

**WSX34 –
Annexes –
Financial
resilience and
financeability**

Business plan
2025-2030



Wessex Water
YTL GROUP

FOR YOU. FOR LIFE.

WSX34 - Annexes – Financial resilience and financeability

CONTENTS

A1 Notional financeability – report by Economic Insight	1
---	---

This supporting document is part of Wessex Water’s business plan for 2025-2030.

Please see ‘WSX00 – Navigation document’ for where this document sits within our business plan submission.

More information can be found at wessexwater.co.uk.

A1 Notional financeability – report by Economic Insight

SEPTEMBER 2023



NOTIONAL FINANCEABILITY

Assessment of Wessex Water's PR24 Business Plan

Legally privileged and commercially confidential

CONTENTS

Executive summary	3
Assessing notional financeability	7
Financeability of Wessex's PR24 Business Plan	14
Annexes	20



EXECUTIVE SUMMARY

IT IS IMPORTANT TO ENSURE THAT A NOTIONALLY EFFICIENT FIRM CAN ATTRACT AND RETAIN THE INVESTMENT IT REQUIRES TO FINANCE ITS FUNCTIONS.

- It is important to ensure that a ‘notionally efficient’ firm can attract and retain the investment it requires to finance its functions, as this ensures the water industry in England and Wales will be able to meet the needs of customers, and environmental and societal goals, both over the near- and long-term.
- Wessex Water have therefore commissioned Economic Insight to provide:
 - a) an independent evaluation of the appropriate approach to assessing notional financeability, reflecting best practice and in line with finance theory; and
 - b) an independent assessment of whether Wessex Water’s PR24 Business Plan is financeable, under such an approach.
- Consistent with this, Ofwat has a primary (financing) duty to ensure that water companies can finance the proper carrying out of their statutory functions. In line with accepted regulatory precedent, Ofwat (and other sectoral regulators) interprets this duty so as to apply to a notional (hypothetically efficient) company, and under a notional capital structure.*
- At PR24, Ofwat requires company Boards to provide assurance that their business plans are financeable on the basis of the notional structure. Specifically, Ofwat explains that company Boards are to give assurance that:
 - *“the business plan is financeable on the basis of the notional capital structure. This assurance should take account of all components of the business plan, including our early view on the allowed return on capital for PR24.”*
 - And that, again on a notional basis, plans are: *“consistent with maintaining target credit ratings at least two notches above the minimum of the investment grade”* (which Ofwat defines as being BBB+/Baa1).**

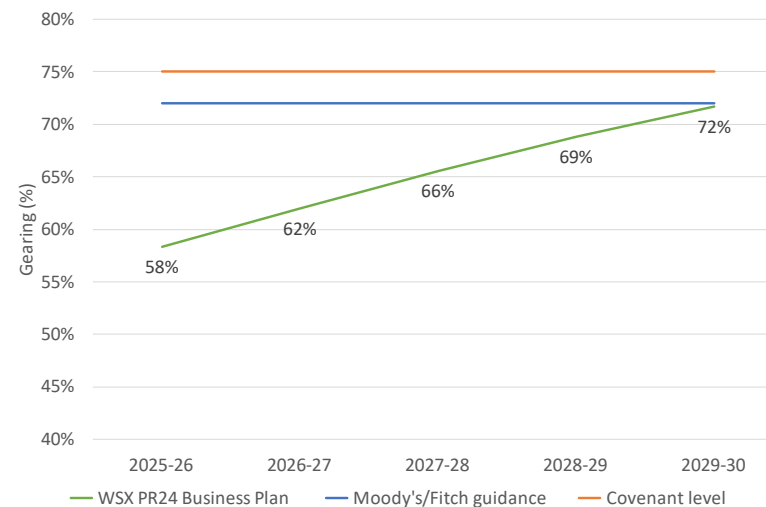
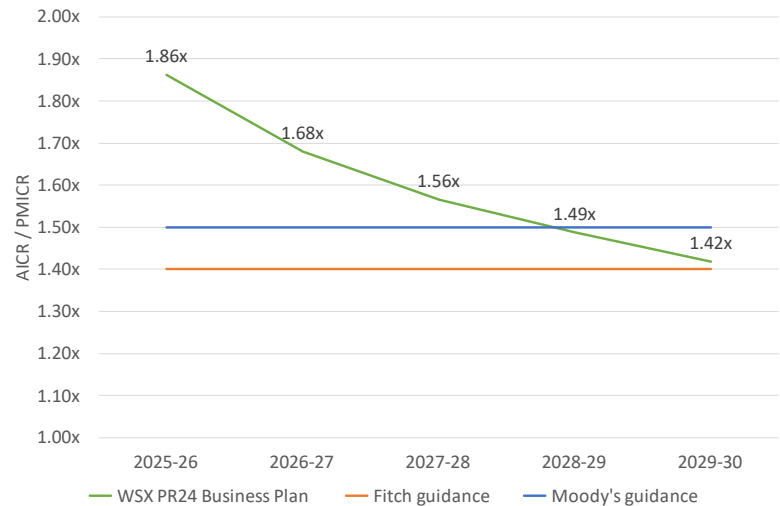
* *‘Our final methodology for PR24.’ Ofwat (December 2022); p.115.*

** *‘Our final methodology for PR24.’ Ofwat (December 2022); Table 10.2.*

WESSEX'S PR24 BUSINESS PLAN MEETS THE NOTIONAL FINANCEABILITY ASSURANCE STATEMENT REQUIREMENT *IN RELATION TO DEBT FINANCE.*

- In keeping with Ofwat's method and assurance requirement, Wessex Water have modelled the credit metrics implied under their PR24 Business Plan and found that these are consistent with securing the target investment grade rating *for debt finance*, as shown in the adjacent figure.
- In doing so, and also as per Ofwat's method and assurance statement requirement, Wessex adopt Ofwat's early view of the WACC and Ofwat's proposed notional capital structure (gearing of 55%), and only undertake the analysis for a base case scenario.
- Wessex's PR24 Business Plan therefore meets the notional financeability assurance statement requirement *in relation to debt finance*.

Figure: Credit metrics for Wessex's PR24 Plan, under Ofwat's method



Source: Wessex Water.

HOWEVER, UNDER AN APPROPRIATE APPROACH TO NOTIONAL FINANCEABILITY, WESSEX'S PR24 BUSINESS PLAN IS NOT FINANCEABLE (USING OFWAT'S EARLY VIEW OF THE WACC).

- The preceding analysis does not provide a sufficient basis for concluding that an (appropriately characterised) notional firm is, in fact, financeable. More specifically, and as explained further in the remainder of this pack, established best practice and finance theory says that an appropriate approach to notional financeability should:
 - a) include both debt finance and the equity return (specifically, ensuring that appropriate weight is placed on the equity side, and including an assessment of how risk impacts expected equity returns); and
 - b) be based on an appropriately characterised notional firm.
- We have therefore tested whether Wessex's PR24 Business Plan is financeable under such an approach and find that Wessex's Plan is not notionally financeable (using Ofwat's early view of the WACC).*
- The remainder of this pack is structured as follows:
 - In Section 2, we discuss the appropriate approach to assessing notional financeability.
 - In Section 3, we test whether Wessex Water's PR24 Business Plan is financeable under such an approach (using Ofwat's early view of the WACC).
 - In Section 4, we present the following accompanying Annexes:
 - ▶ Annex A provides a discussion of the theory and empirical evidence behind efficient capital structures;
 - ▶ Annex B presents details of our cross-industry gearing analysis;
 - ▶ Annex C explains how we have identified the notional firm for the purposes of our notional financeability assessment;
 - ▶ Annex D details our independent RoRE risk modelling; and
 - ▶ Annex E sets out our independent financial modelling.

* Our analysis is based on data provided by Wessex Water as of 13/09/2023.



ASSESSING NOTIONAL FINANCEABILITY

AN APPROPRIATE APPROACH TO FINANCEABILITY SHOULD INCLUDE BOTH DEBT FINANCE AND THE EQUITY RETURN (WITH THE LATTER TAKING INTO ACCOUNT THE IMPACT OF RISK ON EXPECTED EQUITY RETURNS).

- Established finance theory and best practice say that, for a firm to be financeable, it is necessary that it is both able to: (a) earn a reasonable return (on its capital); and (b) raise finance on reasonable terms. More specifically:
 - a) The **ability to earn a reasonable return** includes ensuring that: (i) the overall return (the WACC) is set at the appropriate (market) level*; and (ii) the ‘expected’ equity return, which factors in the impact of risk, is equal to the allowed cost of equity (for an efficient firm).
 - b) The **ability to raise finance on reasonable terms** involves ensuring that the notional firm is able to meet the target investment grade rating for debt finance. Ofwat indicates that companies should target a credit rating of at least two notches above minimum investment grade (which Ofwat defines as being BBB+/Baa1) for the notional firm in their PR24 Business Plans.
- The second limb of financeability (b) exists because, even if the overall return (WACC) were set at the appropriate level, the financial metrics of the notional firm in individual years (which are taken into account by credit rating agencies when issuing debt ratings) may mean it is not financeable in practice (due, for example, to timing mismatches between cash inflows and outflows).
- Ofwat’s statements regarding financeability in its PR24 Final Methodology are, at face value, consistent with this approach in broad terms.

“We interpret our financing duty as a duty to secure that an efficient company with the notional capital structure can finance its functions, in particular by securing reasonable returns on its capital. In doing so, it will be able to raise finance on reasonable terms while protecting the interests of current and future customers (emphasis added).”

‘Our final methodology for PR24.’ Ofwat (December 2022); p.115.

**And thus, both the allowed cost of debt and cost of equity must be set appropriately.*



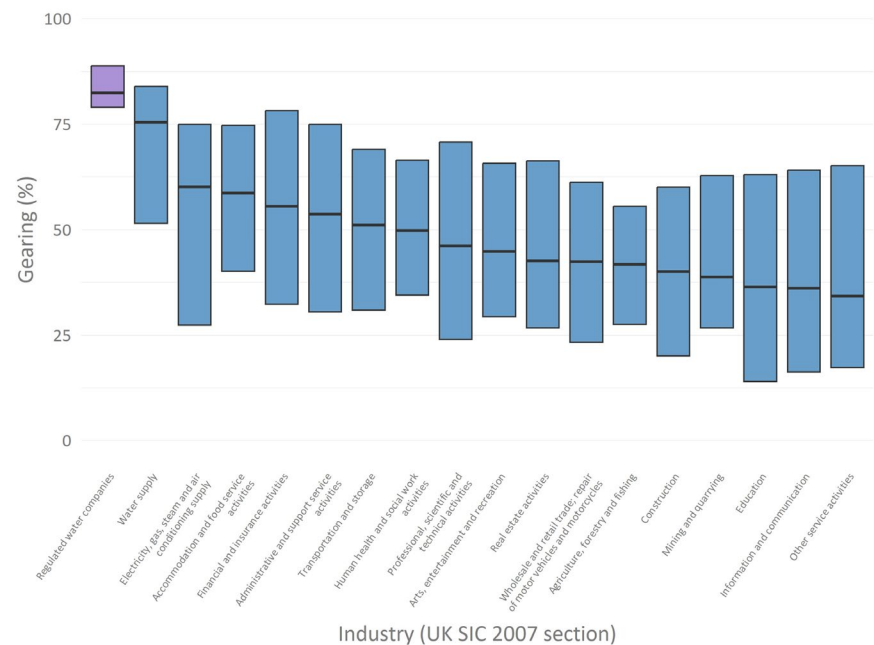
IT IS ALSO IMPORTANT TO BASE THE ASSESSMENT OF NOTIONAL FINANCEABILITY ON AN APPROPRIATELY DEFINED NOTIONAL FIRM.

- In line with its duties under the Water Industry Act (1991), as well as established best practice, Ofwat assesses financeability with respect to a 'hypothetical' (or notional) efficient firm, with a notional capital structure. This reflects the fact that economic regulation is intended to incentivise outcomes consistent with a competitive market; and that therefore, regulators do not have a duty to ensure that an actual (potentially inefficient) firm is financed.
- Relatedly, the economic rationale for setting a notional capital structure is that it allows regulators to leave 'actual' capital structure decisions to companies, such that any risks associated with adopting inefficient capital structures are borne by shareholders (rather than customers).
- For the assessment of notional financeability to be robust, it is important that it be based on an appropriately characterised notional firm. More specifically, and as explained further on the subsequent slides, it is important that the level of notional gearing be:
 - set at the efficient level and be evidence-based; and
 - internally consistent with other assumptions.

THE LEVEL OF NOTIONAL GEARING SHOULD BE SET AT THE EFFICIENT LEVEL AND BE EVIDENCE BASED.

- The Modigliani-Miller theorem states that the enterprise value of a firm (i.e. the value of a firm's debt and assets) is unaffected by its capital structure. However, as explained further in Annex A, other finance theories explain that there likely are efficient capital structures (i.e. firm value *does* vary with capital structure) and empirical studies support this.
- Indeed, as shown in the adjacent figure, in the real world, we observe variations in average gearing (capital structure) by industry in the UK. Specifically, the median industry gearing ranged from 82% to 34% across the UK in 2022, with higher gearing typically observed in more capital-intensive industries (as illustrated in Annex B). Intuitively, that observable variation strongly suggests that the efficient (optimal) capital structure in one industry is not necessarily efficient in another. It is therefore important to ensure that the level of notional gearing is set at the efficient level and is evidence-based.

Figure: Gearing comparison across UK industries, 2022



Source: Economic Insight analysis of FAME database. Please see Annex B for further details.

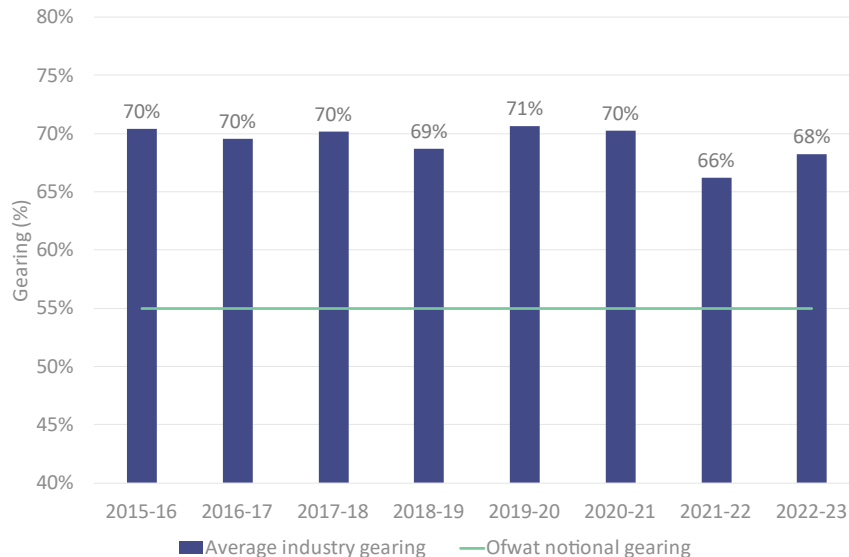
THE LEVEL OF NOTIONAL GEARING SHOULD BE INTERNALLY CONSISTENT WITH OTHER ASSUMPTIONS.

- It is also important that assumptions regarding the notional firm (including notional gearing) are internally consistent with other assumptions employed in setting the price control, as this increases the robustness and reliability of the (notional) financeability assessment.
- In this regard, we are concerned that (at present) Ofwat's assumed notional gearing is inconsistent with: (i) its stated target investment grade; and (ii) its proposed cost of equity. More specifically:
 - ▶ Ofwat states that water companies should target an investment grade of BBB+/Baa1 for the notional firm. However, Moody's rating guidance for UK water companies presents a gearing range of 65%-72% for the Baa1 investment grade.* Ofwat's notional gearing assumption of 55% is, therefore, inconsistent with its target credit rating.
 - ▶ At PR24, Ofwat has *decreased* its assumed notional gearing (reduced from 60% to 55% and thus, is 'assuming' more equity finance). At the same time, it has *decreased* its cost of equity (from 4.19% to 4.14%, CPIH real), relative to PR19. In addition, on our assessment, equity risk is increased for investors at PR24 for a number of reasons, including the large increase in the capital programme and regulatory method changes. Thus, Ofwat's proposed notional gearing is inconsistent with its proposed cost of equity and expected profile of equity risk.

* *'Regulator's proposals undermine stability and predictability of the regime.'* Moody's (May 2018).

AVERAGE GEARING LEVELS IN THE WATER INDUSTRY HAVE HISTORICALLY BEEN CONSISTENTLY HIGHER THAN OFWAT'S 55% NOTIONAL GEARING ASSUMPTION.

Figure: Comparison of average industry gearing and Ofwat notional gearing, 2015-16 to 2022-23



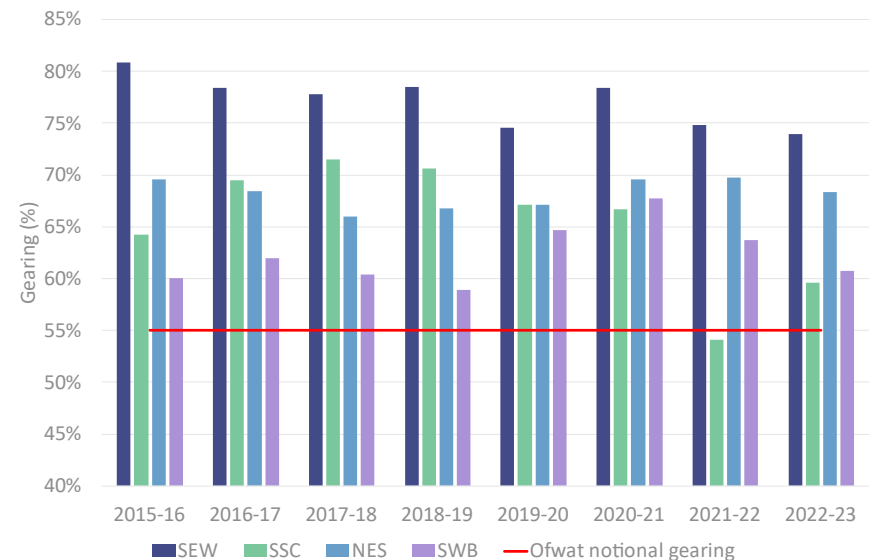
Source: APR data.

- As explained on slide 10, it is important to ensure that the level of notional gearing be data-based, as evidence indicates that there are clear variations in efficient capital structures by industry.
- The adjacent figure therefore compares average annual industry gearing in the water sector between 2015-16 and 2022-23, with Ofwat's notional gearing assumption at PR24. As can be seen, average gearing levels in the water industry have historically been consistently higher than Ofwat's 55% notional gearing assumption.

ONE WAY OF ENSURING THAT THE LEVEL OF NOTIONAL GEARING IS INTERNALLY CONSISTENT IS TO DRAW ON EVIDENCE OF THE ACTUAL GEARING OF FIRMS THAT OFWAT ITSELF HAS PREVIOUSLY IDENTIFIED AS BEING NOTIONALLY EFFICIENT.

- For the reasons set out on slide 11, it is also important to ensure that the level of notional gearing is internally consistent with other assumption regarding the notional firm. One way of achieving this would be to draw on evidence of the actual gearing of firms that Ofwat itself has previously identified as being notionally efficient. As explained further in Annex C, these firms are: (i) Northumbrian Water; (ii) South Staffordshire Cambridge; (iii) South West Water; and (iv) South East Water.
- The adjacent figure therefore compares the actual company gearing of these four firms between 2015-16 and 2022/23, with Ofwat's assumed notional gearing. As can be seen, the 'notionally efficient' firms have historically had actual levels of gearing that are well above Ofwat's currently proposed notional gearing assumption of 55%.

Figure: Comparison of 'notionally efficient' firm actual company gearing and Ofwat notional gearing, 2015-16 to 2022-23



Source: APR data.

The slide features a dark blue background with several overlapping geometric shapes. A large white triangle points to the right, containing the main text. Above it, a purple triangle points downwards. Below the white triangle, two green triangles overlap each other. A thin white line runs diagonally across the right side of the slide.

FINANCEABILITY OF WESSEX'S PR24 BUSINESS PLAN

USING OFWAT'S EARLY VIEW OF THE WACC, AND UNDER AN APPROPRIATE APPROACH TO NOTIONAL FINANCEABILITY, WESSEX'S PR24 BUSINESS PLAN IS NOT NOTIONALLY FINANCEABLE.

- As explained in the previous section, an appropriate approach to notional financeability should: (i) place sufficient weight on the equity return (and take the impact of risk on equity returns into account) *in addition* to assessing the ability to raise debt; and (ii) be based on an appropriately characterised notional firm.
- In this section, we test whether Wessex Water's PR24 Business Plan is financeable under such an approach (and under Ofwat's early view of the WACC). More specifically:
 - Our approach assesses whether the notional firm is both able to: (a) earn a reasonable return, once equity risk is taken into account; and (b) raise finance on reasonable terms.
 - We also base our assumed notional firm on firms that Ofwat itself has previously identified as being notionally efficient. These are: (i) Northumbrian Water; (ii) South Staffordshire Cambridge; (iii) South West Water; and (iv) South East Water. We provide an explanation of how these firms have been identified in Annex C.
- Overall, we find that **Wessex's Plan is not notionally financeable, under an appropriate approach to notional financeability and using Ofwat's early view of the WACC.** As explained in greater detail in the following slides, this is because:
 - Ofwat's early view of the WACC is insufficient to compensate investors for the risks they face;
 - RoRE risk modelling indicates that the (equity) risk faced by the notionally efficient firm at PR24 is skewed to the downside; and
 - Financial metrics implied under Wessex's PR24 Business Plan are not consistent with securing the target investment grade rating, *when using an appropriate level of notional gearing* (i.e. based on the actual gearing of firms that Ofwat itself has previously identified as being notionally efficient) and Ofwat's early view of the WACC.

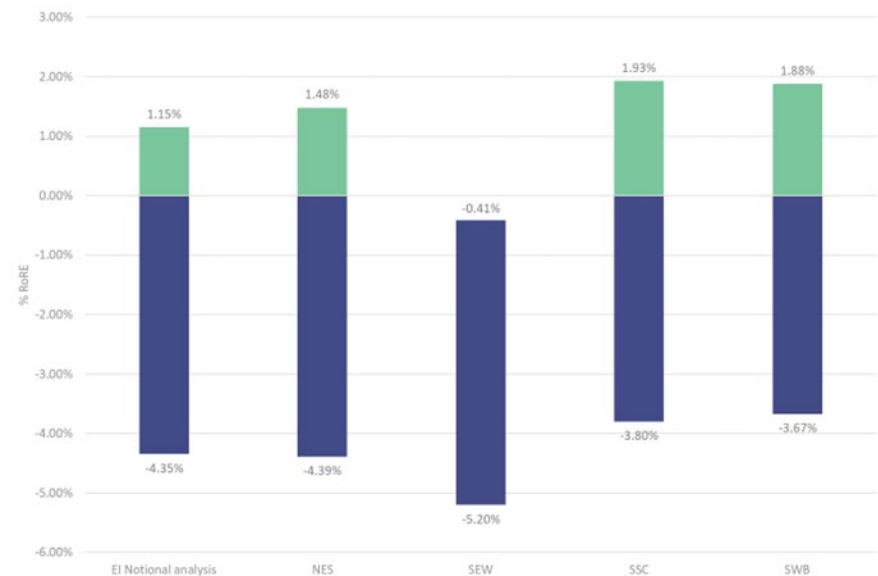
(A) ABILITY TO EARN A REASONABLE RETURN (1)

- The ability to earn a reasonable return includes ensuring that:
 - (i) the overall return (the WACC) is set at the appropriate (market) level; and (ii) the 'expected' equity return is equal to the allowed cost of equity (for an efficient firm).
- In relation to (i), **Ofwat's early view of the WACC is insufficient to compensate investors for the risks they face in practice.** In particular, there are factors which increase the risk faced by investors at PR24, such as the increase in size of the capital programme and the material changes to the wider design of the regulatory framework.
- In relation to (ii), for the expected equity return to be equal to the allowed cost of equity, it is necessary that financial incentives are set such that the 'most likely' outcome for an efficient (notional) firm is one whereby it neither earns net penalties, nor net rewards.
- To assess whether the notional firm's expected equity return is equal to the allowed cost of equity, we have modelled the RoRE risk profile of firms identified by Ofwat as being notionally efficient. We find that **the distribution of risk is consistent with notionally efficient firms having expected equity returns (RoRE) below their allowed cost of equity.** The next slide explains this in further detail.
- This implies that, all else equal (i.e. without a change in Ofwat's approach, or without the above being compensated for in some other way), the notional firm would not be expected to earn its allowed cost of equity at PR24. In other words, **Wessex's PR24 Business Plan is not notionally financeable on the equity-side** (under Ofwat's view of the WACC).
- As can be seen, our results indicate that the (equity) risk faced by the notional firm is skewed to the downside.

(A) ABILITY TO EARN A REASONABLE RETURN (2)

- For each firm previously identified by Ofwat as being notionally efficient, we have undertaken an analysis of the risk range for each building block of PR24, relying predominantly on historical analysis. This includes: totex; retail costs; revenue incentive mechanisms; financing; as well as ODIs and Measures of Experience (MeX).
- In the adjacent figure, we aggregate our risk modelling results across the PR24 building blocks for each 'notionally efficient' firm. As can be seen, our results indicate that the (equity) risk faced by the notional firm is skewed to the downside.
- We provide a detailed explanation of our RoRE risk modelling in Annex D.

Figure: Overall RoRE risk ranges for 'notionally efficient' firms



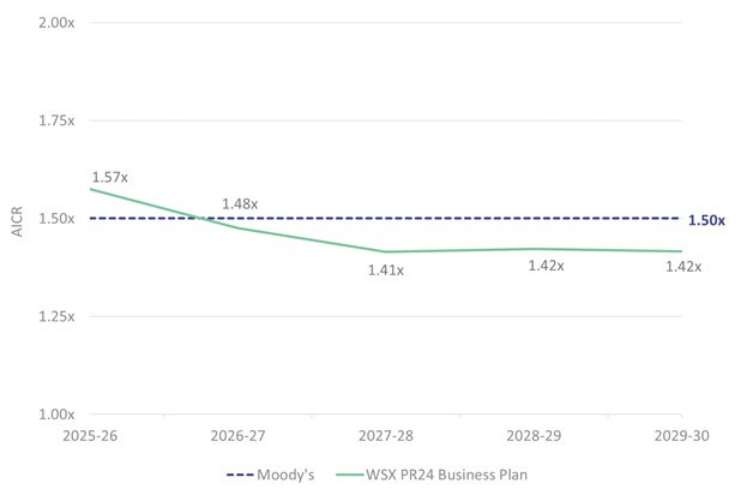
Source: Economic Insight analysis. Please see Annex D for further details.

(B) ABILITY TO RAISE FINANCE ON REASONABLE TERMS (1)

- The ability to raise finance on reasonable terms involves ensuring that the notional firm is able to meet the target investment grade rating for debt finance. Ofwat indicates that companies should target a credit rating of at least two notches above minimum investment grade (which Ofwat defines as being BBB+/Baa1) for the notional firm.
- To assess whether Wessex's PR24 Business Plan is consistent with the notional firm meeting the target credit rating, we have modelled the financial metrics ratings implied under Wessex's Plan and tested whether these are consistent with ratio guidance issued by credit rating agencies. In doing so:
 - We employ our own independent financial model, which is aligned with credit rating agency guidance, as they determine company credit worthiness in practice (please see Annex E for more details);
 - We use Ofwat's early view of the WACC; and
 - We assume *an appropriate level of notional gearing*. More specifically, we present three notional gearing scenarios:
 - ▶ We assume an opening level of notional gearing of 66%, which is equal to the average actual gearing of the four firms identified by Ofwat as being notional efficient (SEW, SSC, NES and SWB) in 2022/23, weighted by their RCV in 2022/23.
 - ▶ We assume an opening level of notional gearing of 65%, which is equal to the average actual gearing of the two WASCs identified by Ofwat as being notional efficient (NES and SWB) in 2022/23, weighted by their RCV in 2022/23.
 - ▶ We assume an opening level of notional gearing of 60%, which is equal to the level of notional gearing set by the CMA at PR19 redeterminations.
- As detailed further on the next slide, under all three notional gearing scenarios, we find that the **financial metrics implied under Wessex's PR24 Business Plan are not consistent with securing the target investment grade rating**, when using Ofwat's early view of the WACC.
- This implies that, all else equal, the notional firm would not be able to raise finance on reasonable terms at PR24. In other words, **Wessex's PR24 Business Plan is not notionally financeable on the debt-side (once the notional firm is appropriately characterised, based on evidence).**

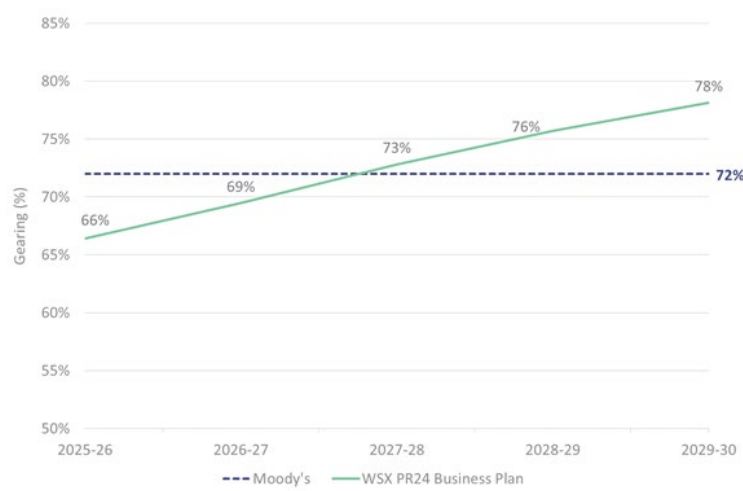
(B) ABILITY TO RAISE FINANCE ON REASONABLE TERMS (2)

Figure: Moody's AICR under Wessex's Plan, over PR24 period



Source: Economic Insight analysis. Please see Annex E for further details.

Figure: Moody's gearing under Wessex's Plan, over PR24 period



Source: Economic Insight analysis. Please see Annex E for further details.

- The adjacent figures present Moody's AICR and gearing metrics under Wessex's Plan over the PR24 period, based on a notional gearing assumption of 66%. As explained on the previous slide, this is equal to the average actual gearing of the four firms identified by Ofwat as being notional efficient (SEW, SSC, NES and SWB) in 2022/23, weighted by their RCV in 2022/23.
- As can be seen, under this notional gearing scenario (and using Ofwat's early view of the WACC), the credit metrics implied under Wessex's Plan are no longer consistent with Moody's ratio guidance for the BBB+/Baa1 credit rating over the PR24 period.
- This is consistent with our findings under the two other notional gearing scenarios (i.e. 65% and 60%). Results under these modeling scenarios are detailed in Annex E.



ANNEXES



ANNEX A: EFFICIENT CAPITAL
STRUCTURES

CONTRARY TO THE MODIGLIANI-MILLER THEOREM, IN PRACTICE, THERE ARE CLEAR VARIATIONS IN OPTIMAL CAPITAL STRUCTURES ACROSS INDUSTRIES.

- The Modigliani-Miller theorem states that the enterprise value of a firm (i.e. the value of a firm's debt and assets) is unaffected by its capital structure. If this theory were to hold true, the level of notional gearing set by Ofwat would not matter.
- In practice, however, this theory does not strictly hold and there are various factors that determine efficient capital structures. This is supported by empirical evidence, which indicates that there are clear variations in capital structures across industries. It is therefore important to ensure that the level of notional gearing be set at the efficient level and be evidence-based.
- The rest of this annex is structured as follows.
 - We first discuss the theory behind efficient capital structures and provide an overview of: (i) the Modigliani-Miller theorem and why it does not strictly hold in practice; and (ii) the factors that determine efficient capital structures in practice.
 - We then present a review of the empirical literature on optimal capital structures.



THEORY

MODIGLIANI-MILLER THEOREM – PROPOSITIONS.

The Modigliani-Miller theorem states that the enterprise value of a firm is unaffected by how that firm is financed (whether through equity or debt). The theorem is derived from two propositions, which are implicitly underpinned by a number of assumptions. The theorem's two propositions are outlined below, and the assumptions behind the theorem (and why these break down in practice) are outlined in the following slide.

PROPOSITION 1

Proposition 1 states that the following equation holds:

$$V_U = V_L$$

Where:

- V_U is the value of an unlevered firm (price of buying a firm composed only of equity); and
- V_L is the value of a levered firm (price of buying a firm that is composed of some mix of debt and equity).

The rationale behind this first proposition is as follows. Consider an investor who can buy either of the two firms, U or L. Suppose they are interested in purchasing the levered firm L. Instead of purchasing shares of the levered firm L, they could purchase shares of the unlevered firm U, and borrow the same amount of money, X, that firm L does. Then, assuming the investor's cost of borrowing is identical to the firm's, the eventual returns to the investments in either of the two firms should be the same (in an efficient market). Therefore, the price of L must be the same as the price of U minus the money borrowed X, which is the value of L's debt.

PROPOSITION 2

Proposition 2 states that the following equation holds:

$$r_E = r_0 + \frac{D}{E}(r_0 - r_D)$$

Where:

- r_E is the expected rate of return on equity of a leveraged firm, or cost of equity.
- r_0 is the cost of equity for a company with no leverage (unlevered cost of equity, or return on assets with $\frac{D}{E} = 0$)
- r_D is the expected rate of return on borrowings, or cost of debt
- $\frac{D}{E}$ is the gearing ratio

The second proposition states that a company's cost of equity is directly proportional to its leverage ratio, such that the greater the leverage a company has (as indicated by $\frac{D}{E}$), the greater the costs/return required from equity (r_E). The intuition is that, as a company increases its level of debt, and thus in turn its leverage ratio, the probability of default is increased, and therefore the firm is considered a riskier investment. Equity investors expect and require greater compensation for this risk in the form of a higher rate of return (cost of equity), r_E ; hence, the expected rate of return on / cost of equity is positively related to its leverage ratio.

MODIGLIANI-MILLER THEOREM – ASSUMPTIONS.

The Modigliani-Miller theorem is implicitly underpinned by three key assumptions. Below, we outline these assumptions and explain why these assumptions (and therefore the Modigliani-Miller theorem itself) do not hold in practice.

ASSUMPTION 1: THE INVESTOR'S COST OF BORROWING IS THE SAME AS THAT OF THE FIRM

- The Modigliani-Miller theorem assumes that the investor's cost of borrowing is the same as that of the firm.
- However, in practice, these are unlikely to be the same due to, for example:
 - The presence of asymmetric information;
 - Inefficient markets; and
 - Different risk profiles between investors and firms.

ASSUMPTION 2: NO TAX SHIELDING

- The Modigliani-Miller theorem does not account for the reality of corporation tax, and tax-deductible interest on debt.
- The presence of such 'tax shielding' effects of debt, ignoring other frictions, implies the value of the company should increase in proportion to the amount of debt used (where the additional value equals the total discounted value of future taxes saved by issuing debt instead of equity).

ASSUMPTION 3: NO TRANSACTION COSTS

- The Modigliani-Miller theorem assumes there are no transaction costs.
- However, in reality, transaction costs do exist, with implications for the trade-off between investing in equity and debt.

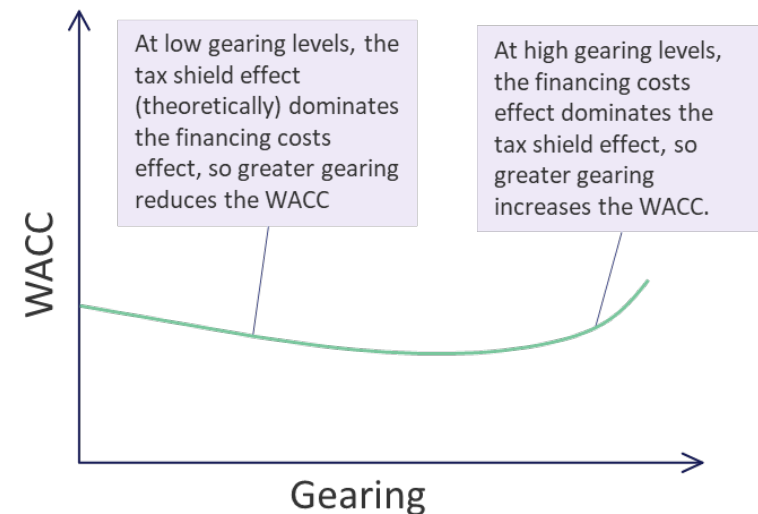
EFFICIENT FIRM-LEVEL CAPITAL STRUCTURES – WACC MINIMISATION THEORY.

The following slides 26 to 28 outline the theory surrounding which factors determine a firm's (and also an industry's) efficient capital structure in practice (given the failure of the Modigliani-Miller theorem). At the centre of optimal gearing ratio theory is the concept that there is a level of gearing for a given sector at a point in time that minimizes the WACC for a firm (which is desirable for minimizing financing costs). This is a result of two competing effects:

- (i) **The 'tax shield effect'**. This effect is the benefit associated with a firm increasing their gearing ratio (using debt to raise finance, instead of equity). The effect comes from the fact debt is an allowable deduction from taxable income, so firms enjoy lower taxes from raising finance via debt as opposed to equity.
- (ii) **The 'financing costs effect'**. This effect is the cost associated with a firm increasing their gearing ratio. This effect comes from the fact that increasing levels of debt makes equity more risky for equity holders (as debt is paid before equity), thus increasing the cost of equity. In addition, at very high levels of gearing, serious bankruptcy risk worries both equity and debt holders alike, resulting in an increase in both the cost of debt *and* capital.

The relationship between the level of gearing and the WACC resulting from these conflicting effects is illustrated in the adjacent figure. As shown, the constant tax shielding effect (assumed to initially dominate the financing cost effect at 0% gearing), coupled with an increasing financing cost effect, result in an optimal gearing ratio (minimizing the WACC), where these two effects are in balance.

Figure: Relationship between gearing and WACC



Source: Economic Insight.

EFFICIENT FIRM-LEVEL CAPITAL STRUCTURES – EXTERNAL FACTORS AFFECTING THE OPTIMAL GEARING RATIO.

The precise shape of the relationship outlined in the figure on the previous slide, along with the gearing level at which the WACC is minimized, depend upon a number of factors. These factors can be grouped into two types: (i) **external factors**, which are discussed below; and (ii) **behavioural factors**, which are discussed on the following slide.

External factors influencing the optimal gearing ratio for a given sector/firm can be further divided into: (a) sector risks; (b) financial market conditions; and (c) economic policy. Some examples of these factors are outlined below.

SECTOR RISKS

Recall the upward slope of the gearing curve in the figure on slide 26 is driven by the default premium on debt. This premium depends upon two components: the probability of default at a given gearing level; and the expected recovery rate in the event of default. Both of these will be influenced by the nature of the risks facing the sector, which will vary by industry. Some examples of these include:

- **Cost risk.** Volatility in costs translates into volatility in profitability, thus affecting the probability of default.
- **Operational and service risks.** These could be related to providing water services, or the treatment/disposal of wastewater, which may result in penalties.
- **Environmental / climate-related risk.** Changes in environmental targets and obligations, or changes in climate patterns may affect both cost and service risk.

FINANCIAL MARKET CONDITIONS

These factors determine the overall supply and demand conditions for equity and debt financing. For example, an increase in the demand for equity financing of infrastructure would increase the cost of equity financing relative to debt financing and therefore influence the optimal gearing range. Some examples of these include:

- **Rules and regulations (e.g. Basel regulations and solvency rules).** These may affect the demand from institutional investors for equity and debt (hence affecting their relative prices).
- **Trends in the investment policies of financial institutions and sovereign fund.** These trends may be significant enough to affect the demand (and hence the relative price and cost) of debt and equity of types of firms / industries.
- **Any other factors influencing supply or demand of capital for investment in infrastructure assets.**

ECONOMIC POLICY

Economic policy factors can affect all firms in an economy or be industry-specific. These factors cover:

- **The tax regime** (i.e. the main rate of corporation tax and system of capital allowances). A higher corporation tax rate increases the tax shield benefits of debt, thus raising the optimal gearing ratio.
- **The level of corporate tax relief for debt interest payments.** Greater tax relief would also increase the tax shield benefit, raising the optimal gearing ratio.
- **Monetary policy with respect to interest rates.** An increase in interest rates will also increase the value of tax shield benefits, but at the same time could be associated with an increase in the cost of debt relative to the cost of equity, which would act in the opposite direction.

EFFICIENT FIRM-LEVEL CAPITAL STRUCTURES – BEHAVIOURAL FACTORS AFFECTING THE OPTIMAL GEARING RATIO.

Behavioural factors, in the context of regulated industries, can be further sub-divided into two categories: (i) effects on the behaviour of **company management** in relation to risk and performance arising from gearing decisions; and (ii) effects on the behaviour of **regulators** in relation to risk and performance resulting from gearing decisions.

EFFECTS ON CORPORATE MANAGEMENT

Following Jensen and Meckling (1976)*, the relationship between gearing and management behaviours relates to the following points:

- Investors have imperfect information about the decisions and performance of management;
- The incentives of management may not align to the long-term interests of investors; and
- Default has a relatively greater negative impact on management.

By imposing a higher level of gearing, the investors impose a discipline on management, since management will be keen to avoid the costs associated with default. This managerial discipline could include a reduction in risk-taking activities. This would result in a shift of the WACC curve in the figure on slide 26, therefore altering the optimal gearing range.

* *'Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure.'* Jensen M.C. and W.H. Meckling (1976).

EFFECTS ON REGULATORS

The relationship between gearing and regulators is similar to that with company management. Regulatory decisions should reflect the long-term interests of investors and customers, but the nature of regulation means:

- Regulators cannot commit to long-term decisions, and face pressure from other stakeholders to make decisions in the short-term that may not align with the long-term interests; and
- Default by a regulated company would be seen as a regulatory failure (as well as imposing costs on customers), and therefore the regulator has an incentive to manage the risk of default.

Consequently, there is an argument that a higher level of gearing encourages the regulator to take decisions that put less risk on the company. This reduction in risk results in a shift of the WACC curve in the figure on slide 26, with an increase in the optimal gearing range.



EMPIRICAL EVIDENCE

Schwartz and Aronson (1967)*

- This study looks to empirically test the hypothesis that firms' optimal financial structures differ significantly across industry classifications, and insignificantly within an industry classification. The authors suggest that *"various classes of firms have developed typical financial structures that are optimal for their operational risks and asset structures"*.
- The authors test this idea by way of a one-way analysis of variance (ANOVA) to examine the effect of industry classification on the ratio of common equity to total assets (therein, financial structure) for both: (i) two given points in time (1928 and 1961); and (ii) across a 40-year period. Firms were divided into four broad industrial classes, namely; (i) railroads; (ii) electric and gas utilities; (iii) mining; and (iv) industrials.
- The results of the first test *"showed no significant statistical differences in the financial structures of a given class of firms either in 1928 or 1961"*, whilst also demonstrating a statistically significant difference in the financial structures of firms in different industry classes. The authors find the results from the second analysis are consistent with the first, however note that structural changes over the 40-year period had the effect of *sharpening* the difference in leverage ratios among industry classes.
- This work concludes that the *"various classes of industries have developed optimum financial structures conditioned by the intensity of their operational risks and by the characteristic of the industry asset nature"*.

* *'Some Surrogate Evidence in Support of the Concept of Optimal Financial Structure,'* Schwartz, E., & Aronson, J. R. (1967). The Journal of Finance, Vol. 22, No. 1; pp 10-18.

Bradley, Jarrell and Kim (1984)**

- This study investigates the variations in firms' leverage ratios brought about by both its 'industry classification' as a single factor, but also by three firm-specific determinants of optimal capital structure. These determinants are the: (i) variability of firm value; (ii) level of non-debt tax shields; and (iii) magnitude of the costs of financial distress.
- With regards to industry classification as a single factor alone, the authors examined the cross-sectional relation between 20-year average firm leverage ratios*** and industrial classification from a sample of 851 firms, covering 25 industries. Their results showed that *"almost 54% of the cross-sectional variance in firm leverage ratios can be explained by industrial classification"* and subsequently, that there existed more variation in mean leverage ratios *across* industries than *within* industries. The findings are consistent with the notion that firms' leverage ratios are industry related.
- On the second issue, the authors regressed firms' leverage ratios on chosen empirical proxies for the aforementioned factors of optimal capital structure. The results from the cross-sectional regressions show the proxies for the variability of firm value and level of non-debt tax shields to be significantly and negatively related to firm leverage ratios, whilst the proxy for magnitude of the costs of financial distress was positively related to firm leverage ratios.

** *'On the Existence of an Optimal Capital Structure: Theory and Evidence'* Bradley, M., Jarrell, G. A., & Kim, E.H. (1984). The Journal of Finance, Vol. 39, No. 3; pp 857-878.

*** Whereby, the leverage ratio is defined as the ratio of the mean level of long-term debt (book value) to the mean level of long-term debt plus market value of equity.

Scott (1972)*

- This study investigates the evidence surrounding the hypothesis that various industries have developed notably different financial structures as a result of their varying degrees of business risk. The authors propose that *“if the financing decision is critical with respect to the valuation of the firm, then decision makers in various industry groups have recognised this fact and developed financial structures suited to their particular business risk”*.
- The study looked at 12 different unregulated industries, of which contained 77 firms in total, and generated a sample that spanned across a 10-year period (1959-1968). The percent of common equity as a share of total assets (therein, its financial structure) was calculated for each firm and the ANOVA test was employed to *“test for significant differences in the mean equity ratios among industry groups”*.
- The results led to a *rejection* of the null hypothesis, which implied that the variability of sample means *among* industry classes was greater than *within* industry classes and thus such industry differences were deliberate. These findings were consistent with that of Schwartz and Aronson (1967).

* *‘Evidence on the Importance of Financial Structure’*. Scott, D. F. (1972). Financial Management, Vol. 1, No. 2; pp 45-50.

Scott and Martin (1975)**

- This work proposes further evidence that is in contrast to the notion that a relationship between industry classifications and financial structures do not exist.
- The study focuses on 12 industries, comprised solely of US-based firms, with data spanning over the period 1967-1972. The sample size increases from 159 firms in 1967 to 277 firms in 1972. Differing from the previous works, such as Schwartz and Aronson (1967) and Scott (1972) who solely employ a parametric test, this study also makes use of a nonparametric test.
- The results of the parametric analysis of variance of the equity ratios *“indicate that industry class is indeed a determinant of financial structure”*. The findings of the nonparametric test is also supportive of this conclusion; with the null hypothesis of ‘no significant differences in equity ratio ranks’ being rejected for each year of the data.
- The authors therefore concluded that it was *“unwise to disregard industry class as a determinant of financial structure because financial structures are not, in fact, identical across a wide array of industries”*.

** *‘Industry Influence on Financial Structure’*. Scott, D. F., & Martin, J. D. (1975). Financial Management, Vol. 4, No.1; pp 67-73.

Kim and Sorensen (1986)*

- This study investigates the presence of agency costs and their relation to the debt policy of corporations, whilst also empirically testing for the relations between firm leverage ratios and variables such as (i) business risk**; (ii) growth rate; and (iii) size of the firm.
- Data was gathered from 168 large industrial firms, not belonging to regulated industries, between 1970-1980. The authors used the data to run a regression in which the debt ratio (which is defined as the ratio of long-term debt to total capitalization) is regressed on the following explanatory variables: (i) annual growth rate in EBIT; (ii) the coefficient of variation in EBIT; (iii) the coefficient of variation in market value of equity; (iv) the average level of total assets; (v) the average federal tax rate; (vi) tax liability divided by EBITDA; (vii) the average rate of depreciation; and (viii) a one-zero dummy with one for firms heavily owned by insiders.
- Notably, the regression results show the annual growth rate in EBIT to have a significantly negative coefficient; the authors highlight that *“As annual EBIT growth increases by 1 percent, the debt ratio decreases by approximately one-third of a percent...”*. This suggests that firms with large growth opportunities will use *less debt* in optimality.

* *‘Evidence on the Impact of the Agency Costs of Debt on Corporate Debt Policy’* Kim, W. S., & Sorensen, E. H. (1986). The Journal of Financial and Quantitative Analysis, Vol 21, No. 2; pp 131-144.

** Whereby industry class and size are viewed as proxies for business risk.

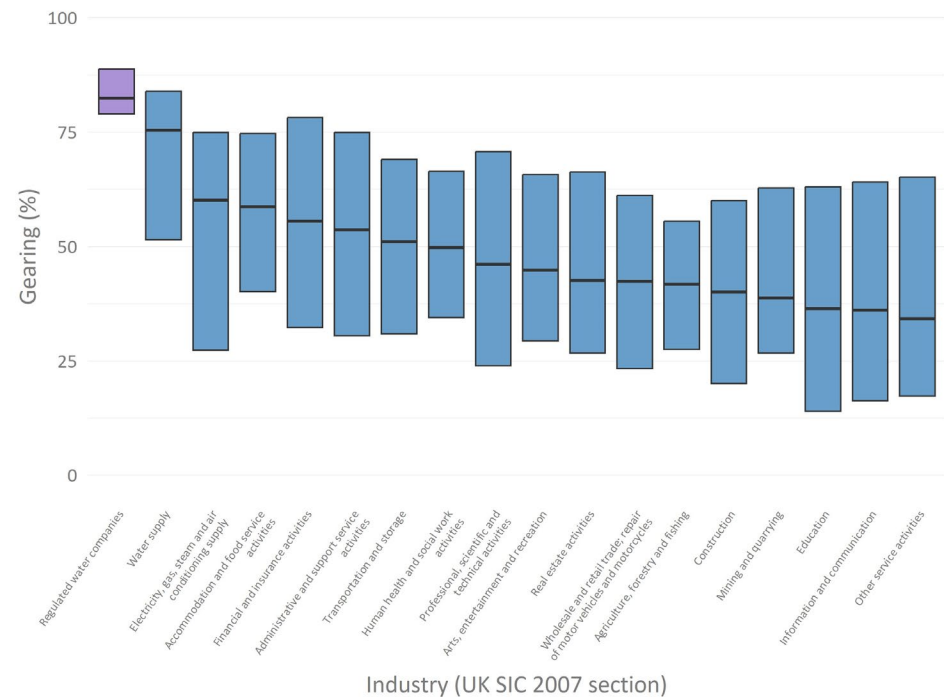


ANNEX B: CROSS-INDUSTRY GEARING ANALYSIS

EVIDENCE FROM FAME INDICATES THAT THERE IS CLEAR VARIATION IN CAPITAL STRUCTURES BY INDUSTRY.

- Having established that there is empirical support for efficient capital structures, we are indeed able to observe variation in gearing (capital structure) across industries, as shown in the adjacent figure.
- This analysis considers firms with a sufficient turnover in 2022, excluding dormant and micro-entity firms, and includes firms based primarily in the UK. Industries were identified using UK SIC classifications, specifically the highest-level 'section' codes. After cleaning the data for anomalous entries, industries comprised of less than 100 firms were removed.
- Industry gearing was calculated as the proportion of capital employed attributed to long-term liabilities.

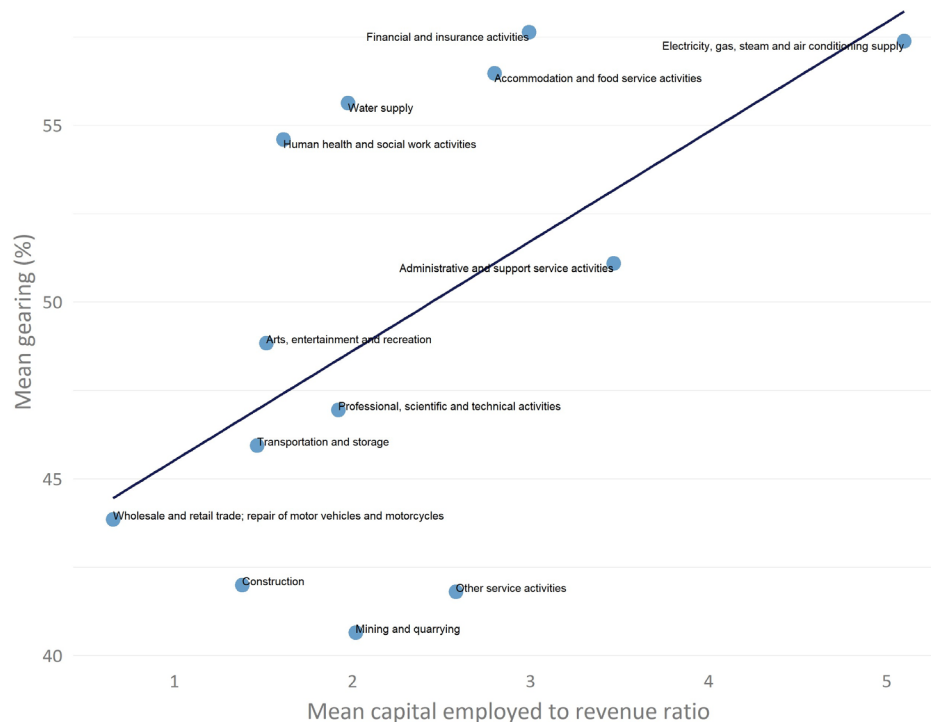
Figure: Gearing comparison across UK industries, 2022



Source: Economic Insight analysis of FAME database.

EVIDENCE FROM FAME ALSO SHOWS A POSITIVE RELATIONSHIP BETWEEN CAPITAL STRUCTURE AND CAPITAL INTENSITY.

Figure: Gearing-capital intensity relationship across UK industries, 2022



Source: Economic Insight analysis of FAME database.

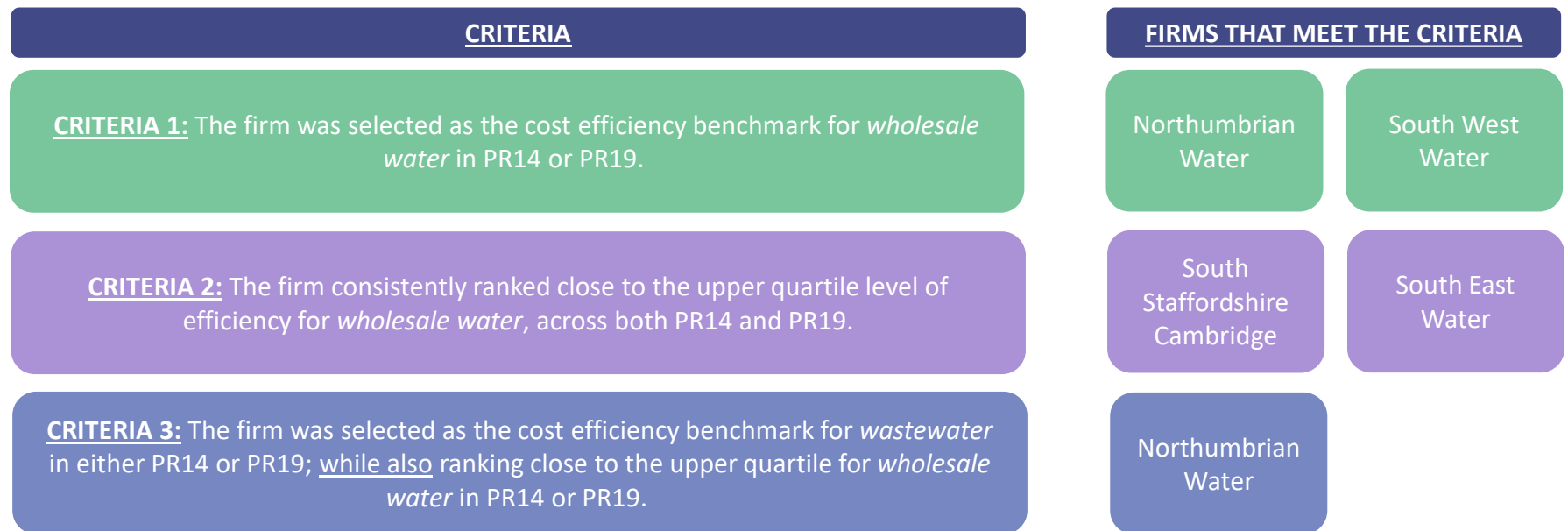
- Further analysis indicates that the diversity in capital structure observed varies by the capital-intensity of industries. As shown in the adjacent figure, there is a positive relationship between the mean ratio of capital employed to revenue and mean gearing, across selected UK industries. This suggests that the optimal capital structure in an industry is determined, in part, by the proportion of capital employed. The more capital-intensive an industry, the higher both the mean level of gearing and the efficient level of gearing.
- This analysis was undertaken using the selection of firms from the cross-industry gearing analysis on the previous slide, where data was available.



ANNEX C: IDENTIFYING THE NOTIONAL
FIRMS

WE HAVE SELECTED THE 'NOTIONALLY EFFICIENT' FIRMS ACCORDING TO THREE CRITERIA. NORTHUMBRIAN WATER, SOUTH WEST WATER, SOUTH STAFFORDSHIRE CAMBRIDGE AND SOUTH EAST WATER MEET THESE CRITERIA.

- As Ofwat takes a view of the firms it deems to be cost efficient in both wholesale water and wastewater at each price control, there are a number of ways in which we could arrive at a view of the 'notionally efficient' firm, for the purposes of our notional financeability assessment. To limit our selection of firms, we have developed a set of three criteria, shown in the figure below.



- As shown, there are four firms that meet at least one of these criteria. These are: (i) Northumbrian Water; (ii) South West Water; (iii) South Staffordshire Cambridge; and (iv) South East Water.



ANNEX D: EI RORE RISK MODELLING

OFWAT'S ASSERTION THAT RISK IS BALANCED FOR THE NOTIONAL FIRM AT PR24 IS NOT SUPPORTED BY EVIDENCE.

- The ability to earn a reasonable return includes ensuring that: (i) the overall return (the WACC) is set at the appropriate (market) level; and (ii) the 'expected' equity return is equal to the allowed cost of equity (for an efficient firm).
- For the expected equity return to be equal to the allowed cost of equity, it is necessary that Ofwat sets its various financial incentives such that the 'most likely' outcome for an efficient (notional) firm is one whereby it neither earns net penalties, nor net rewards.
- **Under its final methodology for PR24, Ofwat has stated that it considers risk to be broadly symmetrical for the notional firm, ranging from -4.85% to 4.80% (RoRE).*** That is to say, Ofwat's position is that the notional firm would be expected to earn its allowed cost of equity, under Ofwat's method.
- However, in our view, Ofwat's position is not well-supported. This is because (in the main) Ofwat's approach is to simply 'impose' symmetrical risk ranges around the price control parameters it sets (which is self-fulfilling). Instead, Ofwat should have identified the 'most likely' outcome for each parameter by using risk analysis as an input in determining said parameters in the first place (i.e. selecting the P50 for each parameter).
- Prior to knowing Ofwat's determinations, a logical way to obtain a provisional view of notional risk is to utilise data in relation to the performance of companies that Ofwat has taken as the efficiency benchmark over prior price controls (i.e. firms Ofwat has deemed to be 'notionally efficient').
- This is because, had Ofwat successfully balanced notional risk under its previous determinations, we would expect the data / evidence to be consistent with those same firms: (i) having an expected equity return in line with their allowed cost of equity; and (ii) having symmetrical risk (and vice-versa).
- Following from the above, the approach we have adopted is to: (a) identify firms Ofwat has previously identified as being the benchmark for the notional firm; and (b) examine their RoRE risk profile, *under Ofwat's method for PR24*.

* *'Creating tomorrow, together: Our final methodology for PR24 – Appendix 10: Aligning risk and return', Ofwat (2022), page 10.*

OUR ANALYSIS INDICATES THAT THE LEVEL OF RISK FACED BY THE NOTIONALLY EFFICIENT FIRM AT PR24 IS SKEWED TO THE DOWNSIDE.

- Under the approach set out on the previous slide, we have analysed the RoRE risk faced by the following four companies: (i) Northumbrian Water; (ii) South Staffordshire Cambridge; (iii) South West Water; and (iv) South East Water. As explained in Annex C, this is because:
 1. Northumbrian and South West were selected as the efficiency benchmark firms for wholesale water in PR14 and PR19 respectively.
 2. Both South Staffordshire Cambridge and South East Water consistently ranked close to the upper quartile cost efficiency level for wholesale water, across both PR14 and PR19.
 3. Northumbrian Water was selected as the efficiency benchmark for wastewater in PR19; and ranked close to the upper quartile cost efficiency level for wholesale water in PR19.
- For the above firms, we have undertaken an analysis of the risk range for each building block of PR24, relying predominantly on historical analysis. This includes: totex; retail costs; revenue incentive mechanisms; financing; as well as ODIs and Measures of Experience (MeX).
- After determining the risk ranges for each building block of PR24 (and for each of the four notional firms), we have aggregated these into one overall range. To do this, we used a weighted average approach, weighting the firms by their wholesale water RCV.
- As set out in greater detail in the following slide, the risk range resulting from this analysis is:
 - **Between -5.64% and 2.46%** when using a Monte Carlo approach to aggregating the ODI and MeX risk; and a simple aggregation approach to aggregating the risk ranges of each building block.
 - **Between -4.35% and 1.15%** when using a Monte Carlo approach to aggregating both the ODI and MeX risk; and the individual risk ranges of each building block (we consider this approach to be more robust).
- **These results therefore indicate that the (equity) risk faced by the notionally efficient firm at PR24 is likely skewed to the downside, under Ofwat's method.**

OUR PRELIMINARY VIEW OF THE RISK FACED BY THE NOTIONALLY EFFICIENT FIRM AT PR24 IS A RANGE BETWEEN –4.35% AND 1.15% RORE (UNDER A MONTE CARLO AGGREGATION APPROACH).

- The table below details the weighted average RoRE risk range for Northumbrian Water, South East Water, South West Water, and South Staffordshire Cambridge, across each of the building blocks of PR24.
- We compare these results to the view Ofwat put forward in its Final Methodology.

Risk area	Ofwat FM results for the notional firm		Results for our calculated 'notional' firm	
	Reasonable downside (P10)	Reasonable upside (P90)	Reasonable downside (P10)	Reasonable upside (P90)
Quality and ambition assessment	-0.30%	0.30%	N/A	N/A
Totex	-1.00%	1.00%	-2.57%	1.19%
Retail costs	-0.20%	0.20%	-0.29%	0.10%
Revenue incentive mechanisms	-0.05%	0.00%	-0.05%	0.00%
Financing	-0.65%	0.70%	-1.71%	1.27%
ODIs and MeX (Monte Carlo aggregation)	-2.65%	2.50%	-1.03%	-0.11%
Total (simple aggregation)	-4.85%	4.80%	-5.64%	2.46%
Total (Monte Carlo Aggregation)	N/A	N/A	-4.35%	1.15%

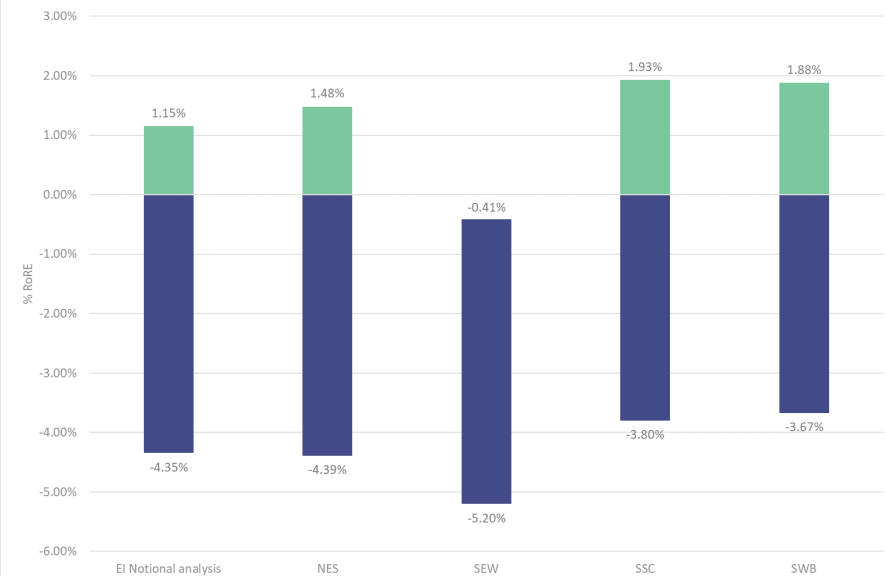
Source: Economic Insight analysis; and 'Creating tomorrow, together: Our final methodology for PR24 – Appendix 10: Aligning risk and return', Ofwat (2022), page 10-12.

As shown, the risk range is narrower when using the Monte Carlo aggregation approach, as this approach reflects the idea that it is unlikely that the more 'extreme' scenarios will be realised across all building block areas simultaneously.

THE IMPLICATION OF THIS EARLY VIEW OF NOTIONAL RISK IS THAT OFWAT'S INCENTIVE PACKAGE IS UNLIKELY TO RESULT IN THE NOTIONALLY EFFICIENT FIRM'S EXPECTED RETURN BEING IN-LINE WITH ITS COST OF EQUITY.

- As illustrated in the adjacent figure, the evidence we have gathered on the distribution of risk is consistent with firms that are considered 'efficient' by Ofwat having expected equity returns (RoRE) below their allowed cost of equity. Risk is also skewed to the downside.
- **This implies that, all else equal (i.e. without a change in Ofwat's approach, or without the above being compensated for in some other way), the notional firm would not be expected to earn its allowed cost of equity at PR24. It would therefore not be financeable, under what we would consider to be an appropriate definition of financeability.**

Figure: Overall RoRE risk ranges for our chosen 'efficient' firms



Source: Economic Insight analysis



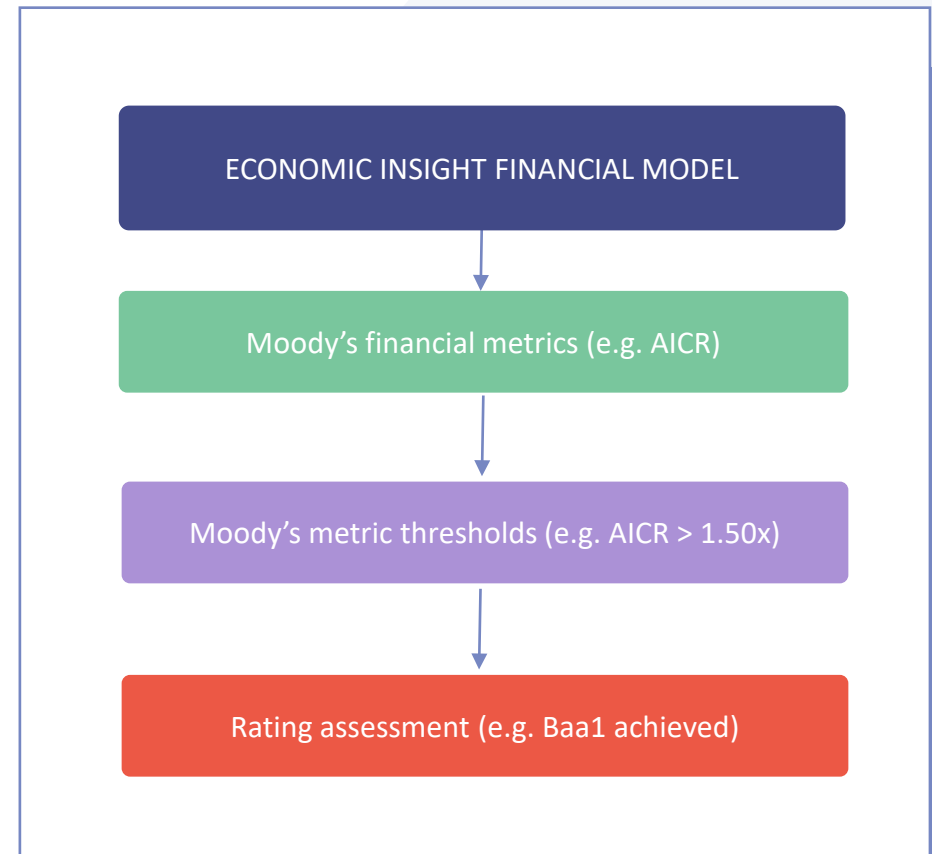
ANNEX E: EI FINANCIAL MODEL

OUR ANALYSIS INDICATES THAT THE FINANCIAL METRICS IMPLIED UNDER WESSEX'S PR24 BUSINESS PLAN ARE NOT CONSISTENT WITH SECURING THE TARGET INVESTMENT GRADE RATING.

- The ability to raise finance on reasonable terms involves ensuring that the notional firm is able to meet the target investment grade rating for debt finance. Ofwat indicates that companies should target a credit rating of at least two notches above minimum investment grade (which Ofwat defines as being BBB+/Baa1) for the notional firm.
- To assess whether Wessex's PR24 Business Plan is consistent with the notional firm meeting the target credit rating, we have modelled the financial metrics ratings implied under Wessex's Plan and tested whether these are consistent with ratio guidance issued by credit rating agencies. In doing so:
 - We employ our independent financial model, which is aligned with credit rating agency guidance, as they determine company credit worthiness in practice;
 - We use Ofwat's early view of the WACC; and
 - We assume an appropriate level of notional gearing. More specifically, we present three notional gearing scenarios:
 - ▶ We assume an opening level of notional gearing of 66%, which is equal to the average actual gearing of the four firms identified by Ofwat as being notional efficient (SEW, SSC, NES and SWB) in 2022/23, weighted by their RCV in 2022/23.
 - ▶ We assume an opening level of notional gearing of 65%, which is equal to the average actual gearing of the two WASCs identified by Ofwat as being notional efficient (NES and SWB) in 2022/23, weighted by their RCV in 2022/23.
 - ▶ We assume an opening level of notional gearing of 60%, which is equal to the level of notional gearing set by the CMA at PR19 Redeterminations.
- As detailed further on the subsequent slides, under all three notional gearing scenarios, we find that the **financial metrics implied under Wessex's PR24 Business Plan are not consistent with securing the target investment grade rating** (using Ofwat's early view of the WACC). This implies that, all else equal, the notional firm would not be able to raise finance on reasonable terms at PR24. In other words, **Wessex's PR24 Business Plan would not be notionally financeable on the debt-side.**

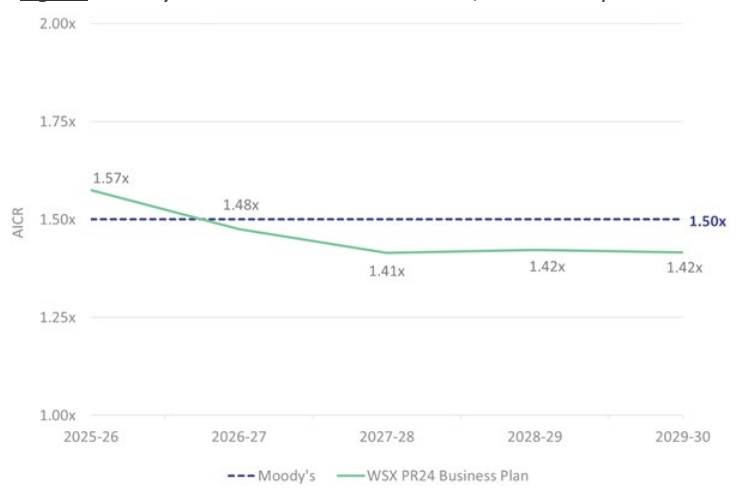
OUR FINANCIAL MODEL IS ALIGNED WITH CREDIT RATING AGENCY GUIDANCE, AS THEY DETERMINE COMPANY CREDIT WORTHINESS IN PRACTICE.

- It is important to align with credit rating agencies' guidance when assessing financeability, as they determine company credit worthiness in practice.
- We have therefore developed an independent EI financial model, based on the rating methodology employed by a leading credit rating agency. We employ Moody's rating methodology, as it provides the most transparency regarding its approach to determining credit ratings for companies in the water sector.
- More specifically, as illustrated in the adjacent diagram, our model computes financial metrics based on Moody's calculation approach (which is different from Ofwat's) and then applies Moody's metric thresholds to assess whether the target credit rating has been met.



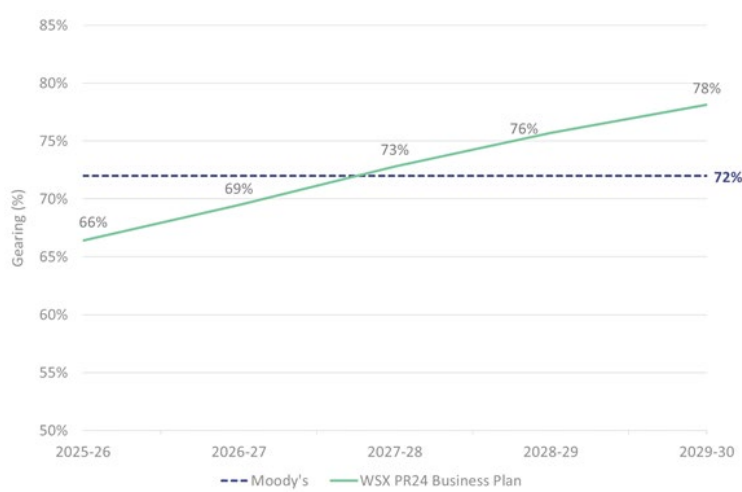
MODELLING RESULTS – 66% NOTIONAL GEARING SCENARIO.

Figure: Moody's AICR under Wessex's Plan, over PR24 period



Source: Economic Insight analysis.

Figure: Moody's gearing under Wessex's Plan, over PR24 period



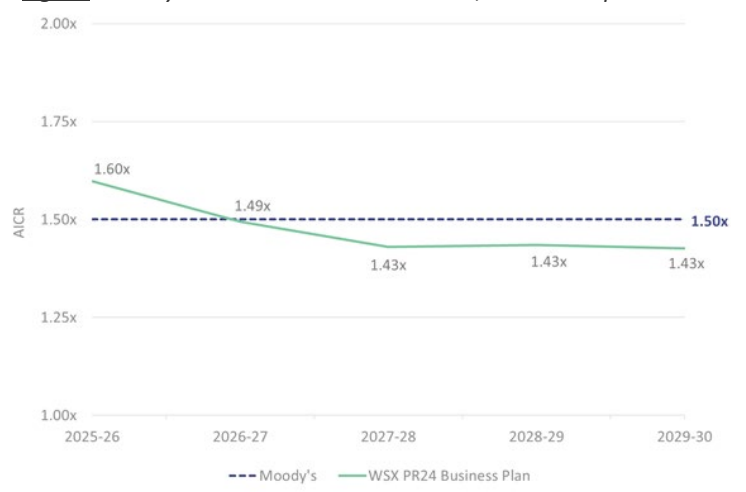
Source: Economic Insight analysis.

- Ofwat defines the target investment grade for the notional firm as BBB+/Baa1. Ratio guidance issued by Moody's for the UK water sector indicates that the thresholds it requires for a Baa1 credit rating are as follows:
 - AICR 1.5x-1.7x; and
 - Gearing 65%-72%.*
- The adjacent figures present Moody's AICR and gearing metrics under Wessex's Plan over the PR24 period, based on a notional gearing assumption of 66%. As explained on slide 44, this is equal to the average actual gearing of the four firms identified by Ofwat as being notional efficient (SEW, SSC, NES and SWB) in 2022/23, weighted by their RCV in 2022/23.
- As can be seen, the financial metrics implied under Wessex's PR24 Business Plan are **not consistent with securing the target investment grade rating of BBB+/Baa1 over PR24**, when using a notional gearing assumption of 66% and Ofwat's early view of the WACC.

*'Regulated water utilities – UK: Regulator's proposals undermine the stability and predictability of the regime.' Moody's (May 2018).

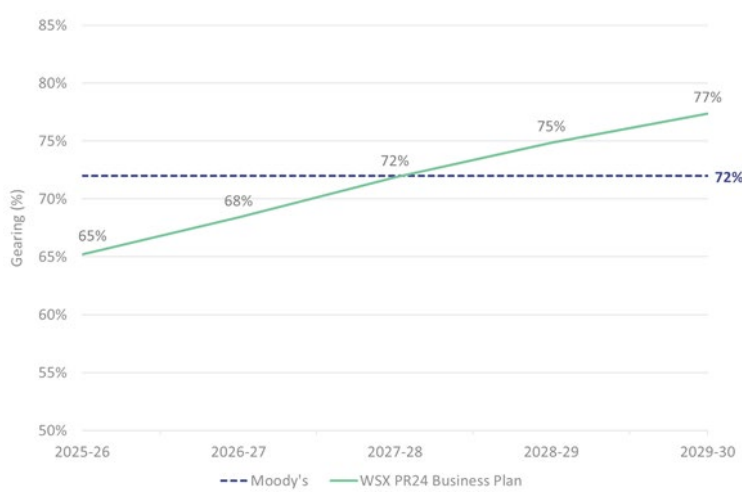
MODELLING RESULTS – 65% NOTIONAL GEARING SCENARIO.

Figure: Moody's AICR under Wessex's Plan, over PR24 period



Source: Economic Insight analysis.

Figure: Moody's gearing under Wessex's Plan, over PR24 period

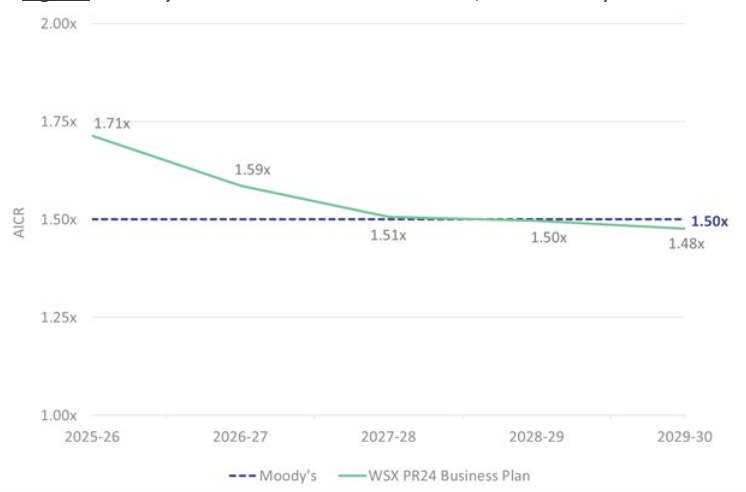


Source: Economic Insight analysis.

- The adjacent figures present Moody's AICR and gearing metrics under Wessex's Plan over the PR24 period, based on a notional gearing assumption of 65%. As explained on slide 44, this is equal to the average actual gearing of the two WASCs identified by Ofwat as being notional efficient (NES and SWB) in 2022/23, weighted by their RCV in 2022/23.
- As can be seen, the financial metrics implied under Wessex's PR24 Business Plan are **not consistent with securing the target investment grade rating of BBB+/Baa1 over PR24**, when using a notional gearing assumption of 65% and Ofwat's early view of the WACC.

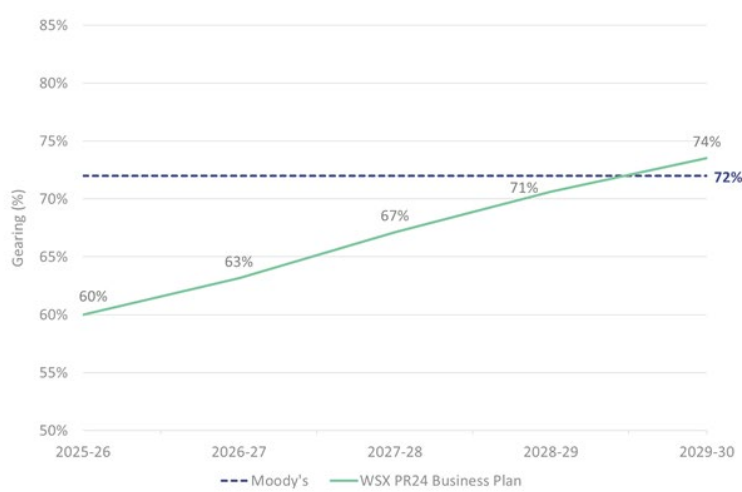
MODELLING RESULTS – 60% NOTIONAL GEARING SCENARIO.

Figure: Moody's AICR under Wessex's Plan, over PR24 period



Source: Economic Insight analysis.

Figure: Moody's gearing under Wessex's Plan, over PR24 period



Source: Economic Insight analysis.

- The adjacent figures present Moody's AICR and gearing metrics under Wessex's Plan over the PR24 period, based on a notional gearing assumption of 60%. As explained on slide 44, this is equal to the level of notional gearing set by the CMA at PR19 Redeterminations.
- As can be seen, the financial metrics implied under Wessex's PR24 Business Plan are **not consistent with securing the target investment grade rating of BBB+/Baa1 over PR24**, when using a notional gearing assumption of 60% and Ofwat's early view of the WACC.



Economic Insight Limited

125 Old Broad Street
London
EC2N 1AR
T: +44 207 100 37 46
www.economic-insight.com