

**Ofgem  
Transmission Price Control Review 2007-2012: Initial Proposals**

July 2006

Julian Gould – European Fund Manager, Schroders



# What Keeps us Awake at Night? Surprises and uncertainty

Investors seek two things from the regulatory review process:

- A. predictability and transparency
- B. a fair incentive return on capital

Outperformance is not a 'dirty' word:

- the whole point of incentive based regulation is that the most efficient companies can outperform

That enables me as an investor to back the management teams most able to outperform the regulatory contract

# Cost of Capital Summary

**Illogical proposal versus recent distribution review – similar capex burden arguments (£6.7bn bids submitted vs £2.6bn last time)**

**Does not properly incentivise investment: competition for capital, from investors and within companies themselves**

**Channels investor focus in favour of water and distribution instead**

**Investors will choose between:**

— Water 5.1% (up to 5.7% with financeability), Distribution 4.8%, Transmission 4.2%

**I believe the cost of capital should be 4.6%, and for companies to justify investment they must earn in excess of this**

# Cost of Capital

## 'Modelling assumptions' – while the review is a package, investors focus on this

### WACC Calculation (real) - Ofgem - TCPR06 Initial Proposals

	Base Case	High	Low	Debt 10-Year Average / Equity at 7.5%	Debt 5-Year Average / Equity at 6.5%	Electricity Transmission (TCPR00)	Transco (PR01)	Electricity Distribution (DCPR04)	UK Water (PR04)	My Assumptions
Risk-Free Rate	2.30%	2.75%	1.65%	2.40%	2.10%	2.75%	2.75%	2.75%	2.75%	2.41%
Debt Premium	1.10%	1.35%	0.65%	1.10%	1.00%	1.70%	1.90%	1.35%	1.55%	1.30%
Pre-Tax Cost of Debt	3.40%	4.10%	2.30%	3.50%	3.10%	4.45%	4.65%	4.10%	4.30%	3.71%
Post-Tax Cost of Debt	2.38%	2.87%	1.61%	2.45%	2.17%	3.12%	3.26%	2.87%	3.01%	2.60%
Gearing	60.00%	57.50%	60.00%	60.00%	60.00%	60.00%	62.50%	57.50%	55.00%	60.00%
Equity Risk Premium	5.20%	4.75%	5.85%	5.10%	4.40%	3.50%	3.50%	4.75%	4.95%	5.10%
Equity Beta	0.90	1.00	0.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Pre-Tax Cost of Equity	9.97%	10.71%	6.54%	10.71%	9.29%	8.93%	8.93%	10.71%	11.00%	10.73%
Post-Tax Cost of Equity	6.98%	7.50%	4.58%	7.50%	6.50%	6.25%	6.25%	7.50%	7.70%	7.51%
Corporation Tax	30.00%	30.00%	30.00%	30.00%	30.00%	30.00%	30.00%	30.00%	30.00%	30.00%
Pre-Tax WACC	6.0%	6.9%	4.0%	6.4%	5.6%	6.2%	6.3%	6.9%	7.3%	6.5%
Post-Tax WACC	4.2%	4.8%	2.8%	4.5%	3.9%	4.4%	4.4%	4.8%	5.1%	4.6%
Vanilla WACC	4.8%	5.5%	3.2%	5.1%	4.5%	5.2%	5.3%	5.5%	5.8%	5.2%

Historic price determinations

Ofgem provide these 5 WACC scenarios in the initial proposals document

Source: Citigroup Utility Research, Ofgem, and Schroders

# Cost of Capital

## 'Modelling assumptions' cont....

Index Linked 10-Year Gilt Historic Yields  
Yield (%)

-12y	3.91		
-11y	3.77		
-10y	3.71	3.71	
-9y	3.17	3.17	
-8y	2.23	2.23	
-7y	2.08	2.08	
-6y	2.19	2.19	
-5y	2.38	2.38	
-4y	2.09	2.09	
-3y	2.02	2.02	
-2y	1.83	1.83	
-1y	1.51		
Current	1.81		
Average: 10-year	2.32	Ave ex -1yr	2.41
Average: 5-year	1.96		
Average: 10-year as at June 04	2.67	vs	2.75%
			0.08% delta

Source: Citigroup Utility Research, Schroders

# Cost of Capital

## The issues

**CAPM's ivory tower: a tool, no more – avoid too strict an adherence**

**Ke broadly stable over the medium term: yet 7.5% at Distribution review, now only 7%**

**Beta of 1 at all previous T, D, and W reviews: inconsistent to move now to 0.9**

**Rf fallen, but should avoid locking in the trough, and potentially missing an inflection point**

**Average trailing ten year index linked gilt yields, if one excludes last year, is 2.41% (vs 2.32%): same 0.08% delta as per DCPR04**

**=> beta to 1, Rf of 2.41%, and adjust balancing item of ERP from 5.2% to 5.1% = flat 7.5% Ke (as per DCPR04)**

**Debt premium fallen: why and for how long? spread 1.35 to 1.10 since DCPR04 ... ignores potential capex-driven changes in risk profile**

- Careful of fixing companies into the today's 'risk is free' world, propped up by the 'debt bubble' (where pension fund asset liability matching has driven down yields), and constraining financing options
- The environment could change markedly over the coming five years

# 'Financeability'

**An odd concept: necessary if the WACC is set correctly?**

**WASC's received it in 2004 (some in 1999 also): sustainable? Distribution did not receive this (except one)**

**Transmission: companies can issue equity if they choose**

- Ofgem proposes an enhanced return to cover the incremental costs of this (either raising equity, or via debt cost effects of higher gearing)
- Optimally, Ofgem should just get the WACC right at the outset: 'shocks' have a disproportionate effect**

**Depreciation – Cliff edge**

**Consistent with treatment currently employed in Distribution**

- plug the depreciation gap via accelerating depreciation and smooth the benefit (for existing income streams)

# Capex

**Logical philosophy in line with 2001 Transmission review of a baseline capex concept with a revenue driver for projects on top**

**Reasonable and investors are used to dealing with uncertainty of timing of capex:**

- revenues granted if project followed
- question is rather its impact on the companies' risk profile
- cost of finance uncertain, as companies do not know when they must raise funding: so headroom needed in return assumptions

**Back to getting the cost of capital right, with adequate headroom allowing for uncertainty on timing of capex**

- or financeability fall-back as a second line support (i.e. IDoK's for the cost of finance?)

**Also needs added detail on unit costs, and on what target level of reliability is expected from the system:**

- short term reliability ≠ robustness (shocks), and mud sticks (Wimbledon)

# Pensions

Lacks consistency versus the Distribution final determination

Ofgem were not explicit in the past on who should bear the costs associated with this

At Distribution review, 70% recovery of unfunded ERDC's pre 2003 – why not same now?

An issue mainly for National Grid, rather than the Scottish companies

# Conclusion

## Cost of capital is the key 'surprise'

- lacks some consistency versus Distribution review
- does not incentivise investment
- does not take into account the potentially exceptional nature of today's environment

**Other issues (revenue drivers and depreciation tilting) need more discussion and detail, but logic sound**

# Important Information

## Schroders

For professional advisers only. This material should not be relied upon by private customers. Past performance is not a guide to future performance and may not be repeated. The value of investments and the income from them may go down as well as up and investors may not get back the amount originally invested

Exchange rates may cause the value of overseas investments and the income from them to rise or fall

Schroders have expressed their own views and these may change. The data contained in this document has been sourced by Schroders and should be independently verified before further publication or use

Issued in October 2006 by:  
**Schroder Investments Limited**  
31 Gresham Street  
London, EC2V 7QA

Registered no. 2015527 England

Authorised and regulated by the Financial Services Authority

