



Independent Pricing and Regulatory Tribunal

Financeability test in price regulation

Research — Discussion Paper
September 2012



Independent Pricing and Regulatory Tribunal

Financeability test in price regulation

Research — Discussion Paper
September 2012

Invitation for submissions

IPART invites written comment on this document and encourages all interested parties to provide submissions addressing the matters discussed.

Submissions are due by 19 October 2012.

We would prefer to receive them electronically via our [online submission form](http://www.ipart.nsw.gov.au/Home/For_Consumers/Having_your_say/Lodge_a_submission).
<http://www.ipart.nsw.gov.au/Home/For_Consumers/Having_your_say/Lodge_a_submission>

You can also send comments by fax to (02) 9290 2061, or by mail to:

Financeability test in price regulation
Independent Pricing and Regulatory Tribunal
PO Box Q290
QVB Post Office NSW 1230

Our normal practice is to make submissions publicly available on our website <www.ipart.nsw.gov.au>. If you wish to view copies of submissions but do not have access to the website, you can make alternative arrangements by telephoning one of the staff members listed on the previous page.

We may choose not to publish a submission—for example, if it contains confidential or commercially sensitive information. If your submission contains information that you do not wish to be publicly disclosed, please indicate this clearly at the time of making the submission. IPART will then make every effort to protect that information, but it could be disclosed under the *Government Information (Public Access) Act 2009* (NSW) or the *Independent Pricing and Regulatory Tribunal Act 1992* (NSW), or where otherwise required by law.

If you would like further information on making a submission, IPART's submission framework is available on our website.

Contents

1	Executive summary	1
2	Review context and scope	4
2.1	Previous financeability test (January 2011)	4
2.2	Assessment of financeability in the 2012 water reviews	7
2.3	Scope of this review	9
3	What is the appropriate cost of debt?	11
3.1	Practice of other regulators	11
3.2	Assessment of options	11
4	How should financeability be tested?	13
4.1	Should we try to determine a proxy rating?	13
4.2	What financial ratios should we use?	14
4.3	Should we adjust the inputs to the ratios?	15
4.4	Should we rank the ratios?	15
4.5	What benchmarks should we use?	16
4.6	What happens if a ratio is not met?	21
4.7	Peer reviewing the results of the financeability test	22
5	To which sectors should the financeability test apply?	23
5.1	Context and past practice	23
5.2	When should we apply the financeability test?	24
6	Our preliminary view	26
Appendix		
A	Moody's rating methodology	28

1 Executive summary

In many of our price reviews we conduct a financeability test to assess the implications of our determinations for the financial sustainability of a utility. This paper provides our stakeholders an opportunity to engage with us on proposed modifications to the financeability test.

We have broad discretion in our decision-making and section 15 of the *Independent Pricing and Regulatory Tribunal Act 1992* (Act) sets out a number of factors we are required to consider. The objective of the financeability test is to enhance the transparency, consistency and certainty of the regulatory regime by providing guidance on how we will exercise this discretion in regard to financial issues. While the Act does not require us to undertake a financeability test as part of our price reviews, we have done so in the past, because we believe that it is good practice to do so. The primary objective of this review is to establish an appropriate framework for the test.

The financeability test helps us assess the impact of our price determinations on the ability of a utility to:

- ▼ fund the provision of services
- ▼ service and repay debt
- ▼ access debt markets for new borrowing requirements.

We use the financeability test as a check on the reasonableness of the proposed revenue or price path. We expect a utility will be financially sustainable over the life of the assets given that the building block model allows a utility to recover its efficient costs. However, in some circumstances a utility may encounter short-term financial sustainability issues. This can be due to differences in the timing of the recognition of expenses and income.

The financeability test allows us to identify instances where there may be financial sustainability issues. As our building block model should ensure longer-term financial sustainability, responsibility for addressing short-term financeability rests with the utility managers and owners in the first instance. If this is not feasible we may consider a transparent, temporary adjustment to prices and revenues if appropriate.

Our previous approach to the financeability test was set out in *Financeability Tests and their Role in Price Regulation*, January 2011. We changed our approach to financeability in our determination of maximum prices for the Sydney Water Corporation (Sydney Water) and Sydney Catchment Authority in 2012. We did this because the NSW Treasury risk categories we used in our previous (2011) approach were no longer available.

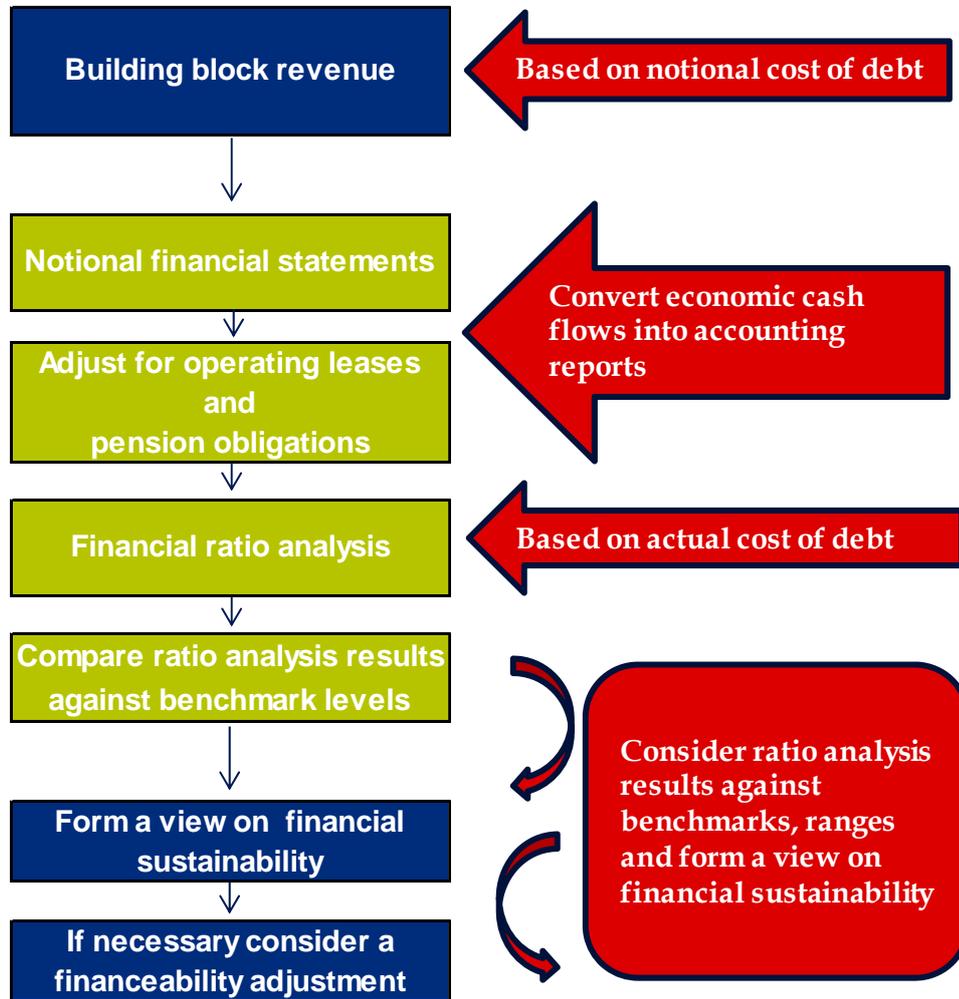
We do not propose to change the objective or role of the financeability test. However, this paper proposes changes to our financeability tests consistent with the approach adopted for the Sydney Water and Sydney Catchment Authority reviews. In particular, we propose:

- ▼ to use a projection of actual interest cost (instead of the notional interest cost) to compute the financial ratios for our financeability test
- ▼ not to provide a notional credit rating
- ▼ to use a range of benchmark financial ratio levels and trends over time as an initial filter to identify potential financeability concerns
- ▼ not to expect a utility to meet all the financial ratio benchmark levels in every year of a determination
- ▼ where the financial ratios suggest a potential financeability issue, to supplement this with further analysis of the utility's cash flows and balance sheet
- ▼ if a financeability adjustment is required, to use a transparent, temporary, reversible adjustment
- ▼ to clarify the sectors/reviews for application of the test.

The financeability test will not apply to those reviews where our price determinations do not affect the financial viability of the service providers, such as the reviews of fares for metropolitan rail and bus fares and Sydney Ferries. Our financeability test will apply to regulated water and energy reviews, where the terms of reference require us to consider financeability.

Our proposed financeability test is summarised in Figure 1.1

Figure 1.1 Our proposed financeability framework



We are particularly interested in engaging with our stakeholders on the following points:

- 1 Do stakeholders agree that the actual interest rate is appropriate for the purpose of conducting the financeability test? How should we estimate it? 12
- 2 Are the ratios set out above (Section 4.2) appropriate to assess the financial sustainability of a utility over a regulatory period? 14
- 3 Is it appropriate to adjust the notional financial statements for operating leases and pension obligations? 15
- 4 Should we rank financial ratios in order of importance? What is the appropriate ranking? 16

5	Do stakeholders agree that we should use Option 2 (Section 4.5.3) as our reference benchmark for the financial ratios?	21
6	Do stakeholders agree that financeability adjustments should be limited to NPV neutral approaches?	22
7	To which reviews and sectors should we apply the financeability test?	25

Submissions on this review are due on 19 October 2012.

We expect to complete this review in December 2012. We will then consider whether to apply the financeability test as modified to the 2013 Gosford City Council and Wyong Shire Council and Hunter Water Corporation price reviews.

2 Review context and scope

In this review we are looking at the specification, application and interpretation of the financeability tests. We are not revisiting the objectives of the financeability test and its role in determining prices, which are set out in more detail in *Financeability Tests and their Role in Price Regulation*, January 2011. This chapter first summarises the current test and its objectives and role. It then defines the scope of the current review in more detail, namely:

- ▼ why we need to change our published financeability test
- ▼ the elements being reviewed:
 - the estimation of the cost of debt
 - the financial ratios used
 - the benchmarks for these ratios
 - whether we can – or should – estimate a credit rating
 - the scope of application of the financeability test
 - the types of adjustments we may make.

2.1 Previous financeability test (January 2011)

2.1.1 Definition of financeability

Financeability refers to the capacity of a business to finance its activities – including its day-to-day operations and its capital investments to replace, renew and expand the infrastructure required for these activities. In this report, we use the term interchangeably with financial sustainability, particularly short-term financial sustainability.

2.1.2 Objective of the financeability test

The objective of the financeability test is to assess financial sustainability of the utility. We believe that this enhances the transparency, consistency and certainty of the regulatory regime.

Under section 15 of the *Independent Pricing and Regulatory Tribunal Act 1992*¹ the Tribunal is required to consider, among other matters:

- ▼ the impact on pricing policies of borrowing, capital and dividend requirements of the government agency concerned, in particular, the impact of any need to renew or increase relevant assets section (15(1)(g))
- ▼ the standards of quality, reliability and safety of the services concerned section (15(1) (l)).

We do not determine the financing and dividend policies for the utilities – these are matters for their managers and owners. However, if the utility is not financially sustainable this may affect its ability to:

- ▼ fund the provision of services
- ▼ service and repay debt and meet reasonable dividend requirements
- ▼ access debt markets for new borrowing requirements.

For example, an increase in actual gearing requirements may signal that the cost of debt may increase in the future. For a privately-owned utility, if the financial position deteriorates sufficiently it may not be able to fund service provision, including essential capital expenditure. A government-owned utility may be able to continue to access debt markets but its debt costs will increase due to increases in loan guarantee fees. The subsequent deterioration in its financial position may impact on the credit rating for the state.

Furthermore, if a regulatory decision meant that an otherwise efficient and well-managed utility were unable to fund its operation, the credibility of the regulatory regimes could well be questioned.

A UK regulator's primary legislative obligation is to protect the long-term interests of consumers. They have a duty to ensure that licence holders are able to finance their activities. In interpreting this obligation, UK regulators have found that the long-term commercial sustainability of services is integral to the protection of consumers' long-term interests. They have also found that consumers' interests are not advanced if investment in continued service provision is not commercially viable – or if prudent and efficient operators fail on commercial grounds. Therefore, they consider they are required to examine the financeability of a prudent, efficient operator.

¹ Some reviews may take into account different considerations. For example, we regulate electricity and gas retail prices under the *Electricity Supply Act 1995* and *Gas Supply Act 1996* respectively and bus and ferry fares under the *Passenger Transport Act 1990*.

The practice of Australian regulators varies, in part depending on the functions conferred on them by legislation and the discretion provided. For example, the Economic Regulation Authority of Western Australia (ERAWA) cross-checked for financeability as part of its inquiry into the funding arrangements of Horizon Power² and Victoria's Essential Services Commission³ analyses financial ratios to complement the building block approach.

2.1.3 The previous test

Under the financeability test set out in 2011⁴ we:

- ▼ determined the appropriate risk profile for the regulated business (very low, low, average, high or very high), based on the risk category assigned to it by NSW Treasury
- ▼ measured the business's likely financeability in each year of the determination period by using its forecast cash flows and its **actual gearing ratio** to compute the following financial ratios:
 - funds from operations cover
 - funds from operations/total debt
 - debt gearing
 - pre-tax interest cover
- ▼ computed its likely or notional credit rating in each year of the determination period, based on the appropriate risk profile and these financial ratios
- ▼ determined whether the business faces potential financial concerns over the determination period by identifying any years when its notional credit rating falls below our benchmark credit rating of between BBB+ and BBB
- ▼ identified the likely reasons why the notional credit rating is below this benchmark.

2.1.4 The role of the financeability test in setting prices

The financeability test is not an alternative means of setting prices and does not displace our normal approach. If we identify a financeability issue, we will consider if it is significant and:

- ▼ if it can best be addressed by the business and its owner
- ▼ if not, whether a temporary regulatory adjustment is required.

² ERAWA, *Inquiry into the funding arrangements of Horizon Power*, March 2011, p 104.

³ ESC 2012, *Barwon Water Application for Price Adjustment: Final Decision*, June 2012.

⁴ IPART, *Financeability tests and their role in price regulation*, January 2011.

Our current framework specifies that we may choose a weighted average cost of capital (WACC) above the mid-point of the range or include an explicit financeability allowance, which will subsequently be returned to customers.

We set prices for regulated businesses using a building block approach where prices are set on the basis of forward-looking estimates of efficient operating costs and asset costs (ie, return of and on assets). The asset costs are based on an initial regulatory asset base (RAB), which is rolled forward by indexing it for inflation, adding efficient capital expenditure and deducting depreciation. Because the asset base is indexed for inflation the rate of return provided is a real rate of return. Another consequence of this approach is that part of the return in any one year (the compensation for inflation) occurs as an increase in the RAB and hence increased cash flows in future years.

In principle, this approach allows the utility to recover its costs and earn a reasonable rate of return over the life of the assets. Hence, the building block approach should allow a business to remain financially sustainable over the life of the assets. However, financeability problems may arise due to a mismatch between revenues and costs under the building block approach due to:

- ▼ a mismatch between the term of financing and asset lives, particularly if there is a single dominant asset, or wave of capital expenditure
- ▼ a mismatch between the price path specified in real terms and the financing of the utility in nominal terms.

We consider that the responsibility for addressing short-term financeability issues should rest in the first instance with the utility and its owners. However, if it is not feasible for them to address a financeability shortfall, we may consider a transparent, short-term, and reversible adjustment to regulated prices/revenue.⁵

2.1.5 Application of the financeability test

The test set out in January 2011 envisaged that we would assess financeability in both the draft and final reports of our price reviews. However, it did not identify the sectors or reviews to which it would be applied.

2.2 Assessment of financeability in the 2012 water reviews

During our 2012 reviews of prices for Sydney Water and the Sydney Catchment Authority, NSW Treasury advised us that the ratings model they had previously provided was no longer available and could not be relied on for our reviews. As this model was central to the operation of the financeability test set out in January 2011, that test become unworkable and we adopted a new approach.

⁵ See IPART, *Financeability Tests and their Role in Price Regulation*, January 2011, pp 2-3.

In our 2012 reviews for Sydney Water and the Sydney Catchment Authority, we did not estimate a notional credit rating or use achievement of a specific credit rating as a test of financeability. However, we did undertake quantitative analyses of several key ratios as a basis for judging the financeability of the utilities. While the ratios and their benchmarks drew on public information on the quantitative component of the rating agencies' analysis, in practice, this is only one component of the rating process. In the case of Moody's, the quantitative analysis has a weight of only 40% in the overall assessment.

We decided to use Moody's set of financial ratios from their rating methodology for global regulated water utilities. We used these ratios because:

- ▼ their application to the regulated water sector was well documented by Moody's
- ▼ they are not significantly different from the ratios we previously used.

We also included one additional ratio, the earnings before interest and tax (EBIT) interest cover, so that stakeholders could easily compare our new set of ratios to our previous financeability test.

We did not attempt to replicate a Moody's rating and we do not favour Moody's over any other rating agency. We used these ratios because they are well-accepted and their use by the rating agency was well documented.

In assessing Sydney Water's financeability over the 4 years of the 2012 determination⁶, we analysed its forecast financial performance, financial position and cash flows. Using our financial models, we forecast a range of financial ratios and assessed Sydney Water's financial strength and ability to service and repay debt. We also modelled these ratios for the following price determination period.

We calculated the financial ratios using Sydney Water's actual gearing ratios and forecast cash flows based on our pricing decisions. The ratios we used were:

- ▼ funds from operations interest cover
- ▼ debt gearing (regulatory value)
- ▼ funds from operations over total debt
- ▼ retained cash flow to capex
- ▼ EBIT interest cover.

⁶ IPART, *Review of prices for Sydney Water Corporation's water, sewerage, stormwater and other services from 1 July 2012 – Final Decision*, June 2012

2.3 Scope of this review

2.3.1 Why do we need to update our financeability test?

As noted above, the financeability test we set out in 2011 is no longer workable. Hence, it must be updated and replaced. In its place, we expect to use the approach set out in our 2012 determination of the maximum prices for Sydney Water and the Sydney Catchment Authority⁷. We are also taking the opportunity to consult on the scope of application of the financeability test, which was left unclear in 2011, and the form of a possible financeability adjustment.

While we considered a number of these issues in the above 2012 determinations, we are now seeking to engage with a broader group stakeholders. This paper is concerned with:

- ▼ the interest rate used in the financeability test
- ▼ the methodology used to conduct the financeability test
- ▼ the types of financeability adjustments we may make
- ▼ clarification of the price reviews in which the application of the financeability test will apply.

2.3.2 The estimation of the cost of debt

Our 2011 financeability test used the notional interest cost. This allowed us to assess the financeability of a utility based on the benchmark debt cost and leave the utility to manage their debt portfolio. However, we have become aware that, in cases where notional debt costs vary considerably from actual debt costs, this methodology may make the short-term assessment of financial viability unreliable. In our 2012 Sydney Water price determination we used actual interest costs.

2.3.3 The financial ratios used

This paper presents our preliminary view (Section 6) on how we will conduct the financeability test in the future and what financial ratios we will use. It provides our stakeholders with an opportunity to provide input on how we should conduct the financeability test in future price reviews.

⁷ 2012 determinations available on our website: www.ipart.nsw.gov.au

We also note that much of the discussion in this paper is based on Moody's published rating methodologies. As noted above, we do not favour any one rating agency over another. The reason we use Moody's in this paper is that they provide a readily available rating methodology for global regulated water utilities. We believe that this provides the most relevant and transparent methodology currently available.

2.3.4 The benchmarks for these ratios

We propose to assess our financial ratios against a series of benchmark ranges for our individual ratios. The aim of this assessment is not to estimate a notional credit rating, but to test if a utility is likely to be financially sustainable during a regulatory period.

While we will not estimate a notional credit rating, we propose that our financeability test take account of the benchmark ranges of credit rating agencies for financial ratios of investment grade utilities.

2.3.5 Can we – or should we – estimate a credit rating?

It is important to distinguish between a full credit rating and a regulatory financeability test.

Credit ratings are generally provided to individual debt issuances at a business's request. They attempt to provide, in the case of Moody's, a relative measure of expected loss.

We are not required to undertake such an assessment and hence we do not believe that our financeability test should include a credit rating.

2.3.6 Scope of application of the financeability test

Our 2011 financeability framework⁸ did not indicate the reviews to which it would be applied. By implication, it suggested application in all reviews and price determinations.

However, the utilities and businesses we regulate have widely different characteristics. Some are profitable, commercial businesses (eg, urban water suppliers), with most of their services sold at regulated prices. Others, such as CityRail, rely heavily on government subsidies. Some (eg, electricity retailers) generate less than half of their revenues from regulated services. Still others (eg, Sydney buses and ferries) obtain their revenue from contract payments that are independent of the regulated fares.

⁸ IPART, *Financeability Tests and their Role in Price Regulation*, January 2011.

This paper considers whether the financeability test is equally relevant to all these sectors/reviews.

3 What is the appropriate cost of debt?

The cost of debt is a function of the level of gearing and average interest rate on the debt. For determinations prior to the 2012 Sydney Water price review, we used the benchmark interest rates assumed in calculating the WACC to calculate forecast interest expense. However, we used the actual gearing rather than notional gearing. Hence, the cost of debt used in the financial sustainability test was a mix of actual costs and benchmark costs.

We now consider that it is more appropriate to use the actual interest expense in our financeability test. This will give us a better picture of a utility's financial sustainability. We started using actual interest expenses in our financeability test in our 2012 Sydney Water price review. The actual interest expense used is the forecast actual interest expense provided by the utility.

3.1 Practice of other regulators

In their financeability tests UK regulators tend to use notional gearing and notional debt cost assumptions.

- ▼ For example, in its PR09 price review⁹, Ofwat used a notional gearing level, the actual cost of debt for existing debt and the notional cost of debt for new capex.
- ▼ Ofgem uses the notional gearing level and the notional cost of debt.

Ofgem also runs scenarios on its financeability test. They do not, however, test for financeability at actual gearing and cost of debt levels. The aim of their financeability test is to ensure that a notional stand-alone licensee is able to finance their activities. Generally, UK regulators aim to treat all businesses they regulate equally.

3.2 Assessment of options

Our preliminary view is that we will use the utility's actual cost of debt in the financeability test. We recognise that, in any given year of a regulatory period, the actual cost of debt will be the weighted average of the cost of the existing debt and the cost of any new debt issued during this period. The advantages of using the actual cost of debt in the financeability test are that it:

- ▼ is more consistent with the role and objectives of the financeability test
- ▼ increases the internal consistency of the assumption in the test.

⁹ <http://www.ofwat.gov.uk/pricereview/pr09faqs/>

The options being considered in projecting debt costs for the financeability test are:

- ▼ to continue our current approach of using actual gearing and notional interest rates
- ▼ to use the actual gearing and actual debt costs for the utility.

The advantages of using the actual cost of debt are:

- ▼ consistency with the purpose of the financeability test – as a cross-check whether the utility will in practice be able to finance its operations over the regulatory period
- ▼ consistency with remaining assumptions – including use of actual gearing, and actual tax expense.

The disadvantages include:

- ▼ actual interest cost is influenced by the utility's financing strategy and rating
- ▼ having difficulty implementing the test when actual gearing is substantially higher than notional gearing.

The advantage of using benchmark interest rates is that they are not affected by business financing decisions.

The disadvantage is that using benchmark interest rates is inconsistent with the objective of the test and other assumptions, such as the actual gearing level.

Our preliminary view is that we will use the actual cost of debt.

We could estimate the actual cost of debt purely on the cost of the existing debt. However, this would not take into account the cost of the debt issued during a regulatory period. The options we would consider are:

- ▼ Estimate interest expense based on the weighted average of the actual cost of existing debt and projected interest cost for new debt issuances. New debt will be estimated based on the refinancing of a proportion of existing debt and the financing of new capital expenditure.
- ▼ Using only the cost of debt on existing debt.

Our preliminary view is that we prefer using a weighted average of the existing and new debt costs. We welcome stakeholder comments on other possible approaches.

IPART seeks comments on the following

- 1 Do stakeholders agree that the actual interest rate is appropriate for the purpose of conducting the financeability test? How should we estimate it?

4 How should financeability be tested?

Our 2011 financeability test is based on risk categories previously provided by NSW Treasury. Treasury has advised that these categories are now outdated and we used a different test for the 2012 determination of the maximum prices for Sydney Water and the Sydney Catchment Authority.

The purpose of this Section is to seek stakeholder comment on:

- ▼ if we should apply the 2012 Sydney Water financeability test to other price reviews
- ▼ how we should assess financeability
- ▼ if and how we should rank the ratios we use
- ▼ if stakeholders prefer another type of test.

Prior to the above 2012 determinations we used a notional credit rating to assess the financial sustainability of the utility. We now propose to base our financeability test on 4 key financial ratios without giving a notional credit rating, supplemented by analysis of the cash flow and balance sheet projections should these ratios suggest a potential financeability issue. We chose these ratios because they shed light on the following key questions:

- ▼ Will the utility be able to service and repay its debt in the short term?
- ▼ Will the utility be able to fund future capex through debt?
- ▼ Will the utility be able to fund future capex through equity or retained earnings?
- ▼ Can the utility meet its debt payments from operating income?

4.1 Should we try to determine a proxy rating?

Prior to the 2012 determinations, we would form an opinion on whether the utility would continue to maintain an investment grade rating. We reconsidered this in the 2012 determinations and came to the view that we should not seek to determine the likely credit rating.

As Appendix A shows, the rating agencies' assessment of credit ratings relies heavily on qualitative as well as quantitative analysis. Rating agencies have substantial intellectual property invested in the qualitative analysis that feeds into a credit rating. We cannot replicate their qualitative analysis in a transparent way. Hence, we now consider that it is inappropriate to base the financeability test on an attempt to replicate the ratings of the rating agencies.

However, the quantitative ratios used by the rating agencies provide a useful reference point because of their wide currency. They reflect accumulated experience on the key ratios that provide a guide to financeability. The benchmarks used by at least one of the rating agencies (Moody's) for these ratios are also publicly available and can inform our analysis. However, they are only part of the assessment by rating agencies. Our use of these ratios does not imply that we are seeking to determine a rating.

The financeability test based on quantitative analysis acts as a filter to identify potential financeability issues. There will be a role for judgement and complementary analysis of projected cash flows and balance sheets where the ratios suggest there may be a potential financeability issue.

4.2 What financial ratios should we use?

At this stage our preferred option for a future financeability test is to use the 4 ratios used in Moody's published methodology on the rating of global regulated water utilities (see Appendix A). This has the advantage that it is consistent and well-documented.

We believe that it is important to base our financeability test on a well-documented and transparent methodology. Our preliminary view is that the use of the following ratios best meets these requirements:

- ▼ **funds from operations interest cover:** calculated as (funds from operations plus interest expense)divided by interest expense
- ▼ **debt gearing (regulatory value):** calculated as debt divided by (regulatory value of fixed assets plus working capital)
- ▼ **funds from operations over net debt:** calculated as funds from operations divided by net debt
- ▼ **retained cash flow to capex:** calculated as (funds from operations minus dividends paid) divided by capex.

We used these 4 ratios as part of our financeability test for the 2012 Sydney Water and Sydney Catchment Authority price reviews.

IPART seeks comments on the following

- 2 Are the ratios set out above (Section 4.2) appropriate to assess the financial sustainability of a utility over a regulatory period?

4.3 Should we adjust the inputs to the ratios?

Prior to the financeability test we used in our 2012 Sydney Water and Sydney Catchment Authority price reviews, we based our ratio analysis on notional financial statements calculated from our building block model. This is different from the way rating agencies would conduct their ratio analysis. They usually do not have access to the regulators' building block model and rely on published financial statements. Since accounting numbers may differ substantially from actual cash flows, rating agencies commonly make adjustments, to the accounting numbers (for example for operating lease payments) they obtain from financial statements (Appendix A).

The financial ratios will better reflect the ratios computed by credit rating agencies or other financial analysis if we adjust the notional financial statements to align with the timing of actual cash flows. We propose to adjust for operating leases and pension obligations as we believe that these have the greatest impact. Making these adjustments would require us to review the financial statements of utilities.

IPART seeks comments on the following

- 3 Is it appropriate to adjust the notional financial statements for operating leases and pension obligations?

4.4 Should we rank the ratios?

We are also proposing to rank our financial ratios in order of importance. This allows us to focus on the ratios that are most relevant for us when assessing the likely financial sustainability of a utility.

Moody's published rating methodology for global regulated water utilities provides weights for its financial ratios.¹⁰

Table 4.1 Moody's weightings for financial ratios

Financial ratio	Moody's overall weight in rating
Funds from operations interest coverage	15%
Net debt to regulated asset base	15%
Funds from operations to net debt	5%
Retained cash flow to capex	5%

Source: Moody's Investors Service, *Rating Methodology. Global Regulated Water Utilities*, December 2009.

¹⁰ Moody's Investors Service, *Rating Methodology Global Regulated Water Utilities*, December 2009.

Our preliminary view is that, in considering the results of the financial ratio analysis, we will use the rankings proposed by Moody's. However, we do not propose to assign a fixed quantitative weight. We consider this balances providing guidance to stakeholders with retaining flexibility to considering the implications of the quantitative analysis.

IPART seeks comments on the following

- 4 Should we rank financial ratios in order of importance? What is the appropriate ranking?

4.5 What benchmarks should we use?

Prior to the 2012 Sydney Water and Sydney Catchment Authority determinations we used benchmarks for the financial ratios based on the utility maintaining a credit rating of between BBB/BBB+. This was based on the proposition that the utility should be able to maintain an investment grade credit rating. In fact, it provided some headroom in that the minimum rating for investment grade bonds is BBB-.

We no longer propose to determine a notional credit rating in future price reviews or give a credit opinion. However, we will consider published benchmarks for the ratios we use in our financeability test as these provide a credible, transparent and public reference point. As the benchmarks vary according to rating, the question is: Which benchmark, or benchmarks, should be used?

4.5.1 Approach of other regulators

The UK energy regulator Ofgem's approach to the financeability test is outlined Box 4.1. Ofwat, the UK water regulator also uses a financeability test. Ofwat's approach is outlined in Box 4.2.

Box 4.1 Ofgem’s financeability test

In its cost of capital, Ofgem sets the debt margin with reference to a 10-year trailing average of the yields for sterling (GBP) corporates with an A credit rating and GBP corporates with a BBB credit rating. This means that Ofgem does not have a specific financeability target credit rating in its financeability test.

In its financeability test, Ofgem does not specify which credit rating level it expects a business to meet. It established a range of benchmark levels for financial ratios covering the spectrum of the credit rating range used for the cost of debt.

This allows Ofgem to assess the financial performance of a business with reference to the range of credit ratings used for the debt margin.

Ofgem further specifies that it does not expect a business to meet a certain benchmark level for each financial ratio in every year, which is consistent with what a rating agency would do. Ofgem also used 3 years of historical data to compute its financial ratio analysis. Ofgem applies the following credit metric ratio benchmarks. Not all rating agencies publish benchmarks for all ratios.

Table 4.2 Ofgem’s credit metric ratios

	Fitch		Moody’s		Standard & Poor’s	
	A	BBB	A	BBB	A	BBB
Net debt/regulated asset base (%)	50-60	>65	45-60	60-75	<70	>70
Funds from operations (FFO)interest cover (x)	4.0-5.0	<4.0	3.5-5.0	2.5-3.5	>3.5	2.5-3.5
Adjusted interest cover (x)	>1.7	<1.7	2.0-4.0	1.4-2.0	-	-
FFO/net debt (%)	-	-	12-20	8-12	>12	8-12
Retained cash flow/capex (x)	-	-	1.5-2.5	1.0-1.5 ^a		

^a Ofgem notes that, according to Moody’s, utilities undergoing a large capex program which do not benefit from accelerated depreciation are expected to score this metric at a Ba level, ie, in the range 0.5-1.0.

Source: Ofgem, *Decision on strategy for the next transmission and gas distribution price controls – RIIO-T1 and GD1 financial issues*, 31 March 2011, p 40.

The UK water regulator also undertakes a financeability test as part of its price reviews.

Box 4.2 Ofwat's financeability test

Ofwat defines its financeability test as a review of the projected levels of a package of financial ratios against target levels. These are consistent with the levels that credit rating agencies and capital markets consider necessary to maintain a credit rating well within the investment grade range. In carrying out the financeability assessment, Ofwat also makes assumptions on dividend payments.

As part of their PR09 water prices review, Ofwat used the financial ratios shown in Table 4.3. It targeted levels in the financial ratios consistent with an A-/A3 credit rating. For water only businesses, Ofwat used higher target levels (compared to water and sewerage businesses) to reflect a view that the small companies may have a different exposure to asymmetric risks. Ofwat notes that the ratios they use and the threshold levels they apply could change over time, depending on the way in which they regulate the sectors and the degree to which businesses are exposed to cash flow risk. In addition to the ratios in the table below, Ofwat also considered the dividend payout ratio^a. It notes that there is less consensus about the level of dividend cover needed, but notes that a business would not want to have a level below 1.0 times for a long period.

^a Dividend cover is the ratio of a business's net income over the dividend paid to shareholders.

Table 4.3 Ofwat's key financial ratios – PR09

Financial ratio	Water and sewerage	Water only
Cash interest cover	About 3 times	About 3.5 times
Adjusted cash interest cover	About 1.6 times	About 1.8 times
Funds from operations/debt	About 13%	About 17%
Retained cash flow/debt	About 8%	About 10%
Gearing	Below 65%	Below 60%

Source: Ofwat, *Financeability and financing the asset base – illustrations of the financeability problem*, March 2011, p 22.

4.5.2 Current credit ratings

This Section summarises the current credit ratings of global water utilities and Australian electricity businesses. While the credit ratings of utilities are based on quantitative and qualitative factors, they provide some guidance to the expected results of the financial ratio analysis.

Qualitative analysis has a large weight in the ratings process, particularly in the regulatory environment. Assuming an unchanged regulatory environment, we would expect that an investment grade credit rating target on the quantitative analysis would provide some headroom before a utility was downgraded to non-investment grade.

For global water utilities:

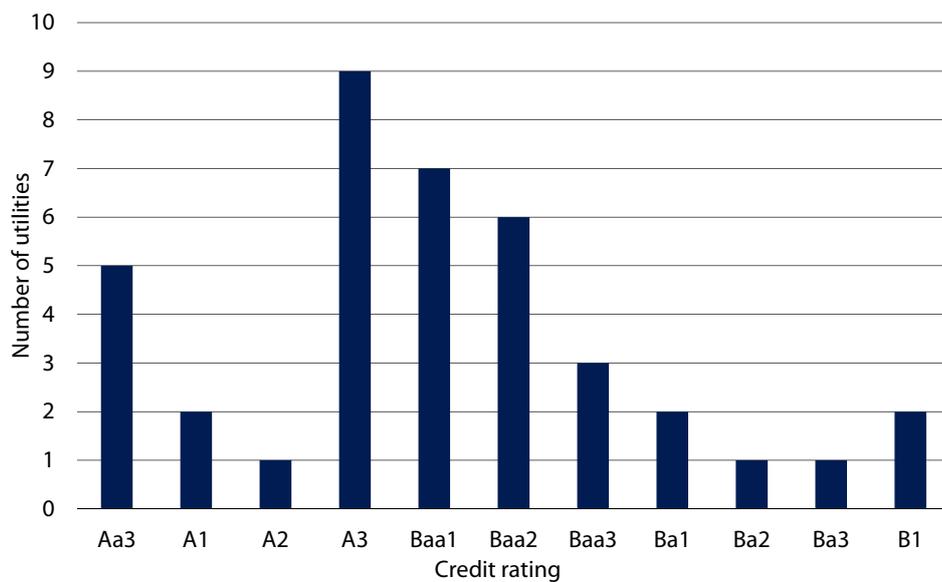
- ▼ most are investment grade rated with the exception of 6
- ▼ the mode of the credit ratings is A3, which corresponds to an A-
- ▼ the highest rating is Aa3 corresponding to AA-.

For Australian electricity utilities:

- ▼ all are investment grade rated
- ▼ the mode of the credit ratings is A1 which, corresponds to an A+
- ▼ the highest rating is A1 corresponding to A+.

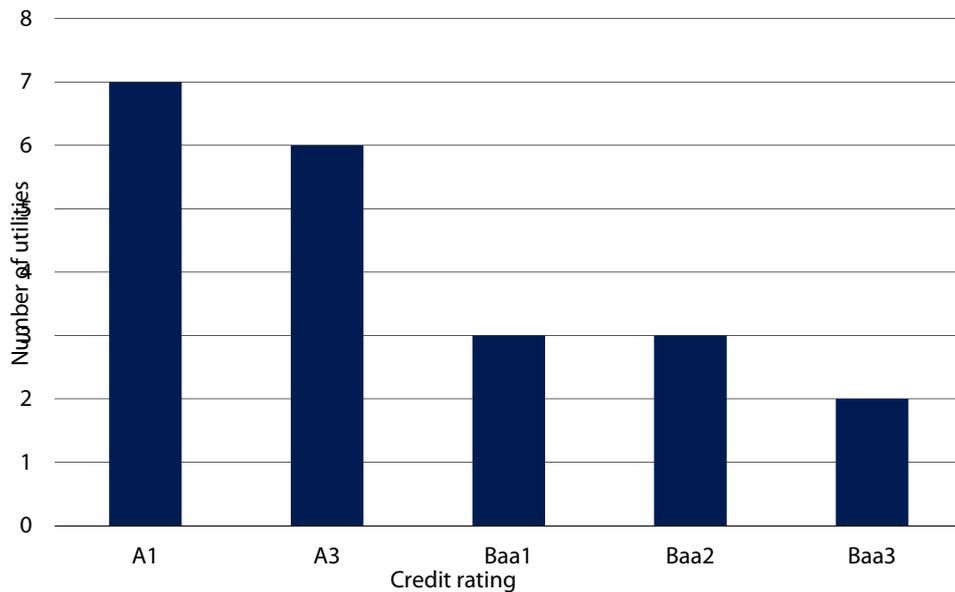
Overall, Australian electricity utilities are rated higher than global water utilities.

Figure 4.1 Rating distribution – global water utilities – August 2012



Data source: Moody's, accessed 14 August 2012. www.moody.com.au

Figure 4.2 Rating distribution – Australian energy utilities – August 2012



Data source: Moody's, accessed 14 August 2012. www.moody.com.au

4.5.3 Options for determining the reference benchmarks for the financial ratios

We consider that, if we provide guidance on the ratios to be used for the quantitative analysis, we should also provide guidance on the reference points, or benchmarks, to be used for this analysis.

The ultimate decision on which benchmark levels we use in our financeability test will depend on a number of factors, including which target credit rating we use for the cost of debt and the definition of investment grade.

We identified 2 options:

1. Use the financial ratios consistent with the rating benchmark in the WACC analysis to establish the benchmarks for the financial ratios. The benchmark debt cost for our WACC analysis is a BBB/BBB+ corporate bond.
2. Use the financial ratios consistent with a generic investment grade benchmark with BBB- (Standard & Poor's and Fitch) or Baa3 (Moody's) as a floor.

The 2 options use publicly available and widely used information on benchmarks for these indicators. While we are not trying to determine a rating, we consider that use of these benchmarks would add to the credibility and predictability of test implementation.

The advantage of Option 1 is the apparent consistency between the financeability test and the WACC. However, it should be noted that the financeability test is not a means of determining the price but a means of helping us assess whether the prices determined through the building block process are not so low as to create a financeability problem. From this perspective it could be argued that the reference points used for the financeability analysis should be no higher than those used for the WACC analysis, but could be lower.

The advantage of Option 2 is that it would test financeability against the actual tipping point where debt might be downgraded from investment grade to non-investment grade. It focuses on the financeability problem without using the reference credit rating from the notional WACC.

Our preliminary view is that Option 2 better reflects what we are trying to achieve with the financeability test, that is, testing for financial sustainability of the utility over a regulatory period.

IPART seeks comments on the following

- 5 Do stakeholders agree that we should use Option 2 (Section 4.5.3) as our reference benchmark for the financial ratios?

4.6 What happens if a ratio is not met?

Once we have completed our financial ratio analysis and compared the results to our benchmark levels and ranges, we can assess a utility's forecast financial performance.

We do not believe that a utility has to meet every ratio in every single year. If a ratio fails to meet a benchmark, we will investigate the likely implications. Our financeability test is based on forecasts and is a tool which may help us to investigate individual ratios, which may include sensitivity analysis.

Ofgem takes a similar approach:

Financeability analysis necessarily involves an element of judgement. Moody's for example has historically had a favourable view of the regulatory framework in the UK and this has allowed companies to maintain certain credit ratings, even where key financial metrics may have fallen modestly outside the ranges set out for the relevant broad category under the agency's methodology.

We (Ofgem) take a similar approach and do not expect companies to pass all the ratios in all years. In particular, we seek to understand better any instances in which a network company:

- fails to meet a target ratio for a sustained period (ie several years)
- deviates significantly from a target ratio (either above or below) for more than one year in a row

- repeatedly fails one target ratio while passing others.¹¹

Our 2011 framework made it clear that responsibility for addressing financeability issues rests in the first instance with the utility and its owners. If we consider this is not feasible we will consider making a financeability adjustment. In our 2011 framework¹², we included 2 types of adjustments:

1. choose a WACC above the mid-point
2. include an explicit financeability allowance in the building block model which will be returned to customers once the financial health of the utility has improved.

The first type of adjustment is NPV positive. This means that it will add revenue to the business over and above the building block requirements. This additional revenue will not be returned to customers in the future unless the WACC is subsequently set below the mid-point.

The second type of adjustment is NPV neutral. This means that the adjustment ensures the utility's financeability in the short term. It could be implemented as a transparent increase in depreciation or through the creation of a separate reserve to be returned to customers in subsequent periods. Both approaches are transparent and do not alter the NPV of the revenues over time. This is consistent the building block model, ensuring long-term financeability.

Our preliminary view is that we will limit financeability adjustments to NPV neutral approaches. We also favour an explicit and transparent allowance.

IPART seeks comments on the following

- 6 Do stakeholders agree that financeability adjustments should be limited to NPV neutral approaches?

4.7 Peer reviewing the results of the financeability test

Where the assessment of financeability is difficult or contentious, we may obtain external advice on the analysis and the sustainability of the business's financial position. This will provide us with assurance that the results of our financial ratio analysis and our interpretation are appropriate for the individual circumstances of the business.

¹¹ Ofgem, *Decision on strategy for the next transmission and gas distribution price controls – RIIO-T1 and GD1 financial issues*, March 2011, p 40.

¹² See IPART, *Financeability Tests and their Role in Price Regulation*, January 2011, pp 2-3.

5 To which sectors should the financeability test apply?

As noted previously, the 2011 financeability test was silent regarding the sectors to which it applied. This should be clarified to enhance the consistency and certainty of the regulatory framework. We propose to apply the financeability test to reviews where appropriate (including reviews we undertake under Section 9 of the IPART Act), subject to the specific terms of reference) except where:

- ▼ the prices we regulate do not determine the revenues of the service provider
- ▼ the service provider is not established as, or part of, an entity with a distinct capital structure.

Where we use an approach other than the building block analysis in determining the revenues and prices, we will consider whether a separate financeability analysis is necessary. If we judge that a separate test is needed, we will consider the form it should take.

5.1 Context and past practice

As noted above, the utilities and businesses we regulate have widely different characteristics. Some are profitable, commercial businesses with most of their services sold at regulated prices while others rely heavily on government subsidies. In some cases only a portion of the services provided by the business are regulated, for example, revenues for Sydney buses and ferries are independent of the regulated fares.

Prior to 2011, we undertook financeability analysis for our medium-term price paths for water, electricity, and gas networks. Financeability tests have not been applied to the transport determinations. Our first multi-year price path in transport was the CityRail determination in 2008¹³. This determination used the building block approach to determine the revenue requirement but we did not undertake a financeability analysis. CityRail was not a state-owned corporation and was prohibited from paying dividends. CityRail, like metropolitan buses and Sydney Ferries, receives payments under a service contract with the Government and its revenues do not depend on fares.¹⁴

¹³ Available on our website: www.ipart.nsw.gov.au

¹⁴ In effect, the contracts are gross contracts. The payments from Government cover the costs of the services provided and the farebox revenue is not retained by the operator, in this case CityRail.

Competitive neutrality requires that prices for regulated retail energy should not be set below the commercially sustainable level for an efficient new entrant. The prices were set using several approaches to assessing the appropriate retail margin but we did not apply the financial ratio analysis used in the financeability tests.

5.2 When should we apply the financeability test?

The financeability test seeks to ensure that an efficient operator can fund provision of the services required (including new investment) having regard to the commercial interest of its owner/shareholders.

We do not consider that the financeability test should apply where our price determinations do not affect revenues – this would exclude CityRail, Sydney Ferries and metro and regional bus services.

Similarly, it does not seem to be appropriate to apply the financeability test where we regulate many operators using the cost index approach. This approach does not provide the necessary information to test financeability. An attempt to undertake financeability testing would add significantly to the burden of regulation. This would exclude taxis, rural and regional buses and private ferries from financeability tests. Local government special variations are subject to separate, explicit consideration of financial sustainability.

It does not seem appropriate to apply the financeability test where the service is provided through a department without a commercial capital structure. This suggests that the test should not be applied to the NSW Office of Water (NOW).

Where the services concerned are a subset of the services provided by a commercial entity, it is possible to apply the financeability test. This requires an allocation of capital structure and costs if it is not already established as a separate controlled entity. Hence, in principle, the framework should apply to Essential Energy's water services to Broken Hill and the regulated retail energy services.

Application of the framework to regulated retail energy businesses would have regard to their terms of reference, legislation and form of regulation, as well as the characteristics of their services. In contrast to the other services we regulate, retail energy suppliers do not have large asset bases, but face significant market volatility, which affects their financial requirements.

Essential Energy's water operations receive significant government subsidies. In principle, this should not affect the applicability of the financeability test. The subsidies are part of the revenue base (especially if they are well-defined and linked to outputs). Under our building block approach, the sum of the subsidies and regulated revenues should match the efficient costs and the service provider should be financially viable over the long term.

In summary we do not propose to apply the financeability test where:

- ▼ the prices we regulate do not determine the revenues of the service provider
- ▼ the service provider is not established as, or part of, an entity with a distinct capital structure.

These principles should apply to reviews we undertake under section 9 of the IPART Act (subject to the specific terms of reference).

Table 5.1 Applicability of the financeability test

Industry/business	Financeability framework applied?	If not, why?
Sydney Water	Yes	
Sydney Catchment Authority	Yes	
Hunter Water	Yes	
Gosford/Wyong water	Yes	
Essential Energy Water	Yes	
NOW	No	Government department
Electricity Retail	Principles apply/application and test may be modified	
Gas Retail	Principles apply/application and test may be modified	
CityRail	No	Operates under a service contract
Other public transport	No	Operate under a service contract
Taxis	No	Increase in burden of regulation
Local government	No	Other specific tests for financial sustainability

IPART seeks comments on the following

- 7 To which reviews and sectors should we apply the financeability test?

6 Our preliminary view

Our preliminary view is that we will conduct the financeability test by:

1. Converting cash flows from our building block model into a set of notional financial statements, including a profit and loss statement, a balance sheet and a cash flow statement.
2. Adjusting relevant items in the profit and loss statement, balance sheet and cash flow statement. These adjustments will be calculated based on figures in the latest financial statements of a utility.
3. Forecasting the actual interest cost over the upcoming regulatory period.
4. Determining a target range for the financial ratios used in the financeability test.
5. Calculating the following financial ratios:
 - funds from operations interest cover: calculated as (funds from operations plus interest expense) divided by interest expense
 - debt gearing (regulatory value): calculated as debt divided by (regulatory value of fixed assets plus working capital)
 - funds from operations over net debt: calculated as funds from operations divided by net debt
 - retained cash flow to capex: calculated as (funds from operations minus dividends paid) divided by capex.
6. Comparing the results of the financial ratio analysis against the range of benchmark levels and trends over time.
7. Assessing the financial sustainability of a utility over the upcoming regulatory period.
8. If necessary, considering financeability adjustments.

The major changes proposed compared to our 2011 financeability framework are:

- ▼ to use the actual interest cost to compute the financial ratios used in our financeability test
- ▼ not to provide a notional credit rating
- ▼ to assess financial sustainability with reference to a range of benchmark financial ratio levels and trends over time
- ▼ not to expect a utility to meet all the financial ratio benchmark levels in every year of a determination.

The financeability test:

- ▼ will not be applied in our public transport reviews, for NOW and for local government
- ▼ may be modified for energy reviews
- ▼ may be applied in reviews we undertake under Section 9 of the IPART Act subject to the specific terms of reference.

While we will not determine a notional credit rating in our price reviews, we believe that our proposed financeability test is well suited to achieve the objective of assessing a utility's financial sustainability over a regulatory period.

A Moody's rating methodology

Adjusting financial statements

Moody's makes a number of adjustments to financial statement figures prior to computing financial ratios. For operating lease and pension obligation adjustments, Moody's published methodology¹⁵ on standard adjustments attests the following.

Operating lease adjustments are made to take into account that these leases reduce a business's capacity to borrow. For operating leases, businesses do not recognise debt in their balance sheet, even though they are contractually obligated to for lease payments and a failure to make lease payments often triggers default. The standard Moody's methodology to capitalise operating leases consists of:

- ▼ **A balance sheet** adjusted by adding debt and fixed assets. Value of debt computed by using a factor between 4x and 10x, or, if the present value of the minimum lease commitments (using the incremental borrowing rate as the discount rate) is higher, use the present value.
- ▼ **An income statement** adjusted using the market convention to reclassify one-third of the rent expense to interest expense and the remaining two-thirds rent to "Depreciation - Capitalised Operating Lease" (a component of operating profit), and adjusted operating expenses.
- ▼ **A cash flow statement** reclassifying a portion of the rent expense from operating cash flow to financing cash outflow (CFF). Moody's also simulates capital expenditure for newly acquired leased assets by increasing the capital expenditures line in investing cash flows with a concomitant borrowing in CFF to fund capital expenditure.

Pension obligation adjustments are made to reflect the fact that any underfunded obligations relating to future defined benefit payments should be treated as debt. The standard Moody's methodology related to underfunded defined benefit pensions consists of:

- ▼ **A balance sheet** adjusted by recording as debt the amount by which the defined benefit pension obligation is underfunded.
- ▼ **An income statement** with pension expenses adjusted to eliminate smoothing. Net periodic pension income is excluded.

¹⁵ Moody's Investors Service, *Moody's Approach to Global Standard Adjustments in the Analysis of Financial Statements for Non-Financial Corporations*, December 21, 2010.

- ▼ **A cash flow statement** recognising only the service cost as an outflow from cash from operations. Employer cash pension contributions in excess of the service cost are reclassified from an operating cash outflow to a CFF. The cash flow statement is not adjusted if pension contributions are less than the service cost.

Rating factors

Moody's uses 4 key rating factors. These constitute its analytical framework for rating regulated water utilities and additional considerations. The key factors are:

- ▼ regulatory environment and asset ownership
- ▼ operational characteristics and asset risk
- ▼ stability of business model and financial structure
- ▼ key credit metrics.

The first 2 relate to the fundamental business characteristics of a water utility. The third factor aims to capture the dimension of credit risk associated with potential changes to an issuer's business or capital structure. The fourth comprises 4 key financial metrics that Moody's most commonly employ when examining regulated water utilities.

Table A.1 Moody's rating factors

Factor	Weighting
Regulatory environment and asset ownership	40%
Stability and predictability of regulatory environment	
Asset ownership model	
Cost and investment recovery	
Revenue risk	
Operational characteristics and asset risk	10%
Operational efficiency	
Scale and complexity of capital program and asset condition risk	
Stability of business model and financial structure	10%
Ability and willingness to pursue opportunistic corporate activity	
Ability and willingness to increase leverage	
Targeted proportion to revenue outside core water and wastewater activities	
Key credit metrics	40%
Funds from operations interest coverage	
Net debt to regulated asset base	
Funds from operations to net debt	
Retained cash flow to capex	

Source: Moody's Investors Service, *Rating Methodology. Global Regulated Water Utilities*, December 2009.

Table A.1 shows that 60% of Moody's rating may be based on quantitative factors. The largest quantitative factor is the regulatory environment and asset ownership. Moody's notes that, given continued government involvement in and ownership of many regulated utilities, they may also apply their government-related issuers' rating methodology.

Quantitative factors, or key credit metrics, account for 40% of the rating factors.

Credit rating benchmark ranges

Moody's publishes a set of benchmarks for the financial ratios it uses in its rating methodology for global regulated water businesses.

Table A.2 Moody's rating grid mapping for global regulated water utilities

Rating category	Aaa	Aa	A	Baa	Ba	B	Caa
	<i>Investment grade</i>				<i>Non-investment grade</i>		
(a) Adjusted interest cover OR funds from operations interest cover	>8.0x OR >10.0x	4.5-8.0x OR 7.0 - 10.0x	2.5- 4.5x OR 4.5- 7.0x	1.5- 2.5x Or 2.5- 4.5x	1.2- 1.5x OR 1.8- 2.5x	1.0-1.2x OR 1.5- 1.8x	<1.0x OR <1.5x
(b) Net debt/regulated asset base or Debt/Cap	<25%	25-40%	40- 55%	55- 70%	70- 85%	85- 100%	>100%
(c) Funds from operations / net debt	>40%	25-40%	15- 25%	10- 15%	6-10%	4-6%	<4%
(d) Retained cash flow/Capex	>3.5x	3.5-2.5x	1.5- 2.5x	1.0- 1.5x	0.5- 1.0x	0.25- 0.5x	<0.25x

Source: Moody's Global Infrastructure Finance, *Global Regulated Water Utilities*, December 2009.