Staff Paper 3

Financing Scottish Water

This staff paper has been produced by our office to assist stakeholders in responding to the Draft Determination. The material reflected in this staff paper has informed the preparation of the Commission's proposed conclusions. However, this staff paper does not form part of the Draft Determination. Accordingly, this staff paper should not be relied upon as expanding upon or replacing anything contained in the Draft Determination.

3.1 Introduction

Customers can enjoy stable charges only if Scottish Water has secure and sustainable access to finance. Staff Paper 2 underlined the importance of the governance and incentive arrangements put in place in 2005 to the delivery of benefits to customers, such as stable charges and improving services. It explains that without secure access to flexible finance, customers remain exposed to the risk of unnecessarily high charges.

The Scottish Government also asked that charges are set at levels that are consistent with the financial sustainability of Scottish Water. The Commission agrees that this is very much in the interests of customers. In assessing Scottish Water's financing needs the Commission adopts an approach that it believes should ensure that Scottish Water enjoys continuing financial strength.

This paper sets out:

- how Scottish Water's financing needs were assessed, noting how this has developed from previous Strategic Reviews;
- the Commission's proposals on changes to Scottish Water's regulatory capital value;
- the implications of Scottish Water's depreciation charges;
- Scottish Water's proposals and the Commission's assessment of the rate of return to allow for on this capital value; and
- the implications of the Commission's assessment for Scottish Water's financial strength.

3.2 Approach at the last Strategic Review

Fortunately for customers, Scottish Water is now financially strong. A key element of previous price reviews in 2001 and 2005 was to improve financial strength to the point where Scottish Water would be financially sustainable. The Commission targeted cash-based financial ratios to achieve this. In the last Strategic Review, it was possible to hold charge increases slightly below the rate of inflation whilst maintaining Scottish Water's financial strength.

At the last review, assessments were made of Scottish Water's cash operating costs, its annual interest payments and its annual investment to maintain and enhance its assets. The amount of revenue that was required from customers to meet these costs was then calculated, after taking account of available new borrowing. Annual levels of new borrowing were determined that would allow Scottish Water to comply with a suite of financial ratios that are used by Ofwat to assess financial strength. At the time of the last review in 2005, there was a possibility that Ministers would wish to take annual dividends from Scottish Water. Therefore pre-dividend cash ratios were applied that would have allowed for reasonable dividends to be taken.

The Commission signalled in the last review that it would move towards the method of charge setting that is widely used by other utility regulators in the UK. This method sets an assumed annual rate of return on a 'regulatory capital value' (RCV). For utilities that are in the private sector, this approach relies in part on market information about the rate of return for which investors are prepared to provide finance. Such market information is particularly useful in informing regulators about the underlying levels of risk that markets recognise are present in a particular utility sector. In the last review an appropriate RCV for Scottish Water was therefore assessed that would be consistent with the RCVs set by Ofwat for water and sewerage companies in England and Wales. The Commission also concluded that there was no evidence to suggest that the underlying risks of the industry in Scotland would be materially different to those in England and Wales.

3.3 The Commission's current approach

By setting an RCV for Scottish Water on a basis consistent with the water and sewerage sector in England and Wales, it is possible to assess the financial return that Scottish Water should require.

The approach begins by ensuring that Scottish Water's RCV for the next regulatory control period takes account of the relevant changes in its circumstances since 2006, mainly the level of investment, capital charges and inflation that have occurred or are expected to occur by 2010.

The required financial return to be earned on the RCV is assessed using a weighted average cost of capital (WACC). This comprises two elements – a cost of debt and a cost of equity. The debt is Scottish Water's actual debt plus assumptions the Commission makes about its new borrowing up to the end of the next regulatory control period. The equity is the level of the RCV minus total debt. This distinction of debt and equity is the same as that adopted by other regulators.

In order to reflect the full cost of risks that are recognised in the financial markets, the Commission proposes to assume a commercial cost of debt for Scottish Water. Assessing this cost is normally straightforward, but the current economic conditions have caused fluctuations in market rates. In coming to the conclusions in the Draft Determination evidence has been taken from transactions by utility companies in the UK over the past year.

The Commission assumes a commercial cost of equity, but takes into account the commitment by the Scottish Government that it will not seek a dividend from Scottish Water. Some commentators have argued that recent economic conditions may have increased the cost of equity, but the Commission is not persuaded that this is the case. In making its assessment, advice was sought from Professor Julian Franks of London Business School.

Projected financial ratios are checked to ensure that they satisfy a number of criteria for financial strength. In assessing financial strength, the Commission's approach is both to ensure that Scottish Water should continue to meet Ofwat's financial ratios and that its ratios are broadly consistent with the upper quartile of recent water company performance.

3.4 Changes in RCV since 2006

Scottish Water must earn a return on the investment it has made, so that it retains its financial strength. The RCV grows year by year with inflation, and with Scottish Water's investment in its assets. Assets depreciate over time and a downward adjustment is made to the RCV each year to reflect Scottish Water's depreciation and infrastructure renewals charges. Small adjustments are also made to take account of capital grants and disposal of assets.

In some circumstances, it may be necessary to increase or decrease this growth to reflect whether actual investment is in line with previous regulatory assumptions. Scottish Water claims that it had to invest significantly more than was assumed at the last review in 2005, and that this extra investment should be added to its RCV. Its principal argument is that the cost of procuring capital projects increased more rapidly in 2004-05 and 2005-06 than was assumed when prices were last set. It also claimed for the cost of new obligations placed on it by the Scottish Government. Scottish Water's claim has been examined in detail; the Commission considers that while many of the additional costs that were cited appear to be valid, there are offsetting factors to be taken into account. For example Scottish Water's claim does not set out the full impact of investment that has not been carried out, nor the benefits that it has gained from low interest rates and other favourable factors. The Commission therefore proposes to make no such adjustments to the RCV in the

Draft Determination. It will seek further information from Scottish Water in advance of the Final Determination.

Table 3.1 sets out the proposals on the changes in RCV since 2006.

Table 3.1: Proposals on changes to allow for in Scottish Water's RCV, 2006-10

	2006-07	2007-08	2008-09	2009-10
Closing RCV (previous year)	£3,751m	£4,052m	£4,554m	£5,051m
Inflation	£140m	£167m	£135m	£126m
Adjustments	£0m	£0m	£0m	£0m
Opening RCV	£3,891m	£4,219m	£4,690m	£5,177m
Capital expenditure	£413m	£626m	£693m	£690m
Depreciation charge	-£164m	-£192m	-£230m	-£259m
Depreciation of capital grants	£1m	£1m	£1m	£1m
Infrastructure renewals charge	-£88m	-£90m	-£100m	-£104m
Disposal of assets	-£2m	-£10m	-£1m	-£1m
Closing RCV	£4,052m	£4,554m	£5,051m	£5,504m
Average RCV for the year	£3,902m	£4,303m	£4,803m	£5,278m

3.5 The implications of Scottish Water's depreciation charges

Comparisons of financial strength must take into account Scottish Water's relatively high depreciation charge, compared with the water and sewerage companies in England and Wales. This charge has no effect on Scottish Water's cash return, but in order to compare its net return on the RCV on a like-for-like basis with the companies, an adjustment is necessary.

In the UK water industry there are two parts to the annual charge: an infrastructure renewals charge for infrastructure (mainly the pipes and sewers) that have to be maintained indefinitely; and a depreciation charge for other assets such as buildings, plant and machinery. The level of charge depends on the value of each asset owned by the business and on the expected life of that asset.

Scottish Water recently carried out a valuation of all its assets on a 'modern equivalent asset value' (MEAV) basis and re-examined its assumptions on asset lives. This should allow it to assess annual charges that broadly match the current annual cost of replacing assets as they become worn out. However, there is some uncertainty over the asset valuations. In its first draft business plan, Scottish Water estimated the total MEAV for 2007-08 at £36.2 billion, in 2007-08 prices. In its second draft business plan, this estimate (again for 2007-08 and in 2007-08 prices) increased by £6.3 billion to £42.5 billion. There were also significant changes to estimates of asset lives between the two business plans.

Information was therefore reviewed from the companies in England and Wales to assess whether Scottish Water's depreciation charges were sufficiently in line with England and Wales to allow meaningful comparisons to be made of its net return on capital. This analysis indicated that a company of Scottish Water's size would charge depreciation levels around 30% lower than Scottish Water. The comparisons of financial strength later in this paper show figures both before and after making a downward adjustment to Scottish Water's depreciation charge. These adjustments are presentational only. The Commission adopted Scottish Water's depreciation and infrastructure renewals charges elsewhere in the Strategic Review.

3.6 Weighted average cost of capital

Scottish Water proposed a weighted average cost of capital of 2.7% real post tax. The three main elements of its proposal were:

- a notional gearing level of 65%,
- a real cost of debt of 2.5% post tax,
- a real cost of equity of 3.1% post tax.

Scottish Water focused on a cash financial ratio (cash flow to debt) in assessing its cost of equity, rather than looking to assess market rates of return that might apply to its circumstances.

In making an assessment, the Commission considered projections of Scottish Water's actual gearing of around 54%, rather than using a notional figure.

The Commission considered recent evidence concerning the commercial cost of debt. In January 2009 NERA published a report[1] for the water industry's trade body, Water UK, in which it claims that the real pre tax cost of debt is between 3.8% and 4.3%. This is higher than the Commission believes is warranted, given recent transactions that have been reported. For example, it was reported in January 2009[2] that Severn Trent Water had successfully raised £400 million through a sterling bond issue at 6% (nominal) for nine years. This would suggest an expected real cost of debt of around 3.5% pre tax.

A real cost of debt of 3.5% has been allowed for. The difference between this allowed for cost and the actual cost faced by Scottish Water should be credited to the Scottish Water reserve account. The allowed for cost of debt means that no special allowance for Scottish Water's embedded debt is necessary. This allowed for cost of debt should improve the chance that, in the event that the Scottish Government is unable to make the necessary level of public expenditure available, the Scottish Futures Trust would be able to make the necessary debt finance available on a commercial basis. There would be no adverse impact on customers as a result.

[1] 'Cost of Capital for PR09 – A Final Report for Water UK', NERA Economic Consulting, January 2009.
[2] 'Utility Week', 20 January 2009, page 7.

A cost of equity of around 3% real post tax has been allowed for, before adjusting for Scottish Water's high depreciation.

Adjusting for Scottish Water's high depreciation, the allowed for cost of equity is around 6% real post tax. NERA's assessment of the cost of equity for water and sewerage companies is 7.4% to 8.2% real post tax, and this is similar to the level allowed by Ofwat in its 2004 price review.

In making its assessment, the Commission considered the likely broad effects of:

- Ministers' decision not to take dividends from Scottish Water;
- Scottish Water's constrained access to finance;
- Scottish Water's low gearing;
- the absence in Scotland of scrutiny of the business by external providers of finance; and
- the separation of retail services to non-household customers.

The Commission considers that these elements broadly balance one another.

Table 3.2 sets out the calculation of the WACC using the assumed cost of debt and of equity. It shows the impact of the adjustment to Scottish Water's depreciation charge, which was made to allow more meaningful comparisons with WACCs elsewhere.

Table 3.2: Proposals on the weighted average cost of capital (WACC) to allow for

Item	Proposal before adjustments for high depreciation	Proposal after adjustments for high depreciation
Gearing	54%	54%
Real pre tax cost of debt	3.5%	3.5%
Real cost of equity (four-year regulatory control period)	3%	6%
Real cost of equity (five-year regulatory control period)	3%	6%
Adjusted real post tax WACC (four-year regulatory control period)	2.7%	4.1%
Adjusted real post tax WACC (five-year regulatory control period)	2.7%	4.1%

Any estimate of the cost of capital and in particular the cost of equity is open to uncertainty. The Commission therefore also considered recent evidence, particularly assessments made by the UK Competition Commission. It also analysed the ex-post return on capital earned by Dŵr Cymru (Welsh Water) which provides water and sewerage services in Wales. Like Scottish Water, it has no shareholders and is run solely for the benefit of customers. It pays an annual dividend to customers, funded from outperformance savings. The assumed WACC is broadly in line with recent ex-post cost of finance for Dŵr Cymru but slightly below the figure suggested to the Commission by Professor Franks in his advice.

3.7 Comparing the financial strength of Scottish Water with the companies in England and Wales

The Scottish Government considers that Scottish Water's financial strength should be appropriate to the governance framework within which it operates. The Commission agrees with this view and believes that its proposed WACC for Scottish Water reflects its governance framework. The proposed WACC is very close to that suggested by Scottish Water. It lies slightly below the level that commentators expect for water and sewerage companies in England, but around the ex-post cost of finance of Dŵr Cymru.

However, it is also important to consider financial strength as measured by cash financial ratios in order to form a more rounded picture. In the last price review, the Commission adopted Ofwat's published financial ratios and its targeted values for this purpose. Ofwat sought advice from the financial markets on financial ratios that should allow companies to obtain finance on favourable terms. Table 3.3 sets out Ofwat's ratios.

Table 3.3: Ofwat's financial ratios[3]

Financial ratio	Targeted value
Cash interest cover	Around 3 times
Adjusted cash interest cover I[4]	Around 1.6 times
Adjusted cash interest cover II[5]	Around 2 times
Funds from operations: debt	Greater than 13%
Retained cash flow: debt	Greater than 7%
Gearing[6]	Less than 65%

The level of Scottish Water's financial strength matters to customers. As noted earlier, Scottish Water's ability to withstand shocks depends on its financial strength. However, customers only benefit fully if financial strength is appropriately balanced. A low level of financial strength would leave a significant risk that charges would have to increase sharply in the event of a shock. A level of financial strength that is set too high can mean that there is less incentive for Scottish Water to manage its normal costs, which could result in underperformance and increased charges. The Commission's view is that a combination of upper quartile performance (as proposed in the Draft Determination) and financial ratios similar to the financially stronger companies is likely to be appropriate and in the interest of customers.

Tables 3.4 to 3.6 compare the proposed level of financial strength for Scottish Water over the next regulatory control period with recent actual levels in England and Wales. Results are shown for three of Ofwat's ratios; cash interest cover, adjusted cash interest cover (capital maintenance charges basis) and retained cash flow to debt.

[3] 'Future water and sewerage charges 2005-10 Final Determinations', Ofwat, 2004, p233.
[4] Funds from operations less capital charges: gross interest.
[5] Funds from operations less capital maintenance expenditure: gross interest.
[6] Net debt: regulatory capital value.

Table 3.4: Comparison of financial strength – cash interest cover

Company	Cash interest cover five-year ratio 2003-04 to 2007-08
Yorkshire Water	4.7
Severn Trent Water	4.6
Thames Water	4.5
United Utilities	3.8
South West Water	3.6
Northumbrian Water	3.3
Wessex Water	3.3
Dŵr Cymru	2.5
Anglian Water	2.4
Southern Water	2.0
Scottish Water 2010-14 review period	3.4
Scottish Water 2010-15 review period	3.4

Table 3.5: Comparison of financial strength – adjusted cash interest cover

Company	Adjusted cash interest cover II (capital maintenance expenditure basis) five-year ratio 2003-04 to 2007-08
Thames Water	2.8
United Utilities	2.6
Severn Trent Water	2.5
Northumbrian Water	2.4
Dŵr Cymru	2.3
Wessex Water	2.1
Yorkshire Water	2.0
Southern Water	1.7
South West Water	1.6
Anglian Water	0.9
Scottish Water 2010-14 review period	2.0
Scottish Water 2010-15 review period	2.0

Table 3.6: Comparison of financial strength – retained cash flow to debt

Company	Retained cash flow:debt five-year ratio 2003-04 to 2007-08
Thames Water	12.1%
United Utilities	10.3%
Severn Trent Water	7.5%
Northumbrian Water	7.4%
Dŵr Cymru	7.4%
Wessex Water	7.1%
Yorkshire Water	5.0%
Southern Water	4.8%
South West Water	4.2%
Anglian Water	3.0%
Scottish Water 2010-14 review period	12.6%
Scottish Water 2010-15 review period	12.4%

The apparently strong results for Scottish Water's retained cash flow to debt in Table 3.6 reflect in part the constraints on borrowing that the Scottish Government has indicated for the next regulatory control period.

3.8 Summary

The Scottish Government considers that Scottish Water's financial strength should be appropriate to the governance framework within which it operates. The Commission agrees with this view and believes that its proposed WACC and level of financial strength for Scottish Water reflect its governance framework.

The proposed WACC is similar to that proposed by Scottish Water, which is broadly in line with recent performance by Dŵr Cymru. The outcome of the Commission's proposal is that projected financial ratios for Scottish Water would be similar to recent ratios among the financially stronger companies.