

AW/DM/030

17<sup>th</sup> May 2006

Martin Crouch  
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Dear Martin

**Re: Ofgem and Ofwat Discussion Paper – Financing Networks**

I have pleasure in attaching Northern Gas Network's (NGN) response to your recent discussion paper on the issues surrounding companies' access to finance and the approach to setting price controls. For ease of reading, the document is structured in line with the issues and questions raised within the discussion document.

NGN supports and welcomes the paper as a useful starting point for clarifying the issues and reaching a consensus across regulators on the appropriate treatment of the issue of the 'financeability' of regulated companies.

The focus of the paper can be usefully broken down into two core issues:

- the impact of highly geared capital structures on the discretion of the regulator and the ability of regulated companies to deliver investment programmes and services to customers; and
- a requirement to understand the key drivers that impact on the ability of regulated companies to adequately finance their capital investment programmes and to identify appropriate means of addressing this 'financeability' issue.

It is clear that these two issues are linked. However, the two only need to be addressed together if it is considered that highly geared companies pose significant difficulties for regulators in setting price control allowances, ensuring delivery of investment programmes or ensuring continued service delivery for customers. Our detailed response below explains why we do not consider that highly geared companies pose any additional risk given the failsafe mechanisms that regulators have in place. Consequently, the focus should be on developing an efficient solution to the issues of financeability that provides the long term stable regulatory framework that capital markets require.

Overall, the current regulatory framework works well and has provided significant benefits to customers. It is not clear that substantive changes are required

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NGN looks forward to working with the Regulator in taking forward this initiative and hopes that our initial comments are useful.

If you have any questions on the issues raised then please do not hesitate to contact me. I am copying this letter to Emma Cochrane at Ofwat.

Yours sincerely

A handwritten signature in black ink that reads "Alex Wiseman". The signature is written in a cursive style with a long, sweeping underline.

Alex Wiseman  
Regulation Director

## **NGN response to the Ofgem/Ofwat Discussion Paper – Financing Networks**

### **Section 2: The impact of gearing on management incentives and the ability of management to deliver investment.**

The increases in gearing seen in regulated utilities are largely a consequence of the high levels of historical capital expenditure since privatisation. The issue is now receiving significant attention, in part because of the sizeable negative cash flows associated with these programmes and the impact this could have on access to and the cost of financing.

As noted in the discussion paper, the significant increases in gearing, although having adversely impacted credit ratings, have not impacted on companies' abilities to raise new finance or affected company incentives to commit to investment programmes. This is due to several factors that include:

- the stability in operating cash flow and the relatively low business risk of regulated companies;
- the stable and well understood regulatory framework ; and
- the structural constraints that market lenders incorporate into their covenants which impose a market discipline that ensures appropriate financial structure.

However, the continued pressure on gearing levels and cash flows from large capital expenditure programmes will continue to increase pressure on financial ratios and on the ability of companies to attract new finance. The issue of financeability has been addressed in several areas already, most notably in Ofwat's 2002 review, Ofgem's 2004 review of Electricity Distribution and Ofgem's 2001 review of Transco and there are further examples that can be cited. It is clear that without specific regulatory treatment the financeability of future capital programmes will become a serious issue. It should be noted, however, that existing mechanisms have worked well to date.

The risk of disruption to both debt and equity markets is one that companies face irrespective of the issues outlined above. Depending on the nature and extent of the disruption to markets it is feasible that any company would face difficulties in accessing markets. However, given the nature of these market disturbances: they are exogenous to companies; have a low probability of occurrence; and markets are seemingly robust enough to manage at least short term impacts, they are better dealt with via a clearly stated and robust mechanism for adjusting revenues such as the IDOK mechanism and 'shipwreck clause' in the water industry.

### **Section 3: Gearing and the regulatory framework**

#### **a. Financial ring fencing**

- i. Should financial ring-fencing arrangements be extended to cover all monopoly businesses and modified so that they all include cash lock-up provisions.**
- ii. How might the introduction of cash-lock up provisions affect financial structures including holding company debt?**
- iii. Are the current ring-fencing provisions sufficient to allow the activities of the licence undertaker to be fully separated from other group entities? If not, what additional ring-fencing provisions might be appropriate and what might the costs and benefits be?**

Financial ring fencing is an important part of the regulatory framework that, in particular, ensures that companies maintain at least an investment grade credit rating and hence access to capital markets.

There is a concern that the lack of consistency in the area of financial ring fencing across regulators and industries is not assisting the financial markets in understanding and assessing the risks of each sector. Companies are accessing the same markets to raise finance possibly at the same time and it would seem appropriate that there be a level of consistency across regulated industries that attempts to ensure that no industry is accessing the market on more or less favourable terms than any other and potentially exacerbating the financeability issue. Consequently, it is reasonable to extend the current provisions on energy distribution companies across all regulated networks.

If debt is held at the holding company level, then the introduction of cash-lock up provisions may result in insufficient dividend paid to the holding company to cover its interest payments.

The current arrangements for energy distribution companies are appropriate in that cash lock-up is effected if, and only if, companies are at the lowest level of investment grade credit rating and are on negative outlook. This provides protection for customers but should not affect financial structures for prudently managed companies. There is no need to impose additional ring-fencing provisions.

#### **b. Gearing and its impact on regulators' discretion at price control reviews**

- i. Do highly geared structures tend to reduce the regulator's ability to require that the licensee carry out investment?**

The capital structure of a company need not reduce the regulator's ability to require that investment be carried out. Highly geared structures are only a constraint on investment to the extent that the regulator maintains a method of funding capital investment programmes that impacts their ability to maintain investment grade credit ratings. Providing a rate of return required by the market together with a method that ensures financeability would enable regulators to require specific investment.

As you have recognised in your paper, the regulatory mechanism needs to ensure that the incentives for capital investment are appropriate to ensure that efficient expenditure is carried out. In simplistic terms the incentives for investment need to ensure that benefits to regulated companies of carrying out efficient expenditure outweigh the benefits of not carrying out that expenditure.

The key issue is therefore whether the allowed rate of return or cost of capital for investment is sufficient to ensure that companies have a clear incentive to carry out an investment. This issue has been recognised by regulators in recent determinations where cost of capital allowances have been set towards the 'top of the range' that regulators have deemed appropriate to ensure that the incentives to deliver large capital investment programmes are appropriate. We would agree that this principle is appropriate and consistent with the incentive framework defined by the RPI-X method of regulation.

There is an added complexity to this issue that must be borne in mind, that regulators do not have sole discretion over required capital programmes. Other agencies such as the Health & Safety Executive (HSE), DEFRA, local authorities and EU Directives place obligations on companies for capital investment that are largely outside of the control of the economic regulatory agencies. A wider commitment to ensure that these programmes are delivered places greater importance on the requirement to allow companies to fund this and any other capital expenditure adequately.

**ii. Do highly geared structures tend to reduce the regulator's ability to require that the licensee achieve efficiency?**

The capital structure of a company does not reduce the regulator's ability to require that the licensee achieve efficiency. What it does require however is that regulators are as accurate and realistic as possible in setting their expectations of efficiency improvements going forward. Historically, there have been significant opportunities to reduce costs. However, fifteen or more years since privatisation, future cost reduction opportunities are limited. Consequently, there is a danger of overestimating the extent of efficiency improvements that are achievable by companies; this will result in both a realised rate of return below the cost of capital and a further increase of the negative cash flows resulting from a large capital expenditure programme.

This situation would be heightened by any cost shocks that were exogenous to the companies and were not anticipated at the time of setting prices. These could be significant in any year or price control period (eg shrinkage gas purchases in the gas industry and increased pension contributions) and pose a similar problem to that highlighted above. Significant increases in costs above allowances would cause the achieved rate of return to fall below the cost of capital and negatively impact cash flows. These cost shocks can impact upon a company's short term ability to finance investment programmes if deferred dividend payments are not large enough to fund investments. Or if these conditions persist over long periods, they could impact significantly on cash flows and consequently upon credit ratings and ultimately access to finance markets.

The same principle applies to volatility in revenues or 'revenue shocks' that are not linked to corresponding movements in the underlying cost base. As with cost shocks such volatility in revenues would impact directly on cash flows and potentially impact upon the company's ability to finance required investment programmes.

These issues are particularly relevant when companies have high operating leverage i.e. a high proportion of fixed costs relative to total costs and/or revenue as is the case with most regulated utilities with their asset intensive nature and hence high fixed cost profiles.

The movement towards more highly geared capital structures has heightened the importance of ensuring that the risks associated with cash flows are properly addressed within the regulatory framework if they are to avoid impacting upon the financeability of investment programmes. These risks must be accounted for to ensure that the allowed cost of capital is not underestimated.

#### **Section 4: Recent changes to the approach to setting price controls**

The recent changes to the approach to setting price controls have reduced the financial incentives for companies to increase levels of gearing by removing the tax advantages of debt.

However, as the paper recognises, it is not sufficient simply to reduce the incentives for debt financing, to increase the incentive for equity financing. The returns to equity need to be considered separately and set at a level that can both attract and fully fund new equity finance.

The paper indicates that the cost of equity employed in setting the cost of capital by Ofgem and Ofwat at the last reviews considered fully the incentives it provided for new equity formation by choosing a figure at the top of the range of long run average returns on equity financing. However there are several issues to consider before concluding that the cost of capital and in particular the cost of equity were set at adequate levels:

- Citing Tobin's Q values in excess of 1 for water and electricity companies following the periodic reviews is not a reliable indicator of whether the cost of capital and cost of equity was set at an appropriate level. There are a large number of factors that can affect this ratio including acquisition premia and market assumptions about potential for future efficiency gains as well as the value of non-regulated businesses.
- The estimated cost of equity does not explicitly allow for any costs associated with arranging new equity finance in the form of new rights issues. These costs can be significant and without significant funding can act as a barrier to entry for companies into the market for new equity. The costs associated with raising equity need to be allowed, as was the case when the Competition Commission increased the cost of capital for BAA to enable fund raising for the investment in Terminal 5.
- The stated higher cost of equity and cost of capital allowed by Ofwat and Ofgem did not eliminate the requirement for financeability adjustments to allowed revenues. Whilst recognising that these adjustments may be required for several reasons, the issue of a cost of capital set too low must be examined as a reason for these necessary adjustments. This issue is considered in more detail in Section 6 below.

#### **Section 5: The suggestions made by Helm and Mayer**

- i. Would the separation of past and future capital investment improve the incentives for investment, lower the overall risk of regulated businesses and reduce the cost of finance? Are there any practical implications if such an approach was adopted?**

There are several fundamental concerns that we have surrounding the proposals put forward by Helm and Mayer summarised in the discussion paper.

- a. *The treatment of risk is inconsistent with theory and practice.***

The conjecture that the Regulatory Asset Base (RAB) is a set of sunk costs and can therefore be treated as being very low risk or risk-free by deeming them as such and allowing them to earn a commensurate lower rate of return is incorrect.

Regulated companies face significant levels of regulatory and political risk which impact directly on their ability to earn their opportunity cost of capital. Recovery of the RAB and the companies' ability to earn an economic rate of return on the RAB are governed by the companies' ability to successfully lobby for a set of regulated revenues or prices that allow them to do this.

The power of the Regulators to employ its discretion in setting prices and revenues and adjust the current and future value of the RAB feeds directly into market assessment of the level of regulatory risk faced by companies and consequently the premium to risk free rates required to compensate for this risk. Regulatory precedent in the UK and internationally would indicate that market perceptions of regulatory risk are a key driver of required returns. Perversely, the ability of regulators to declare the RAB risk free by removing any risk to its recovery is in itself a source of regulatory risk since it highlights the level of discretion that regulators possess and the possibility of decisions significantly impacting market values.

#### **b. *Increase in Gearing***

One of the fundamentals of Helm's proposals seems to be that regulated companies will be required to finance RAB exclusively via debt, resulting in levels of gearing well in excess of those that exist within current capital structures. Levels of gearing would need to rise well above 90% in most cases and for those with small capital programmes relative to their RAB, gearing levels close to 100%.

These levels of gearing present a fundamental drawback to the proposals put forward by Helm. The required levels of gearing will be well in excess of the maximum associated with maintaining an investment grade credit rating. The 'financeability' adjustments that have been required in several determinations to date may need to become a standard feature of the regulatory framework to support the levels of financial indicators and debt payments implied by these high levels of gearing.

These adjustments can only be avoided to the extent that providers of debt can be persuaded to adjust their approach to evaluating the risks associated with providing debt to regulated companies and that the 'buffer' they require in regulated revenues when assessing default risk can be reduced or removed. It is unlikely that a regime can be identified that would result in such a fundamental shift in the assessment of risk by debt capital markets.

#### **c. *Return on existing assets***

The model does not address the inherent risk that exists in the operation and maintenance of the assets and which cannot be borne by debt alone. This risk is proportional to market value of assets which, in the case of GDNs, is approximately four times the value of RAB. Existing assets were financed and constructed on the basis of a WACC over the lifetime of those assets. Thus the existing RAB needs to retain a WACC approximately equal to that at the time of construction. This is because these assets did not attract the higher WACC now proposed by Helm during their construction phase.

#### **d. *Requires a specific form of financing***

The requirement for a 100% debt financed RAB implied by Helm's proposals has two direct consequences for the regulatory framework.

- i. It removes almost all the flexibility that a company currently has to determine the most efficient capital structure for its organisation and the incentives for efficiency in its capital structure that currently exist. Instead the capital structure and the incentive framework are predetermined by the framework, the size of the historic RAB and the forward capex programme.

- ii. It requires that most, if not all, new capital expenditure will need to be provided by equity investors, either in the form of retained dividends or new equity. The proposal therefore places all the risk associated with new capital expenditure on equity providers and consequently places greater importance on ensuring both that these risks are correctly identified and that returns to equity are sufficient to attract new equity to meet the financing requirements of the capital programme. This is likely to require a significant increase in the allowed cost of equity.

In addition it is likely to require a review of the way in which the RAB is 'logged up' at each periodic review. There is a balance to be struck between the length of time new capital investment is treated separately from the RAB, the risk profile of this investment and the equity return required to fund this investment. It is not clear that the current approach of 5 yearly logging up of the RAB in this manner would be appropriate.

**e. *Implies fundamental change in the regulatory framework to a low risk environment.***

As indicated in several of the points made above, the move to a fully debt financed RAB and the associated increase in gearing to extremely high levels will require that regulators fully account for all the risks that companies face to ensure that companies are in practice the extremely low risk or no-risk entities implied by Helm's proposals.

Helm seems to be suggesting that once capital expenditure has been allowed into the RAB it can be viewed as being low risk or even risk free and appropriate for debt financing at low rates or even risk-free rates. As noted above it is not clear that the market would concur with this regulatory view of risk, but even if it were to be the case, the extremely high levels of gearing would seem to imply that the whole regulatory framework would need to be changed to provide a low risk environment not just the RAB.

As correctly identified in the paper, high levels of gearing do impact upon a company's flexibility in financing capital programmes but also in dealing with cost shocks or large negative movements in cash flow. A significant issue is that, at gearing levels implied by Helm's proposals, the high debt payments and relatively weak cash flows may mean that companies are unable to deal with cost shocks. The proposal would imply that the regulator must fully account for these risks within the framework if they are not to impact upon the low or risk free RAB and cost of debt.

The proposal therefore also seems to imply a move to a much lower risk framework than is currently implied by the RPI-X method of regulation and the approach becomes akin to more traditional forms of rate of return regulation with the reduced incentives for innovation and efficiency that this implies.

**f. *The WACC***

The key element of Helm's proposals is that it will allow regulators to set a cost of capital significantly below that currently seen in regulated industries today, reflecting the lower risk that the RAB faces once it receives regulatory approval and ongoing commitment. There are several problems that we have identified above that challenge this assumption and in particular the key issue of regulatory risk.

However, it is not clear that Helm's proposals of separately identifying and regulating the RAB will reduce the overall cost of capital. Even if the RAB is less risky and the cost of debt on the RAB is lower than cost of debt for the business as a whole, such a policy cannot affect the overall risk faced by the business. Making the RAB less risky and hence cheaper, it merely transfers risk onto equity and makes it considerably more expensive than before.

It is not clear how Helm's proposed treatment of the RAB and debt reduces the overall cost of capital faced by the company.

**ii. Is there any evidence of a lack of regulatory commitment to regulatory asset values or equity funding and if so how might this be best rectified?**

**a. Limit the regulatory discretion with respect to RAV**

There have been significant developments within the regulatory framework that have aided the creation of a more stable and reliable treatment of the RAB. However, there is still significant uncertainty surrounding the treatment and calculation of the RAB and regulators retain the ultimate discretion to change the RAB at any time adding significantly to regulatory risk.

A more prescriptive set of 'rules' that define the RAB and its calculation would show regulatory commitment to RAB and reduce perceived regulatory risk.

This clarity should also be applied to regulatory decisions more obviously with respect to Capex (and in particular Capex overspends) but also to the key building blocks of allowed regulated revenues as these can equally reduce a company's ability to recover the cost of past investments.

**Section 7: Options for dealing with issues of financeability**

**i. Should regulators assume that a proportion of debt is index-linked when setting price controls? Is access to index linked markets available to all companies regardless of their specific financial/corporate structure? Are there longer term implications for the companies' stability of adopting a significant proportion of index-linked debt? What is the demand for corporate index-linked debt and are there constraints on investor portfolios? Would it be more expensive?**

The use of index linked bonds in the utility sector can be seen to have benefits in allowing closer matching of regulatory revenues and debt payments. However, before removing companies' discretion with regards to treasury management it is important that the reasons for the relatively low usage of index-linked debt within the utility sector are understood to avoid any unforeseen problems with such an assumption on the financeability of activities.

There is growing evidence of increasing investor demand for index-linked debt as indicated by subscription rates for index-linked UK government debt. However, the substantial rise in the supply of index-linked gilts in recent years has not been replicated by issuance of index-linked corporate debt. This can largely be explained by the fact that such debt is not particularly attractive to typical firms in the market.

However, given the potential benefit to utilities of the issuance of such debt, there are other factors that explain the small size of this market. These include:

- **Liquidity.** There is a general lower level of liquidity in index-linked bonds than for conventional bonds; the market is less mature with fewer investors. Furthermore, for utilities seeking to maximise demand for their bonds by tapping international markets, index-linked bonds add constraints in terms of choice of currency.
- **Market Conditions.** Owing to favourable market conditions, companies have been able to borrow at rates with conventional bonds that are better than with index-linked bonds.
- **Regulatory Incentives.** A lack of clarity regarding the regulatory treatment of higher financial efficiency using index-linked debt is reducing the incentive for its use.
- **Index Swaps.** Alternative methods of achieving the index-tracking effect e.g. linking a conventional bond to inflation using derivatives. In this way, a synthetic index-linked payment structure can be created without formally using an index linked bond.
- **Accounting and rating treatment.** Companies may have to treat the change in the inflation index as an interest cost in their profit and loss account. This may become a disincentive if inflation becomes more volatile, because it increases earnings volatility. In addition, Debt:RAB finance covenants means no real advantage to issuing index-linked debt other than a very short term cash benefit that dissipates over time.

**ii. Are there any changes to the regulatory regime that would be required in order to facilitate equity injections? What would be the implications for highly geared companies?**

Some of the issues raised above have direct significance for facilitating equity injections. In particular, the required clarity for the treatment and calculation of the RAB and the associated reduction in perceived regulatory risk would remove a significant barrier to new equity injections.

To date, the issuance of new equity in the UK utility sector has been limited. The main case is that of United Utilities where, following the announcement of its rights issue in July 2003, there was a significant negative reaction. This was also the case in 2001 following a rights issue by BT. However, continuing capital investment in regulated businesses will result in more equity finance being required. The regulatory framework must be stable and well understood to enable markets rights issues to succeed.

The costs associated with new equity issuance need to be considered and allowed for in setting revenues. In modelling and analysing the financial ratios regulators need to assume that companies will issue equity to reduce or avoid growing debt commitments. However, it also needs to recognise that issuing equity imposes additional costs, for which the company needs a revenue allowance. NERA estimate this cost to be in the region of 0.3%.

Investors in network businesses have little appetite for the issuance of new equity, particularly if the company is privately owned. Investors in these businesses are focussed on income and not growth.

**iii. Would it be reasonable for regulators to be more flexible in their approach to modelling dividends as a method for stabilising gearing and easing financing constraints? Would such an approach require changes to the regulatory regime in order to increase certainty and, if so, what sort of change would be most appropriate?**

It should be noted that investors in network businesses are investing primarily for income and not for growth. These investors, such as pension funds, are seeking long-term, stable, income-generating investments and have an expectation of a high dividend yield. Consequently, investment should be funded by a mixture of debt and equity, and not by reinvestment of equity returns within the business. Dividend retained for reinvestment is likely to result in less attractive lower yield businesses that may not support the share price required to enable rights issues to succeed.

Modelling assumptions need to be consistent with market sentiment at the time to avoid significant negative market reaction to assumptions underlying decisions. Furthermore, evidence would suggest negative reaction to assumed dividend cuts. It is not clear that such an approach is consistent with attracting new equity investment into the sector. There is a danger that network stocks appeal to neither income nor growth investors. Any substantial change in assumptions about dividends could lead to firms having to alter their behaviour, potentially restricting their flexibility in financing decisions.

Finally, dividend cover and dividend growth are key financial ratios for equity investors. Financeability tests must appropriately consider these financial ratios and provide support for access to equity markets.

**iv. Should Regulators adopt pragmatic definitions of ratios used by credit rating agencies? Is the specific level of any particular ratios critical to credit-worthiness? Is it the overall level and trend of ratios that is important? Would there be significant difficulties for companies if the majority of ratings were BBB?**

The over-riding issue when considering financial ratios is that the regulatory approach must respect what both debt and equity investors actually need.

Regulators can only remove the financial constraints imposed by actual financial ratios to the extent that the market can be persuaded to adjust the way in which they assess regulated companies. The paper suggests that credit agencies' approach be adjusted to take into account the very long term nature of regulated utilities, their largely monopolistic nature and their supportive transparent regulatory frameworks. These adjustments could take the form of changes to the definition of key ratios and/or the threshold values associated with particular ratings. In any case, these changes will need to reflect the underlying concerns of rating agencies and investors and a longer term market view of regulated utilities is likely to require the long term commitment of regulators to returns on the asset base.

Rating agencies are employing a range of financial indicators that are broader than before and also broader than those that regulators have traditionally considered in financial ratio evaluations. It is appropriate that regulatory financeability tests reflect those being applied by the market. There is a need for continuing dialogue between regulators and credit-rating agencies. However, regulators should not adopt "pragmatic" definitions without the confidence of credit-rating agencies that these are valid.

Focussing on financial constraints that are only consistent with maintaining investment grade credit ratings could help reduce the scale of financeability adjustments required but also reduces the flexibility within the regulatory mechanism for both regulators and companies. It requires a more detailed focus of regulatory decisions on ensuring that all aspects of the determination are correct and will not impact upon cash flows to the extent that investment grade credit ratings cannot be maintained. It also potentially further reduces companies' flexibility to fund efficient discretionary capital expenditure and deliver benefits to customers.

With regards to focussing on longer term trends in financial ratios, it is difficult for regulators to take long term trends into account given the uncertainty of future capital expenditure requirements and their inability to commit beyond the review period under consideration. Credit rating agencies and investors take a relatively short term view of ratios, again limiting themselves to the current control period because of the relative certainty of cash flows. Therefore if regulators desire that greater focus be placed upon overall levels and trends of ratios, longer term regulatory commitment to the asset base and investor requirements will be required.

**v. If there are remaining issues of financeability what are the advantages and disadvantages of (a) revenue uplift and should this be revenue neutral (b) accelerated depreciation (c) profiling returns on a nominal basis.**

In considering the issue of financeability an obvious starting point would seem to be the allowance in revenues provided by the WACC since this is a combination of many factors, each of which may have been understated. The understating of any or all of the elements within the WACC calculation can arise for many reasons including inconsistencies between the assumptions employed in calculating the WACC and those underlying the financial modelling and assessment of financial indicators.

The determination in the water and sewerage industry at PR04 included a revenue uplift for all companies since all companies showed an inability to meet the financial ratios consistent with an A- debt rating. This would indicate that there was an underestimation in the cost of capital for the sector as a whole and adjustment to the WACC to better reflect the actual cost of capital would have been more effective than the resulting revenue uplift.

However, there are circumstances where financeability adjustments are more appropriate than adjusting the estimates of WACC. Adjustments to WACC will affect all companies in the industry whereas other financeability adjustments can be applied on a company by company basis and may be more appropriate where financial constraints are not evident across the whole industry.

**a. Revenue Uplift**

This approach has been used in recent determinations in the water and electricity industries as a simple means of addressing financeability issues. However, there are several drawbacks to such an approach:

- As outlined above where revenue uplifts are used to compensate for a WACC set at a level below the actual cost of capital it will lead to an undermining of the current approach to regulatory determinations and in particular the approach to estimating the cost of capital.
- Revenue uplifts have intertemporal misallocation consequences since they require current customers to pay now for investments that will be utilised by customers in the future. The fact that the revenue uplifts applied to date have been non-NPV-neutral in nature would indicate that they are not sustainable in this form in the longer term.

- There are significant problems with making revenue uplifts NPV neutral. Indeed, they are often required due to an inadequate WACC and thus should not be NPV neutral.

### **b. Accelerating Depreciation**

Accelerating depreciation or advancing revenue is the most widely used method of alleviating financial constraints and it has some advantages over the simple revenue uplift discussed above, most notably that it is NPV- neutral over the lifetime of the asset.

However, it still suffers from several key drawbacks:

- It displays the same intertemporal misallocation issues as those identified for the revenue uplift adjustment with customers today paying more than future customers for the same asset.
- It could be cited as being a contributor to the current problem of financeability particularly in the electricity sector as it leads to an accelerated deterioration in the RAB and simply postpones the problem to a future period. Accelerating depreciation can lead to more severe financeability adjustments in the future.
- It is also the case that this form of adjustment does not improve some of the key financial ratios employed by credit agencies such as adjusted FFO interest coverage and Debt:RAB and PMICR
- It increases the mismatch between the market value of assets and the RAB.

### **c. Profiling Returns on a Nominal Basis**

The current approach to calculating the RAB essentially capitalises the inflation element of the RAB and returns it to the company via depreciation in the future. Calculating the RAB in nominal terms and applying a nominal WACC to calculate returns would provide an allowance for inflation in the year it occurred and bring the regulatory definition of costs closer into line with the actual costs of nominal debt over the long-term.

This approach has several advantages over the other forms of adjustment discussed above:

- it is NPV neutral;
- it does not deliver any intertemporal misallocation of resources;
- it does not defer the problem of financeability to future periods or indeed heighten the problem of financeability in the future; and
- it requires a greater focus on inflation projections; these may have to be conservative to ensure that companies receive adequate returns.

However, it will involve a large step change in prices/revenues although its effect on cash flows can be smaller than the adjustments outlined above and may require additional adjustments depending on the nature and size of the financial constraints.