



Water Industry Commissioner for Scotland

Strategic Review
of Charges 2006-10:

Financing and Debt Funding Project

December 2004

STRICTLY PRIVATE AND CONFIDENTIAL

22 December 2004

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Dear Alan

Financing and Debt Funding in the Scottish Water Industry

We are pleased to attach the results of our research into the relevance of funding arrangements in England and Wales to the Scottish water industry.

The paper endeavours to set out in some detail the current funding structures seen in the private sector and to explain the features of the wide variety of debt instruments employed. It then looks at the relevance of this to Scottish Water.

Whilst the industry in Scotland is different in many ways to that in England and Wales, we do suggest that there are some useful points that can be taken from the experience south of the border since privatisation. These are set out in detail in our conclusions and relate primarily to closer scrutiny of measures of financial stability.

We have enjoyed working on this assignment and will continue to follow developments in Scotland closely.

Yours sincerely

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Important notice

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1. Background

Purpose and aims of study

This study, commissioned by the Water Industry Commissioner for Scotland (“WICS”) as part of the preparatory work for the Strategic Review of Charges 2006-10, investigates the funding structures used by water companies in England and Wales, where the industry was privatised in 1989.

The project, to quote from the WICS’ July Framework Document, seeks to:

- Investigate the arrangements used by companies within the water and sewerage industry in England and Wales and in other utility industries to fund themselves through the acquisition of debt on the private markets;
- Identify the structures and practices adopted by lenders operating in the markets used by utility companies to source debt, as well as the types of debt issued; and
- Appraise the extent to which the private sector practices identified above may be applied to the public sector model employed in the Scottish water industry and the benefits this may bring to the various stakeholders.

ING

ING is one of the world’s largest financial institutions with over 120,000 staff in 60 countries across the globe. It has developed a particular interest in the water sector with a track record reaching back into the 19th century through Barings’ activities across the globe. More recently, it has established relationships with every one of the UK water and sewage companies since privatisation and worked on all aspects of their financing. Through our relationships with water utilities in Continental Europe, including Ondeo, Veolia, Saur, RWE and others, we are also familiar with the models used elsewhere to facilitate private financing.

We have also worked on concession-based (Public Private Partnership) and Build-Operate-Transfer models for water utilities in Argentina, Belgium, Bulgaria, Czech Republic, Estonia, Hungary, Indonesia, South Korea, Netherlands, Philippines, Poland, Scotland, Serbia and Romania including both arranging finance and advising governments where ownership remains in the public sector.

ING is one of the few international banks to retain a presence in Edinburgh as well as London.

2. Debt funding structures used in the UK utilities sector

Existing arrangements in Scotland

Funding

Scottish Water's funding comes almost exclusively from two sources:

- Water Bills (domestic bills being collected along with Council Tax by local authorities on Scottish Water's behalf whilst non-domestic are charged direct)
- Loans

In addition, a very small proportion of expenditure is funded by direct grants from the Scottish Executive on specific national priorities for which it is considered inappropriate to charge water customers.

Apart from a small overdraft facility with a commercial bank, the loans taken out by Scottish Water come directly from the Scottish Executive. In this way, the Executive takes on the role played by the National Loans Fund and the Public Works Loans Board through which funds pass to local authorities and public bodies in the rest of the UK.

The Scottish Executive itself has two sources of funds:

- Direct tax-raising powers (which have not yet been exercised)
- The Block Grant from Westminster

The Block Grant is comparable to the money allocated in the biannual spending round by HM Treasury to various government departments (education, defence, etc) based on spending bids made by the departments.

Whilst for some expenditure, for example on education, the Scottish Executive will pass on the appropriate portion of the Block Grant in the form of a grant, in the case of water it is deemed a loan and as such attracts interest. This interest is essentially the cost of central government borrowing to fund the Block Grant in the first place (i.e. the cost of so-called "gilt-edged securities" or "gilts"). These rates vary over time as the Bank of England sets interest rates to help meet the Government's inflation target. Scottish Water's current borrowing has a weighted average interest cost of 6.34% which is high due to historical rates.

The Scottish Executive lends to Scottish Water on a variety of maturities ranging from 7 days to 25 years. The upper limit is set by HM Treasury. The loans are not forecast in the foreseeable future to be "repaid". They are simply refinanced on maturity with further loans. They are not allowed to be refinanced before maturity if, for example, interest rates change.

The aggregate amount of loans available to Scottish Water is set on a four year basis as part of the Strategic Review of Charges. In 2003/4 the limit was £164.7m of new loans¹. Within this limit, and subject to Scottish Water not running a cash surplus, loans are applied for when required. The limit is essentially the difference between the cost assumed by the Water Industry Commissioner for Scotland (and in due course by the Water Commission for Scotland when that body takes over the Commissioner's duties) required to

¹ Source: Scottish Water Annual Report and Accounts 2003/4

operate, maintain and enhance the water assets and the money which will be raised through bills.

Implications of underperformance

One of the contrasts with the privatised system south of the border relates to the impact of “underperformance”. Examples of underperformance might include:

- When a water company cannot deliver operational efficiencies assumed by the Regulator (in England and Wales these assumptions being informed by the Regulator’s observation of comparator companies’ performance)
- Where a company fails to deliver the capital programme for the cost allowed for in the price set by the Regulator

In the privatised system, the risk of underperformance is taken in the first instance by the shareholders, who may see their dividend cut or “passed” (i.e. cancelled) with consequences for the share price. When there is not underperformance, of course, the benefits of the “equity cushion” in the private sector are paid for by way of dividends to shareholders.

In the Scottish system, there are in effect three options in the case of underperformance:

- Increase in bills (which would be authorised with reluctance for obvious reasons – particularly if it was because of “inefficiency”)
- Increase in borrowing (which in the case of Scottish Water would presumably require the Executive to divert funds from other priority areas)
- Change in scope of capital programme (much of which is effectively mandatory in order to meet European and UK environmental targets)

It is difficult (and beyond the remit of this report) to demonstrate conclusively that a privatised model creates greater incentive to perform than a public ownership model. However, scrutiny in the privatised model comes not just from the public and institutional investors but from a range of professional sources including bank lenders, rating agencies and research analysts, all of whom strive for objective and fact-driven analysis. The scrutiny from these analysts and shareholders puts considerable pressure on management to perform. State-owned companies of course also have their management under scrutiny from media and politicians, although it might be argued that, since this is not their sole role, this scrutiny is susceptible to being less “evidence-based”.

Individual performance incentives (share options, bonuses, profit share schemes, etc) can also act as a valuable carrot and stick for management. The growing backlash against severance payments for executives departing poorly performing companies is indicative of the accountability demanded by the private sector. In theory, the ownership model of the business has no bearing on the scope for implementing management incentive schemes but in practice public ownership does appear to limit this flexibility.

Financing structures in England and Wales

Ownership of UK Water Companies

The water industry in England and Wales comprises ten Water & Sewage Companies (“WaSCS”) plus 13 Water-only Companies (“WoCs”) and was privatised in 1989. Since then there has been a number of developments leading to the following generic ownership structures:

Companies quoted on the London Stock Exchange

Initially after privatisation, all Water and Sewage companies were listed. As such, their management was subject to unprecedented scrutiny and the public had unprecedented visibility. The major listed companies now comprise the following:

- awg (which owns Anglian Water Services Ltd a highly leveraged regulated entity)
- Northumbrian – which was owned by a French company for a while but re-listed in 2003
- Severn Trent – which also owns the waste company Biffa
- Pennon – which owns South West water and also the waste company Viridor
- United Utilities – which also owns an electricity distribution company and is part of a consortium acquiring a gas distribution network
- Kelda - the owner of Yorkshire Water which was the first company to try to gear up significantly, in their case using a mutualisation structure which was rejected by the regulator

Subsidiaries of foreign companies

A number of investors have been attracted to the predictable returns provided by UK water companies. The primary foreign-owned companies currently comprise:

- Thames – owned by the German utility company RWE
- Wessex – owned by the Malaysian power company YTL
- Cambridge Water was bought by CKI, a Hong Kong utility investment company.

Company Limited by Guarantee

Dwr Cymru, the water company for Wales, is owned by Glas Cymru which is a Company Limited by Guarantee. Having no shareholders, it is run by nominated Members on behalf of the people of Wales and pays out customer rebates rather than dividends. The water company was the first successful highly leveraged water company being financed entirely by debt and cash reserves. Dwr Cymru outsources its entire operating activity by competitive tender.

Other

Several companies have attracted the interest of private equity houses. These include Southern Water (a highly leveraged company which was previously owned by Scottish Power) and South East Water which has been acquired by the Australian infrastructure investor, Macquarie.

The Network Rail example

Network Rail is the successor body to Railtrack plc, the privatised rail infrastructure owner and operator. Network Rail is, like Glas Cymru, a Company Limited by Guarantee. It has no shareholders, but instead is accountable to members (essentially the public and rail users), who do not receive dividends. All of Network Rail's profits are reinvested into the rail infrastructure.

At 31 March 2004, the company had total assets of approximately £19 billion and net debt of approximately £13 billion, representing gearing of 68%. This debt has been raised in the bank and bond markets, and is rated equivalent to HM Government (AAA). The company is therefore able to fund itself at the lowest possible cost although the debt does not appear as a government borrowing obligation, i.e. the debt is in effect "off-balance sheet" for the Government.

Network Rail's credit rating is based on credit enhancement from the Strategic Rail Authority ("SRA") in the form of agreements to meet contractual obligations in a timely manner under all circumstances. The SRA is a legally independent public body responsible for setting UK rail strategy. It has no taxing powers and no guarantee from HM Government but its credit standing is deemed, by the major rating agencies, to be equivalent to the UK sovereign rating. This is based on the Government (Department of Transport) issuing comfort letters to the SRA indicating that it would support its obligations and, in effect, would not allow the SRA and in turn Network Rail to default on its debt. However, the comfort letters do not constitute legally binding obligations. The "off-balance sheet" structure has been subject to some criticism from the financial press and other market observers.

Regulatory regime

The UK regulatory regime has evolved since 1989 into one considered robust and effective by most industry observers including the financial community. Subject to close regulation by the Environment Agency, The Drinking Water Inspectorate (which monitors an ever-higher quality standard) and OFWAT (which sets prices), the industry is characterised by monopoly positions in local markets.

In order to prevent abnormal profits being earned by monopoly suppliers of an essential product, the economic regulator uses a 5-yearly price-setting regime to simulate competition by encouraging companies to achieve market-leading standards of efficiency. Early in the process, water companies prepare Draft and then Final Business Plans in which they set out their views on the amounts they must spend to maintain and enhance services and implement the capital programmes required to meet, for example, environmental targets. OFWAT's initial views on prices for the period 2005-10 were published on 5 August 2004 in the 'Draft Determinations' (available on www.ofwat.gov.uk).

Following extensive consultation, OFWAT published its Final Determinations on 2 December 2004. Following this, companies have a two month window during which they can appeal, if they wish, to the UK Competition Commission which can make a binding judgement. For the avoidance of doubt, OFWAT makes determinations which can be (and have been) appealed – in other words they are decisions, not advice to Ministers.

In summary, the methodology is to set an initial level of prices at the start of each 5 year period followed by a series of approved maximum price increases measured as percentage points (known as "K") over or under inflation. As in

Scotland, both maintenance of existing assets and enhancement expenditure required by environmental legislation drives capital expenditure. OFWAT forecasts the cost of the required outputs for each company for the next five-year period. OFWAT also compares the operating efficiency of the various companies (in order to encourage, in the absence of competition, the less efficient to emulate the more) and makes an allowance for operating expenditure. Next, an allowance for a reasonable return to capital - both debt and equity – is added.

Taking into account these factors, the Regulator sets the prices that can be charged in the five year period. The impact of proposed price changes on financial ratios is then assessed with a view to ensuring that companies continue to attract solid investment grade ratings. The importance of this is discussed later but the “financeability” aspects of the price setting have become increasingly important.

There can be a significant change between the initial regulatory reaction to companies’ business plans and the final determination. The table below shows the extent of this change in the current review round for the larger companies. The change from Draft price limits to Final ones is accounted for primarily by additional capital expenditure allowed for after consultation with customers and Parliament. Companies also put considerable effort into negotiating matters of detail with OFWAT, for example on the baseline comparators used to establish efficiency targets.

OFWAT Final Determination

2 December 2004 – summary of price limits

WASC	Average OFWAT Final Price Limit	Average OFWAT Draft Price Limit	Average Final Business Plan Price Limit
Anglian	2.4	1.5	4.6
Dwr Cymru	5.4	4.5	5.9
Northumbrian	3.0	1.5	5.0
Severn Trent	4.5	3.5	5.6
South West	6.9	5.6	8.7
Southern	5.6	4.0	7.7
Thames	4.1	3.0	6.7
United Utilities	4.5	3.5	7.8
Wessex	5.2	4.2	6.5
Yorkshire	3.9	3.3	4.3
WaSC Average (Weighted)	4.3	3.2	6.3

Setting the "Reasonable Rate of Return"

The rate of return is set as a percentage return on regulatory assets. The Regulatory Asset Base (“RAB”), also referred to as the Regulatory Asset Value (“RAV”), is a key figure. It is basically calculated by adding cumulative net capital expenditure to the value given by the market to the company at privatisation. This value was calculated by looking at the average “market capitalisation” (share price multiplied by the number of shares) over the first few months after privatisation.

The "reasonable return" figure is reached by calculating a post-tax cost of debt and a cost of equity and weighting these depending on the assumed "normal" proportion of each for a water company. This "weighted average cost of capital" or WACC was, in 2000-5, 4.75% in real terms, the proposal for 2005-10 is set out in the table below.

Table 1: Components of WACC

	post-tax
Assumed capital structure	55% debt/45% equity
Assumed cost of debt	3.1%
Assumed cost of equity	7.7%
WACC	5.1%
Smaller Company Premium	0.2-0.7%

Source: Final Determinations – OFWAT 2 Dec 04

The smaller company premium recognises the higher return demanded by investors in the smallest water companies.

Debt in the English and Welsh companies

Since debt and equity have different risk profiles it is normal to assume that the cost of debt is lower than the cost of equity. Although water companies were privatised "debt-free", it follows that the assumption made by the Regulator about "gearing" (i.e. the proportion of debt to RAV) encouraged water companies to take on debt. The Regulator's "reasonable rate of return" was higher than the cost of debt and furthermore the long term and low growth nature of the industry makes it an attractive home for long term debt (for example bonds – see 'Sources of Debt Funding') compared to equity.

To summarise, the size of the capital programme required and the regulatory regime made it inevitable that debt would be a major source of funding for water companies with implications for the financial ratios required.

Levels of gearing

Banks are interested in the level of gearing for two reasons:

- As a measure of "loan to value" it gives some idea as to the proportion of the value of the borrower in relation to the banks' exposure. Although lenders to a water company do not generally have security over the assets, the regulated asset base is still taken as an indication of the price that might be paid by a purchaser of the company
- As a proxy for interest cover, being the ability of the borrower's cash flows to service its debt service costs

The ratings agencies take a similar interest in ratios like gearing and interest cover and this has led to OFWAT incorporating an analysis of ratios into its price determinations.

Theoretical considerations - Modigliani and Miller

The appropriate level of gearing is subject to debate since there is an argument that, as the level of debt increases, the risks to equity increase. In return for this, equity holders may require a higher return which cancels out (perhaps entirely) any benefit from increasing the proportion of "cheaper" debt.

The concept that capital structure makes no difference, *ceteris paribus*, to the value of a company was initially propounded in an article by F. Modigliani and M. Miller entitled "The Cost of Capital, Corporation Finance and the Theory of Investment" in *American Economic Review* (June 1958). The general idea is still one influencing many water companies' thinking about gearing levels although empirical evidence since that date is considered by many to refute the basic premise of this article. Ultimately if finance providers themselves do not support the theory, then a company must adapt its capital structure accordingly, i.e. by increasing gearing.

Practical outcomes – actual levels of gearing

A number of companies have pushed the "gearing" argument of cheap debt to an extreme and are known as highly leveraged water companies. They view this as a move to seek financial efficiency given that much operational efficiency has been achieved already. In order to attract the very large sums of bond finance required to become a highly leveraged company yet maintain a good credit rating there is a need for careful structuring with an enhanced level of control for lenders. The pioneering transaction for a geared-up water company was in 2001 for Dwr Cymru, the water company for Wales.

The average gearing of privatised English and Welsh water companies is now 59% (51% excluding the highly leveraged companies – see below).

Table 2: WaSC gearing levels in 2004 (figures in £ millions)

Name	RAV	Net debt	Gross debt	Net debt/RAV
Southern Water Services	2,276	2,048	2,239	90%
Anglian Water	4,252	3,496	3,923	82%
Wessex Water	1,529	1,073	1,074	70%
Dwr Cymru (Glas)	2,594	1,799	2,407	69%
RWE Thames Water	4,899	2,904	3,141	59%
Northumbrian Water ⁽¹⁾	2,318	1,378	1,383	59%
Severn Trent	4,693	2,749	2,866	59%
United Utilities	6,172	3,438	3,451	56%
South West Water	1,751	956	1,214	55%
Yorkshire Water	3,147	1,251	1,251	40%
Sector Total	33,335	20,517	22,374	

Notes:

Figs are £m and based on latest (2003/4) audited accounts

(1) Does not include values for Essex and Suffolk Water

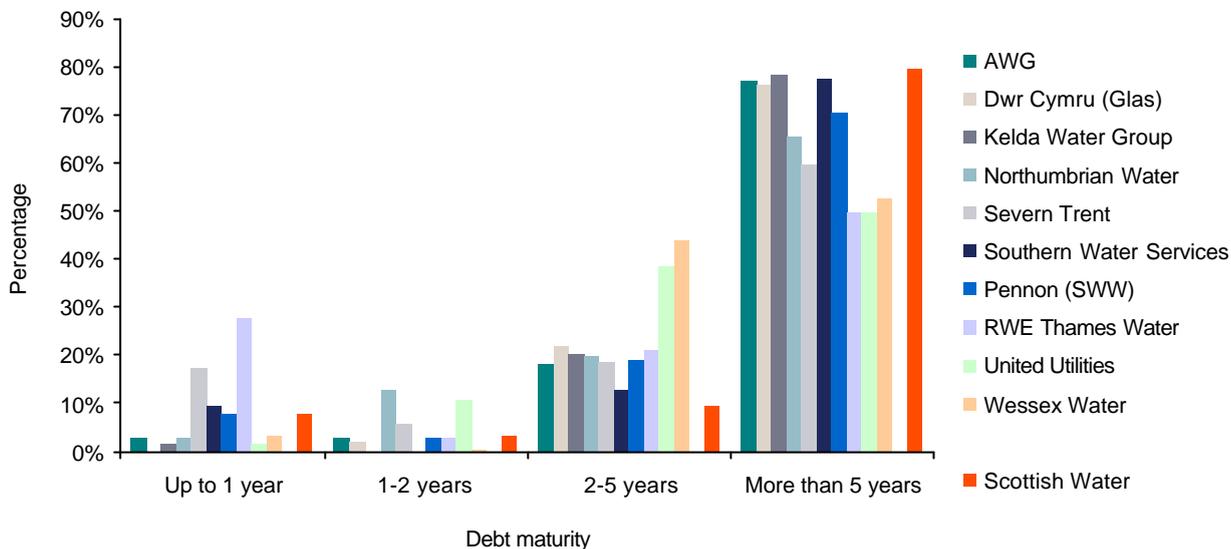
Maturity analysis

Companies often try to have a spread of maturities for their debt. Not only does this reflect diversification of their funding base amongst investors offering different terms of debt but it also helps mitigate "refinancing risk". This is where a large proportion of debt falls due at the same time.

As a principle, it is generally considered appropriate that long term assets are financed with long term liabilities: the water sector therefore sees a high

proportion of long term debt. The chart below shows the average maturity profile for the large UK water companies alongside that for Scottish Water.

Figure 1: Debt maturity profile (2004)



Source: annual reports, consolidated debt

3. Sources of debt funding

Introduction

A UK corporate borrower has access to a variety of debt instruments as wide as any available in the world with the possible exception of the United States. Although the varieties which have been developed are numerous, there are many variations on themes.

The most basic differentiation is between bank debt and the capital markets:

- A bank takes in deposits and then lends to individuals and corporations, normally as part of a relationship and often on the assumption that its repayment will come either from the cashflows of the borrower or from refinancing with another loan. The relationship between bank and borrower often extends beyond lending, indeed, many banks will consider lending to be an entry point for the marketing of other, more value-added, services
- The capital markets, by contrast, enable investors whose prime activity might be something else altogether (for example insurance companies and pension funds) to invest in securities issued by borrowers with whom they have no direct contact and on the assumption that the investor can, at any time and subject to market prices, sell his investment to another investor. Such securities are therefore often listed on a Stock Exchange

Factors influencing choice of debt instrument

A borrower will not just look at the cost of borrowing but will also take the following into account:

- Nature of price – some debt products attract a higher fee at the start whilst others may be more expensive on an ongoing basis. The borrower may have a preference for fixed or floating rate payments over time
- Amount – an element of fixed costs (e.g. legal fees) on some products may make them uneconomic for small amounts. On the other hand, some markets are better placed than others to provide very large sums at competitive prices
- Maturity – as described later in this section, different products can offer different maturities
- Investor base – many borrowers perceive value in diversification of their investor base. Should one market become unattractive to a borrower, it will be easier to tap another if the borrower has already established a presence there
- Currency – as a general rule, borrowers will look to match the currency of their borrowing with that of their spending and income
- Covenants – different markets demand different levels of control or reporting which may or may not be balanced by price advantages
- Complexity – there is a cost to complex structures in terms of demands on management time

- Tax implications – for tax paying borrowers, the tax treatment of various products, particularly leasing, will also be taken into account

Bank debt

Uncommitted lines

Uncommitted facilities are normally short term and attract cheaper pricing since, unlike committed lines, the lending bank is not obliged to lend on request. Companies often have uncommitted lines for seasonal needs or for very short term (e.g. overnight) funding needs.

Acceptance Credit lines, a very old concept becoming less common due to developments in regulation, are always uncommitted. An invoice relating to a borrower's trade (called a Bill of Exchange) is "accepted" or guaranteed by a bank (traditionally one of the sixteen Accepting Houses) and can then be "discounted" or bought for a percentage of its face value. Since the Bank of England restricts the number of bills any one bank can accept, a bank cannot commit to "lend" by way of bills.

Committed lines

Committed lending is most commonly for terms of 3 to 5 years although up to 7 years is also seen. For this period, the bank is obliged to lend at any time on the terms agreed. Lending is, however, subject to satisfaction of conditions precedent (e.g. provision of constitutional documents and Board resolutions demonstrating that the borrower is authorised to borrow) and subject to there being no Events of Default. Events of Default are likely to include breach of financial ratios intended to act as an early warning to the bank if the borrower's financial condition is deteriorating.

A commitment fee is payable on the undrawn portion of the facility. This is usually a fraction (c.40-50%) of the margin which is charged on drawings. The margin is normally set as a fraction over LIBOR (the London Inter-Bank Offer Rate) which is the rate at which the bank itself borrows money to fund its activities.

Committed bank facilities are often used as back up lines for capital markets issuance, particularly commercial paper (described later in this section). This can be a requirement of ratings agencies.

Bilateral and syndicated loans

Bank lending may be further categorised as bilateral or syndicated. A bilateral facility is one arranged between a borrower and a single bank whilst a syndicate is a group of banks arranged by one or more lead banks to join together in a facility.

The syndicated loan market is well established and very large with syndicates established for anything from £50m to £16.5bn. Over £80.0bn was raised for UK corporates in 2003, the largest single facility being £6.0bn.

Given the depth of this market, syndicated loans are often used to raise large sums of money at one time. A lead bank may, along with other "Mandated Lead Arrangers", offer to "underwrite" the loan for a fee. This is common where absolute certainty of funding by a specific date is required, for example when making an acquisition. The lead banks will then sell down (or "syndicate") participations in the loan to other banks. Alternatively, the leads may be mandated to sell the loan on a "best efforts" basis, whereby they will target a facility size but will not guarantee it.

The leads will, in consultation with the borrower, be responsible for preparing and presenting information to other banks. There is hence, for a fee, a reduction in the workload for the company when setting up the loan and the borrower benefits from the lead banks' knowledge of, and relationship with, other lending banks in the market. Since all banks are on the same terms and conditions, when the borrower wishes to make a drawing he simply calls a single bank (the "Agent") who then splits the request between the other participants.

For smaller amounts, or where the borrower wants to establish a more direct relationship with each and every bank, it is common to see a series of bilateral facilities. Borrowers will normally try to establish these on common conditions. In the UK water market, it is our estimate that about half the large water companies have syndicated lines and the remainder a series of bilaterals.

Term debt and revolvers

Much bank lending to UK water companies is in the form of revolving credit facilities. These are committed facilities where the borrower can draw down and repay amounts during the course of the facility (usually 3-5 years). The unutilised part of the facility will attract a "commitment fee" since there is a cost to the bank of providing the facility even if it is undrawn. The drawn part of the facility will attract a margin, usually quoted as a percentage spread over LIBOR (the London Inter-Bank Offer Rate) which is the rate at which the bank itself borrows from other banks.

A term loan, in contrast, is normally drawn in one tranche at the start of the facility and either repaid in one go at the end (a "bullet") or in stages over the life of the facility ("amortisation").

364-day lines

When banks lend money, they have to satisfy their Regulators by setting aside a certain percentage of capital in order that depositors are protected. The regulations governing this aspect of banking are currently changing but in the past there was a clear differentiation made between loans over and under a year in duration. This led to a certain popularity for facilities with a life of 364 days which, because of the lower capital requirement, could be offered at cheaper pricing. As the way banks are required to measure risk develops, this pricing differential has diminished.

Senior and junior debt

Bank debt in the UK water sector is usually "senior", that is it ranks as highly as any other debt in the event of liquidation and no other creditor has a superior claim on the borrower's assets. In certain circumstances, normally in the context of the structure of a highly leveraged company, some banks are prepared to make loans for a higher margin in a "junior" or "subordinated" position.

It would be unusual for a senior lender to a UK water company to have any security. In fact, legal restrictions make it impossible for a water company to charge its core assets.

Capital markets

The term capital markets covers a wide range of debt products which are generally characterised by liquidity (i.e. lenders frequently and freely buying and selling their "loans") and a wide range of investors whose relationship with the borrower is much more remote than that of a bank.

Bonds may have fixed or floating rates of interest. They rarely have security. As bond investors are unlikely to have an ongoing direct relationship with the borrower they rely more than banks on publicly disclosed information as well as being heavily reliant on ratings assigned by the ratings agencies. Bond investors are also contemplating longer maturities so their information requirement is more stringent, although they normally have a more ready secondary market for their exposure than a bank. Bid and offer prices for bonds are quoted continuously in the capital markets.

The liquidity of a bond means that pricing will usually be lower than on a bank loan, although front end costs can often be substantial.

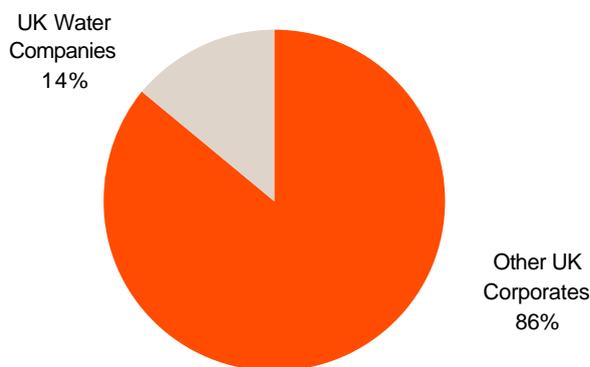
Sterling bonds

As most water company expenditure and income is in Sterling, the Sterling bond market is an obvious starting point in the capital markets. Investment is dominated by relatively few insurance companies (e.g. the Prudential). Almost 90% of Sterling non-government bond issuance originates from financial institutions, with a large part of this coming from supra-nationals such as the EIB, IBRD, and KfW. Bond issues are generally listed on a stock exchange.

Issues are typically sized £100m to £300m with maturities ranging up to 30 years and may be offered publicly or “placed” with a few institutions. A public issue requires an extensive information memorandum to be published.

Figure 2: UK Corporate Sterling Denominated Bond Issuance – 2003

Total UK Corporate Issuance: £16.3bn



Source: Bondware

Eurobonds

The Eurobond investor base reaches across Europe and Asia, enabling the issuer to diversify its funding base into an extremely deep market. In 2003, the international bond market issued US\$804bn equivalent in Euros indicating the depth of this market, versus US\$93bn issued in Sterling. There is currently a very strong appetite for the utilities sector as witnessed in May 2004 when ING launched the EUR1bn Eurobond for the owner and operator of the Belgian electricity transmission grid, Elia. This issue was more than 4 times oversubscribed.

Eurobond investors tend to prefer minimum amounts of EUR500m (although smaller issues can be raised) and generally require a rating, however Eurobonds typically do not require any financial covenants. Eurobonds are

normally 5-10 years in duration although long tenors of up to 30 years are available. ING, for example, led a 30 year issue for the Republic of Italy in 2004 which raised EUR4bn.

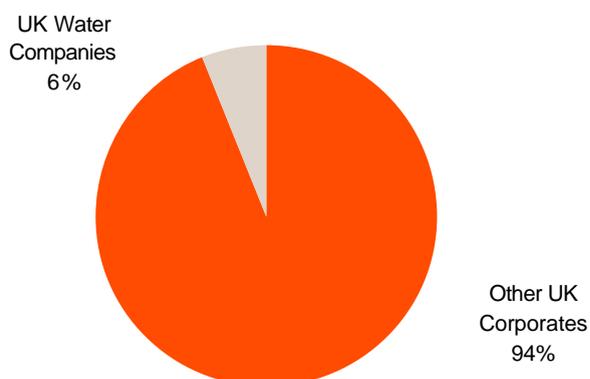
European medium term note ('EMTN') programme

Regular issuers of bonds often set up an EMTN programme. This essentially sets out in advance the main terms and conditions on which bonds may be issued along with enough information for investors to make a credit decision. The prospectus for the programme is updated annually and normally names a set of "dealers" who are banks which are expected to provide a secondary market in bonds issued under the programme thus ensuring liquidity.

An EMTN programme hence increases flexibility as it can enable financing over a period of time in any currency, for a variety of tenors and sizes, as specified in the programme, thus reducing execution risk and optimising market timing of new issues.

Figure 3: UK Corporate Eurobond Issuance (excluding £ bonds) – 2003

Total UK Corporate Issuance: £12.4bn



Source: Bondware

Credit wrapping

For very large debt requirements, for example for the highly leveraged companies, it is common to see "tranching" of the debt in order to access a variety of investors who have interests in, for example, various maturities, fixed/floating, different currencies, etc. There is often a "wrapped" tranche which is one where the bonds are effectively guaranteed by a monoline insurance company like FSA or MBIA. These AAA-rated insurance companies lend their support in return for a fee and the bonds themselves are then rated AAA (with subsequently lower pricing).

US Private Placements ('USPP')

These tailor-made long-term debt financings are placed with a group of US life insurance companies thus diversifying financing sources beyond Europe. Generally, USPPs are not rated and are never listed. Although USPP investors look to participate alongside senior debt, they are customised in terms of tenor, currency and covenants for each issuer, based on the issuer's specific objectives and creditworthiness thus providing a greater level of flexibility than a public bond.

With 'generationally' low underlying interest rates and an excess of demand for paper, very attractive pricing is currently available in the US often approaching public debt levels which would normally be expected to be cheaper because of liquidity. In 2003 alone, 72 European companies raised over US\$21.3bn from private placements (over 50% of new issues by volume). The largest USPP to date was in 2003 for the publicly-owned Irish Electricity Supply Board raising US\$1.04bn.

Index-linked

For companies whose income is linked to inflation, there is a natural advantage in index-linked debt. The market for index-linked bonds is, however, substantially smaller than the fixed rate market although the number of issues has risen slightly over the past few years.

There are around 75 index-linked bonds in issue currently in the UK (not including Government stock). Recent bond issuance is set out below showing that annual issuance in 2003 was around £1.8bn. Issuers are almost exclusively rated A2 or above, although there are a small number of bonds in issuance which have an issue rating of Baa1.

Table 3: Index-linked debt issued by UK Corporates

Year	Issuance (£m)
2000	993
2001	1,006
2002	2,825
2003	1,794

Source: Bloomberg

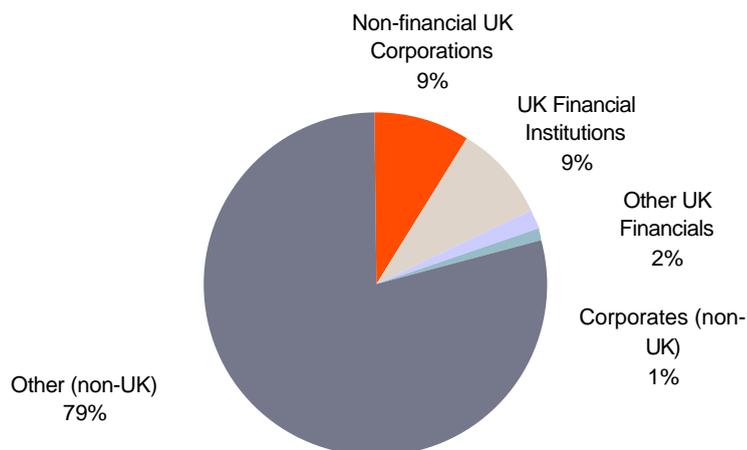
There are about half a dozen "price-making" investors in the UK index linked market. We would not consider these to be particularly ratings sensitive as they are normally "buy and hold" investors who make their own independent analysis of the credit of these long (15y +) dated instruments.

Commercial Paper

Commercial Paper ("CP") is a form of short term funding for large corporations with investment grade credit ratings. CP maturities typically range up to three months with the maximum maturity of a year. CP is usually non-interest bearing and therefore issued at a discount to face value although interest bearing paper can be issued for the longer maturities. Commercial Paper is issued pursuant to the terms of a programme; corporates can establish programmes in a number of markets including the Sterling (UK), Euro (Europe) and US. Several UK water companies maintain a Commercial Paper Programme in order to allow rapid access short term funding sources.

Money market funds are key purchasers of CP given the flexibility and safety that it offers given it is issued only by well-rated entities and backed by bank lines of credit. At the close of 2003, £36.6bn of Sterling Commercial Paper was outstanding in the UK and £282.7bn was outstanding in the Euro CP market. The CP market is a deep and liquid market given the short term, good credit quality characteristics of the paper.

Figure 4: Sterling Commercial Paper outstanding at 2003 close



Source: Bank of England

Other forms of financing

BOTs and concessions

The UK Private Finance Initiative, launched by HM Government in the early 1990s, is based on the concessioning concept. The commercial structures applied use a range of acronyms including BOT (Build-Operate-Transfer), DBFO (Design-Build-Finance-Operate) and BOO (Build-Own-Operate). These all have a common theme; a long term contract (typically anywhere from 20 to 40 years) between a private and public sector party where the former provides a specific asset for use by the latter. At the end of this period, the asset reverts back to public ownership (or the concession can be renewed or re-tendered). The Government has more recently adopted the term Public Private Partnership (“PPP”) to refer to the concessioning concept, although the term PPP has no strict definition and is often used for any form of contract between the public and private sector.

Concessions have not been used in the water sector in England and Wales for the simple reason that the utility industries are wholly privatised. In Scotland, however, a series of concessions were awarded by Scottish Water’s predecessors.

A concession contract is a complex legal document which sets out the rights and obligations of each party over the entire contract term. It is normally a highly prescriptive contract since every conceivable scenario, its risk implications and financial impact needs to be identified and dealt with by parties involved, particularly the debt providers. For this reason, it is also relatively inflexible.

Concessioning can achieve the following:

- It imposes a greater discipline on the public sector party to define clearly from the outset the nature of the service required. Clearly this can be good or bad, albeit the cause of major capital projects running significantly over budget is frequently poor initial planning and late changes to specification.

- Studies suggest that the use of concessions in the UK has virtually eliminated cost overrun risks for the public sector. A publication by HM Treasury (Meeting the Investment Challenge', July 2003) cites research into 61 PFI projects. Of these, 89% delivered on time or early and 100% delivered within budget.
- The very prescriptive contractual structure provides a good medium for raising long term senior debt finance, the object of which is simply to spread the cost for the public sector over a longer period (in theory aligning the asset life with the payments for use of the asset). The involvement of private sector financiers also brings discipline to the process as they undertake independent due diligence to ensure, inter alia, that contract costs are reasonable and that the private party is fully capable of performing its contractual obligations.
- It aligns the private sector's profit motive with the project (i.e. the private sector is responsible for both initial build and long term operation) meaning that the public sector can expect to receive a service of a more consistent quality for the contract term. This alignment, and the long term responsibility imposed on the private party, also encourages innovation in design, build and operation. However, as the first PFI concessions were awarded only in the mid 1990s, and relatively few are beyond the early years of operation, these theories surrounding the long term performance have yet to be fully tested.

Concessions, because of the need for a very prescriptive contractual structure, tend to work more effectively for single assets, or groups of assets with clearly defined performance parameters and operational boundaries (such as a wastewater treatment plant). In Scotland, all the concessions have been for discrete waste treatment facilities (with some ancillary infrastructure).

That said, there are many examples of concessioning of water utility businesses serving major cities or other urban conurbations. Over the last 10 years, the water and wastewater utilities serving Buenos Aires (Argentina), Bucharest (Romania), Budapest (Hungary), Jakarta (Indonesia), Manila (Philippines), Prague (Czech R.) Sofia (Bulgaria) and Tallinn (Estonia) have been subject to concessioning in one form or another, where a private sector party has taken full management and operational responsibility of the existing utility business under a long term contract.

While an analysis of these structures is outside the scope of this report, ING has been involved as an adviser or financier in all of the concessions noted above and we are able to offer some observations. In our experience, concessioning has generally led to significant efficiency improvements (although the examples above are predominantly in developing markets where the utilities, in efficiency terms, were starting from a low base). In many cases there have been long-running disputes surrounding the concessionaire's ability to meet performance targets and entitlement to tariff increases (the two things having an element of mutual exclusivity). In many cases, the concessionaire has needed significant tariff increases in order to recoup capital investments within its fixed concession term. This raises the wider issue about whether a fixed life concession is a logical structure for a business characterised by very long term capital planning.

The success or otherwise of concessioning a water utility business will depend on the particular circumstances. Much of the popularity has been due to the fact that a concession represents a half-way house between privatisation and

state control. In most structures, the concessionaire does not have ownership of assets but merely a “right to use” for the concession term. With the limited-life nature of a concession, debt providers usually lend on a “project finance” basis (discussed below), meaning that they impose much greater scrutiny before committing to lend and place much more onerous ongoing restrictions on the borrower (the concessionaire).

Off balance sheet models

Project financing

This financing technique was developed originally in the natural resources sector in the late 1970s and early 1980s. There is no precise definition of project finance but it is normally associated with financing of greenfield developments on a stand-alone basis. These can include toll roads, power plants, telecom networks, water treatment facilities, ports, airports, etc. Its use has been extended across a range of sectors and it is now most commonly applied in the UK PPP market.

In essence, project finance can be defined as long term loans from banks and/or institutional investors for the construction and operation of assets. The key requirement for lenders is that the asset has a stable and predictable revenue stream covering (and preferably exceeding) the term of the loan. The finance is on a stand-alone basis with no (or very limited) recourse to any other party. In the UK PPP market, this revenue stream is either from central government (via the various departments promoting PPP) or a Local Authority and given the credit quality, lenders are generally willing to lend for periods of up to 30 – 35 years and on credit margins of less than 1 per cent per annum in some cases. The underlying quality of the revenue streams also enables very high leverage and in many PPP projects the initial capital cost is more than 90% project finance debt funded, with a small cushion of equity constituting 10% or less of the total capital.

The highly leveraged and stand-alone nature of project financing demands very complex contractual structures with strict covenants including detailed interest cover and cash flow measures, more extensive reporting requirements, limitations on activity (essentially precluding any diversification) and expenditure (anything not included in an approved budget) and additional provisioning/reserve accounts for unforeseen events.

The project finance market is very large, with all the major UK, European, US, Japanese and many other banks active as either lenders in their own right or structuring and underwriting loans which they distribute as bond issues in the institutional (pension fund and insurance companies) market. While precise figures are not available, the leading project finance industry publications, such as Project Finance International, estimate that some £6bn of project finance debt was raised in the UK in 2003. Some £4.4m of c.25 year, project finance debt was raised in 2002/3 for the two London Underground PPP projects alone, illustrating the depth of this specialised market.

Project finance has not been used in the water sector in England and Wales as the utilities are privatised and their borrowing is done on a corporate basis. In Scotland, the concessions managed by Scottish Water are all project financed. The total quantum of project finance debt and equity raised for these projects was some £600m.

As described earlier, several WaSCs and a number of WOCs have increased their borrowings to high percentages of their RAV. To achieve these levels of

gearing, these “highly leveraged” utilities have adopted what are, in effect, project finance covenants including interest cover and cash flow measures, limitations on activity (essentially precluding any diversification outside the core regulated activity) and additional cash reserves.

Project finance is generally not economic in amounts of less than £40m-£50m due to the up-front legal, financial and other due diligence costs involved in structuring and documenting the loans. However, one of its chief advantages is the discipline through both the extensive due diligence conducted by lenders into all facets of the project (legal, construction, operation, revenues, etc) and the tight day to day control exercised by lenders, including detailed reporting and requirements for the borrower to maintain reserve accounts for various contingencies. In certain cases these advantages can justify the additional costs.

If Scottish Water was to borrow in the financial markets, it would likely do so on a corporate basis (in the same manner as the UK water companies) using its creditworthiness to attract the finest pricing and terms. However, two theoretical possibilities for project finance exist:

- It could be utilised in combination with some form of concession structure, for part or all of the business.
- Scottish Water could adopt a highly leveraged structured similar to some of the English water companies.

Leasing

Leasing is a form of finance which takes advantage of tax deductions (known as “capital allowances”) and was introduced by Government to encourage investment. For tax purposes, a leasing company is considered to own the asset being financed and can hence set against its tax bill for a period a proportion of the value of the asset. Consequently, a leasing company can offer cheaper funding. In simple terms, it is as if the asset is owned by the leasing company and rented to the water company. Leases are often for long terms (up to 25 years).

Naturally if the borrower has its own tax liabilities then it may wish to set the allowances against them. Since many water companies are not tax payers, leasing is an attractive form of finance. Over £3bn of finance leases are in place for UK WaSCs. The law relating to water companies has changed such that many will become tax payers from April 2005 which will have an impact on the attractiveness of this product. In fact, there is a move to change to a system more common in the rest of Europe whereby capital allowances can only be utilised by the borrower.

European Investment Bank

The European Investment Bank (“EIB”) was set up in 1958 by the Treaty of Rome. Its mission is to finance certain types of investment project which support EU aims such as the promotion of European integration, economic and social cohesion, etc.

It is financed solely through borrowing on the financial markets and by subscriptions by member states who are the bank's shareholders. This shareholding means the EIB is rated AAA which enables it to raise money cheaply and hence make very well priced loans – there are very few commercial banks with this rating. Projects must meet a number of criteria including attracting other sources of funding.

Nearly 90% of the EIB's activities take place within the European Union with a significant proportion of the funding going to the newest member states.

The EIB has been a major source of well-priced funding for the UK water industry. Since privatisation in November 1989, over EUR6.7bn has been lent to UK water companies by the EIB.

Summary

The primary differences between the main generic classes of debt are summarised in the following table:

Table 4: Comparison of Debt Products

	Bank	Eurobond	Project Finance
Amount	£25m (bilateral) to £1bn (syndicated)	>EUR250m (single issuance)	£40m-£3bn
Typical Tenor	3- 5 years	5-30 years	10-35 years
Covenants	yes	none	yes
Investor base	UK banks and London branches of international banks	UK, Europe, Asia	International banks
Documentation	Based on standards but customised	Standardised	Highly Customised
Repayment schedule	Bullet/amortising	Bullet	Amortising

4. Features of debt

In this chapter we consider various aspects of the private debt markets which may be relevant for Scottish Water.

Financial Sustainability

Lenders to the water sector in England and Wales, like to any other sector, are concerned with the financial stability of companies on whom they take a risk. Financial stability, in this context, means the ability of the company to withstand unexpected shocks without impacting ability to service debt. Lenders will want to monitor the performance of the company closely through, for example, financial ratios in order that they have an early warning of any potential difficulties.

OFWAT defines an “efficiently financed company” as below:

“..one that ensures that it has sufficient flexibility to respond to changing market conditions.”

Other stakeholders also have an interest in financial stability, for example shareholders will expect a predictable rate of return from an investment in a utility. In the Scottish context, we would suggest that financial sustainability would, for example, be attractive to Ministers and customers who would expect Scottish Water to be able to weather any shocks during a price setting period without having to either raise prices or increase borrowing.

Over the years since privatisation, a range of measures have been developed which can provide comfort to lenders in the various structures water companies have developed. Even for a company with no quoted shares like the Welsh water company, this means that considerable analytical resource is aimed at understanding the performance of the company in order that debt providers remain informed. This puts pressure on management, indeed in the Welsh case their remuneration is directly linked to debt-related measures.

The measurement and controls range along a spectrum depending on the perceived risks as set out below.

Covenant Structures

Covenants are requirements in a loan document, the breaches of which have consequences as set out in that document. For a water company with a conservatively structured balance sheet, lenders will only require a minimum of financial covenants in addition to what might be termed “standard covenants” relating to provision of information, ability to enter in borrowing transactions under corporate constitution, etc.

An example of covenants likely to be seen in a standard (or “vanilla”) loan document is set out below. The comments are intended to illustrate the concepts rather than be full legal definitions.

Covenant	Comment
Financial Statements	Audited annual and interim accounts to be provided within a certain time from the year-end
Compliance Certificate	Provided with each set of Financial Statements and sets out computations for

	financial covenants
Other Information	Lender to be informed promptly of any litigation, arbitration or other proceeding likely to affect the credit
Interest Cover	Ratio of profits to interest payable not to drop below, say, a ratio of 2:1
Gearing	Debt as a percentage of assets not to rise above, say, 70%
Authorisations	Borrower to maintain all authorisations required by law or regulation
Pari Passu	Borrowing ranks equally with all other unsecured obligations
Negative Pledge	No security will be granted over assets. Normally has exceptions ("a carve out") for a certain amounts and categories
Insurance	Borrower to insure assets and business
Restriction on Disposals	No sale of all or part of assets, subject to carve out
Restriction on Acquisitions	Limitation on acquiring new businesses
Change of Control	Borrower to remain owned by current parent

Documentation would normally include a "cross default clause" which means that a failure to comply with the terms of another loan would cause this facility to be in default. The implications of this are discussed below.

As the perceived risk of lending increases, for example as the proportion of debt in the company increases, lenders will require an increasing level of control. The extreme cases in the water sector, where gearing (the level of debt) is deliberately maximised, have seen utilisation of structures developed in the securitisation and project finance markets where lenders have a considerable degree of protection and control including dedicated committed bank lines or cash reserves to pay interest in times of difficulty, pledges over the shares in the company so that lenders can take control in extremis, extensive reporting requirements with early warning and trigger levels for ratios, etc.

Examples of additional covenants which might be seen in a non-vanilla deal are set out below.

Covenant	Comment
Cash flow-based interest cover tests including more sophisticated test on Post Capital Maintenance Interest Cover	With early warning levels and Trigger Ratios. Reaching one of these leads to automatic, pre-determined consequences from further reporting requirements to appointment of investigating engineers
Debt: Regulated Asset Value	More sophisticated than gearing, this measures debt against the asset value on which the company is allowed to earn a return
Forward-looking liquidity test	Forecasts showing liquidity to meet capex and interest charges
Interest cover tests on senior debt only	Variations on cash interest cover for different classes of debt. The more senior the debt, the higher the interest cover must be. Also for gearing
Debt Service Reserve Accounts	Cash or undrawn committed facilities to be maintained sufficient to cover, say, 12 months interest
Capital Reserve	Capex to be pre-funded, say for the next 12 months

In addition, a highly leveraged company would be expected to offer what security it could. Water companies cannot, by law, pledge their core operating assets but highly leveraged ones usually offer a pledge of the shares owned by its parent as well as agreeing to quite severe restrictions on diversification away from the core water business. In order to achieve a suitable credit rating (see

below for importance of this) it would also be obliged to “tranche” its debt, in other words to limit “refinancing risk” by not having more than a certain percentage of debt mature in any one period.

Implications of Covenant Breaches

For breaches of non-financial covenants, for example late provision of financial information or “technical breaches” where very precise wording of definitions may cause an unintended effect, the company is likely to approach the lenders to consider waiving the breach. If it is an isolated incident, the lenders would generally be sympathetic to such a request.

For more serious breaches, broadly speaking, the banks will be in a stronger position to influence the actions of the directors since, at the point of breach, they will be legally entitled to demand immediate repayment of the loan.

In practice however, lenders normally prefer to negotiate a mutually agreed compromise having previously agreed a 'standstill' period where the banks agree not to take precipitative action until other options have been explored.

In these circumstances, Banks will often refuse further drawdowns and request up to date and detailed information regarding the company's finances. They could possibly appoint what are known as 'investigating accountants' to carry out an independent review of the financial status of the company.

In extreme cases the banks could ultimately put the company into administration. In reality, banks will normally prefer that a company continues to trade rather than to break it up since experience suggests that recovery of amounts lent is often higher if this route is adopted.

If early warning levels or 'trigger ratios' are documented and these are breached, consequences may include a prohibition on dividend distribution, ability for lenders to appoint investigating accountants and in certain circumstances, to appoint new directors of the lenders choosing.

Conditions precedent

Conditions Precedent are terms which have to be met before a loan is first made available for drawing. They might normally include the following:

Covenant	Comment
Copy of the constitutional documents of the Borrower	Which the bank will check for evidence of borrowing money being within the company's powers (intra vires)
Resolution of the Board of Directors approving entry into the facility and authorising, say, the Treasurer to sign documentation	Signature lists showing examples normally required
An arrangement fee	This will need to be paid prior to drawing
Legal opinion	
Certificate that borrowing the facility in full would not breach any limit	

In a more complex transaction like a project financing there may be additional requirements, for example “due diligence” (careful checking and reporting) by independent technical experts of certain aspects, for example capital expenditure requirements or environmental issues. Drawdown might only be

allowed against presentation of certain documents evidencing expenditure on authorised items specified within the loan document.

Representations and Warranties

These are made on signing and also repeated each time the facility is utilised. They might include the following:

- Confirmation of the status of the Borrower and its continuing ability to legally perform its obligations under the documentation
- Confirmation that the Borrower is not in breach of any of the terms of the agreement nor will borrowing under the agreement put it in breach
- Confirmation that there has been no material adverse change which may negatively affect the Company's financial position since the facility began
- Confirmation that there are no ongoing legal or other procedures which may affect the financial position of the company

It is not usual, even in the most structured 'corporate' facilities, for there to be any specific control over the use of proceeds (for example loan documents may state that proceeds can be used for general working capital purposes) . This contrasts with, for example, a project financing where funds might only be advanced against evidence of appropriate expenditure or progress towards completion (e.g. an architect's certificate).

Importance of credit ratings

OFWAT has, rightly in our view, put a lot of emphasis on the credit rating assigned to issuers of water company debt. This is not just to do with pricing (in a way there is circularity in the process whereby a harsh price review with low price rises would lead to poor financial ratios. This would lead to lower ratings which mean higher borrowing costs which would require higher prices) but, importantly, relates to market access. Several markets are only really available for A-rated credits (for example index-linked debt) and there is also a benefit in enhancing reputation as investor base is diversified internationally.

Theoretically the cost of debt rises at an increasing rate with each drop in rating. ING's own experience supports this. The econometricians in our modelling team look at the default history of the bank's clients and combine this with other research in order to estimate the Expected Default Frequency ("EDF") for each ratings category. The published Moody's EDFs are set out in Table 1; ING estimates are of similar magnitude. The difference when moving from A to Baa territory is noteworthy.

Table 5: Moody's Expected Default Frequencies

Rating	Historical 10yr default rate 1970-1999	Change	% points change
A2	1.54%		
A3	1.78%	15.58%	0.24
Baa1	2.94%	65.16%	1.16

Source: Moody's Rating Methodology Paper November 2000 "Notching for Differences in Priority of Claims and Integration of the Preferred Stock Rating Scale"

The EDFs have an impact on bank pricing. Whilst each bank has its own methodology and each takes into account many factors, we believe that the indications from the syndicated debt market illustrate the impact of falling into Baa territory. A similar effect can be seen on bond spreads where the difference between A2 and A3 pricing is smaller than that between A3 and Baa1.

Table 6: Impact on Bank Margins and Bond Spreads

Rating	5yr Bank Margins (over LIBOR)	Change	10yr Euro-Bond Spread (over mid-swaps) ⁽¹⁾	Change
A2	20bp	-	36bp	
A3	22.5bp	12.5%	40bp	11%
Baa1	27.5bp	22.2%	46bp	15%

Source: Bondware; Bloomberg; ING Financial Markets, ING Syndications

Note: (1) NB Indicative reoffer margin

Furthermore, prospects of future downgrades make it difficult to raise debt without a significant increase in the spread required, so *stable* ratings are needed to ensure adequate funding is available at reasonable rates.

Use of Ratios

In its preparatory work for the 2005-10 review, OFWAT developed, following considerable consultation with ratings agencies, providers of debt and other interested parties, a set of indicators which it would use to measure the financial ratios. It noted that ratings agencies do not simply look at ratios but make judgement based on a much broader qualitative assessment of the company. Furthermore, it is the level and the trend indicated by the whole set of ratios which can influence opinion rather than the level of any specific ratio in any particular year.

OFWAT's intention is to forecast the effects of its pricing decisions on the likely ratings for companies. This is in the context of its belief that a "comfortable investment grade" is essential in order to be able to continue to access the capital markets in the long term.

The ratios used by OFWAT include the following:

- Cash interest cover (i.e. ratio of cashflow to interest)
- Adjusted cash interest cover (i.e. cashflow less capital maintenance cost divided by interest)
- Gearing (i.e. the ratio of debt to RAV)

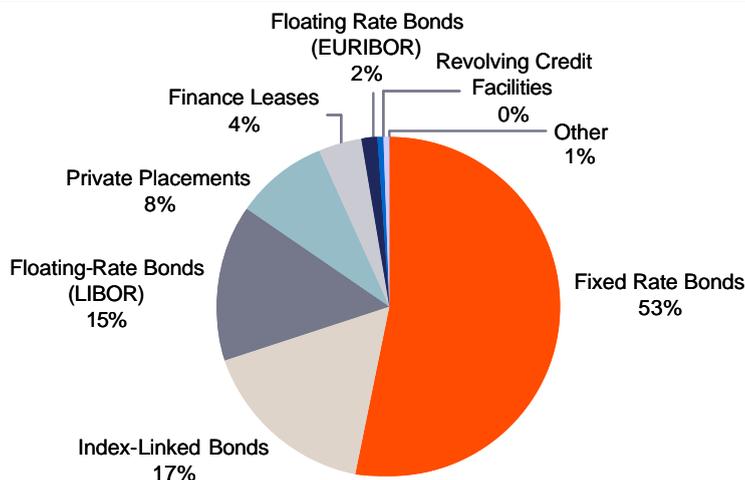
As explained above, banks will often use similar ratios in as covenants in their loan documents. In addition, ratios will be used in lenders' analysis of the creditworthiness of a borrower and hence influence decisions no whether to lend and at what price.

Liquidity and appetite for utilities risk

The sources of debt available to a well-rated UK corporate, let alone one in a regulated sector for which investors have demonstrated their appetite, are many and varied. In summary, it would not be expected there would be any capacity constraint even for a company the size of Scottish Water.

Several very large sums have been raised by water companies in recent years, particularly relating to the highly leveraged companies. The current split of debt for one of these companies is set out in the chart below showing the range and size of debt currently issued by Anglian Water Services Limited.

Figure 5: Anglian Water Group Plc debt breakdown (2004)



Source: Annual Report

A further demonstration of the appetite of lenders for UK regulated companies' debt is the recent finance raised for the acquisition of regional Gas Distribution Networks sold by National Grid Transco. A consortium led by United Utilities and CKI (a Hong Kong based infrastructure company) is paying, for example, £1.4bn for the gas network for the North of England. Over £1bn of debt was raised in the syndicated bank loan market. This deal was launched at the same time as another buyer was raising a similar sum.

In summary, well-rated regulated asset companies have access to considerable liquidity.

Market closures

A major concern for borrowers who require access to large amounts is that markets may be closed to them. Market closure in this context means that it is not possible to borrow, regardless of price paid. Naturally the cost of debt fluctuates with supply and demand as well as with changes in credit quality, maturity sought, etc.

The nature of all debt markets could be said to be less volatile than equity markets which are more prone to day to day fluctuations relating to market sentiment. Beyond this generalisation, though, it is possible to differentiate between the debt markets.

The syndicated loan market is particularly robust. Although certain credit classes have, on occasion, found it difficult to access the market (e.g. Russian banks, Latin American companies) there has not been a time in the last 25 years where ING has seen a regulated utility unable to access the syndicated loan market.

The capital markets tend to be more vulnerable to investor sentiment. After events such as the terrorist attacks on 11 Sep 04, there can be periods where

there is no issuance at all for periods as long as six weeks. Even this is a generalisation, since ING led an equity issue for John Laing plc within 6 weeks of "9/11".

Interest rate changes can lead to significant changes in investor appetite, particularly when the trend changes direction. Even unexpected central bank announcements or bad economic figures can lead to investor appetite drying up for a week.

There are contrasts between investor classes (e.g. the USPP market, for example, is "always open for business") as well as issuer classes (regulated utilities being one of those that can be most certain of always finding an investor).

Despite the examples given of market closures, the UK water sector has raised billions of pounds since privatisation without having to face market closure.

5. Conclusions: applicability to Scottish Water financing

The debt markets in England and Wales have developed since privatisation of the water industry in 1989 a sophisticated ability to assess, monitor and opine on the financeability of water companies. Structures have been developed which provide comfort adequate, in conjunction with this ability, to allow very large sums to be raised at reasonable cost. The capital expenditure programme has thus been funded without any suggestion that debt markets might be saturated and a very wide range of debt products is available.

The regulatory regime has developed over this period into one considered by many observers to be a benchmark for transparency. The most heated debates in the recent regulatory review were over the speed and necessity of the implementation of programmes of environmental improvements rather than over the methodology by which the necessary capex was translated into prices.

The industry in Scotland is at a different stage in its development and faces different challenges. There are, however, points which might usefully be taken from the experience south of the border.

- With a similar level of interest in financial stability, albeit coming from a different perspective, the Scottish Executive may like to consider monitoring performance in a manner more akin to that used by banks and other lenders. This may be found to have consequential benefits in transparency and ease of comparison of performance both with other companies and over time with implications for management incentivisation. Ratios may be seen as a “hands off” way of measuring performance and hence less subjective than other methods.
- In addition, the inclusion of some of these ratios as covenants in loans made to Scottish Water would allow for the possibility of pre-determined remedies. In other words, in the same way as breaches of covenants can have an escalating impact on a bank’s control over a borrower, the Executive could consider, in advance of there being any suggestion of a problem, appropriate actions which could be mandated should ratios suggest that financial stability was threatened. Sanctions might range from additional reporting requirements through to more direct control of activities, perhaps including the ability to appoint new management. Whilst any sanctions may well be already theoretically available, this alternative approach could, again, have the benefit of being seen as “hands off”. In addition, there may be benefits perceived in setting out remedies in advance of any difficulties rather than reactively developing policy in a “crisis”.
- The Executive may also wish to consider what appropriate conditions precedent to drawdown might be used. For large capital projects, for example, it might be interesting to consider drawdown being allowed only against evidence of expenditure.
- Private sector companies retain the ability to refinance debt with a wide range of instruments to achieve their preferred spread of maturities and minimise funding costs. Scottish Water is currently restricted in its ability, for example, to refinance debt borrowed in years when interest rates were higher. It may be interesting to

consider introducing a degree of private sector debt when a suitable tranche of existing debt matures. This may be felt an opportunity to introduce additional discipline into this area. If, for example, debt was raised in the bank or capital markets there would be an additional degree of scrutiny from a new source on an ongoing basis.

- Although simply replacing public sector debt with bank or bond debt would affect flexibility and the level of scrutiny but not change, in theory, the public sector borrowing requirement, it would be possible to conceive an approach which kept the industry in public hands but moved it far enough away from the state for its borrowings to be “off-balance sheet” (i.e. not count) for the Executive. This is currently the case for Network Rail.

The detailed development of any or all of the above points will require further study. Nonetheless, it appears that the experience since privatisation south of the border may reveal some relevant points as the Scottish industry develops.

