they might nevertheless be valued in the market—backed up by a possible secondary market in the specific debt instruments lying behind these RABs. It does not require complete formal and legal separation to trade what is a bundle of low-risk financial entitlements. That, after all, is what much recent M&A and the associated financial engineering has been about.

Benefits to customers

Tradeable RABs would have advantages for investors, particularly if regulators stick to the WACC and notional gearing. But regulators might not, in which case, there are benefits for customers. The tradeable RABs would reveal their true costs of capital—there would be a transparent market price. Indeed, this

could be indexed to the interest rate, or simply to a pass-through-item. The cost of financing would be revealed, and regulators would come under considerable pressures to act. Customers might then no longer need to pay for an equity risk twice.

But tradeable RABs have a further advantage to customers: they would allow for competitive bidding for the other activities. Instead of contractors bidding to the RAB owners to carry out the coordination and the CAPEX and OPEX, they could bid to the regulator. Instead of the current detailed negotiations over costs with the regulator at periodic reviews, there would simply be an auction at each periodic review. The bidders would write down the P0 and the X factors for the next period they were prepared to offer, and the regulator would focus on the outputs.

Of course, it would not be that simple: some iteration would be needed so that the regulator could get a feel for the costs before deciding on outputs. But this happens in the private sector in many construction projects before commitments to contract designs.

The radical implications would flow to the business of regulation itself. In the water case, Ofwat could be sharply cut back, and possibly even merged into another body. Letting the market determine the costs through competition would be much less bureaucratic than the current periodic review process. In aviation, there could be competing bids for infrastructure projects, such as the third Heathrow runway, and indeed to run Heathrow itself. Incumbents would finally face a genuine threat to their businesses if their performance turned out to be poor.

Examples already in place

A glance across the utilities sector suggests that these ideas of tradeable RABs and competitive operational bidding are already well on their way toward implementation. On tradeable RABs, we

now have specific infrastructure funds and it is probably only a matter of time before some are floated. In a serious sense, infrastructure funds are close to tradeable RABs. On the competitive bidding front, both the utilities and the regulators are edging in this direction.

In addition to the London Underground and Norweb examples discussed briefly above, we have Network Rail and Welsh Water. In both these cases, the muddle is between coordination functions and the RAB. In Network Rail's case, there is also the in-house contracting works, and in the case of Welsh Water, the regulator has been keen to tie coordination to the RAB itself. In Network Rail, the cost of capital is the cost of debt and close to the government's own borrowing costs, as it has underwritten the equity risk directly. Thus, the observed cost of capital is (much) lower—but this is arguably offset in part by the possible inefficiency with which Network Rail performs the coordination and undertakes the operational works. In the case of Welsh Water, the utility still receives the WACC, despite being debt-only, and has been holding back customers' monies to retain earnings—on the odd argument that this is somehow 'equity' in the context of a debt-only company. Both therefore are muddles, but both are illustrative of the RAB issue.

A better way forward

It is hard to claim that the sort of financial engineering witnessed in the utilities sector has so far been to the net benefit of customers, but it is also hard to argue that financial innovation has been necessarily bad. The task now is to marry up the genius of the City with the interests of customers, and to do this by encouraging RABs to become tradeable, and not only to split the cost of capital, but also to split off the businesses (CAPEX, OPEX and coordination) from the financing of the RAB. The former is what matters—that utilities are well run and modernise their infrastructure in an efficient manner. The latter is, in effect, a solution to financing in the context of

the incentives for opportunism by regulators and government. The former is where the action is: the latter is where the money lies.

It is also very hard for regulators to claim that the split cost of capital, as a concept, is not behind the extraordinary M&A and valuations that the sector has been witnessing. They may argue (with the CC) that they should not adopt the split cost of capital approach to periodic reviews, but they cannot escape the consequences. The WACC plus the notional approach to gearing has caused the high premiums to RABs, and they have left the utilities vulnerable to shocks. Customers have underwritten this financial engineering, but they have not benefited. And the balance sheets are now largely exhausted, with the likelihood of more and more pay-as-you-go CAPEX.

Fortunately, a number of regulatory reforms would at least reduce the damage that has been done to customer interests. First and foremost is to determine the actual risk in the RABs—to clarify what financing functions means. This clarification would reduce an uncertainty which customers are paying for through the WACC.

The second step is to go back to the split cost of capital. It is the right answer, and indeed the scale of the RAB premium has repeatedly demonstrated its relevance. To set a notional gearing and a WACC is the wrong answer.

The third step is to get serious about competition, and to use competitive bidding to help set the RPI - X price caps. In the first instance, utilities themselves

could be required to put their operational activities out to tender as a means of demonstrating the efficient cost levels—even if they are not required to actually contract out.

To fully effect these three steps may require some legal reforms. The utilities themselves have the duty to deliver the functions and hence it is hard to make them offer these activities to third parties if they choose not to. The duty to finance functions could do with some legal tidying up. Yet it need not be very radical. The key split here is between the RAB on the one hand, and the CAPEX and OPEX and the coordination functions on the other. Together these operational activities are the core of the businesses, and it does not necessarily follow that the harnessing of the competitive market would dissipate the coordination functions. On the contrary, the security of supply - the coordination and responsibility for the functions—can still be focused on a responsible party. The point here is simply that that does not have to be the owner, or owners, of the RAB. The only really radical aspect of these proposals is that the RAB is split off, ring-fenced, protected, and probably securitised. And as a result it can be traded, and probably at a very low premium to the cost of gilts. Rebuilding Britain's rail networks, its water infrastructure, its airports, and electricity and gas networks would correspondingly be a lot cheaper.

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