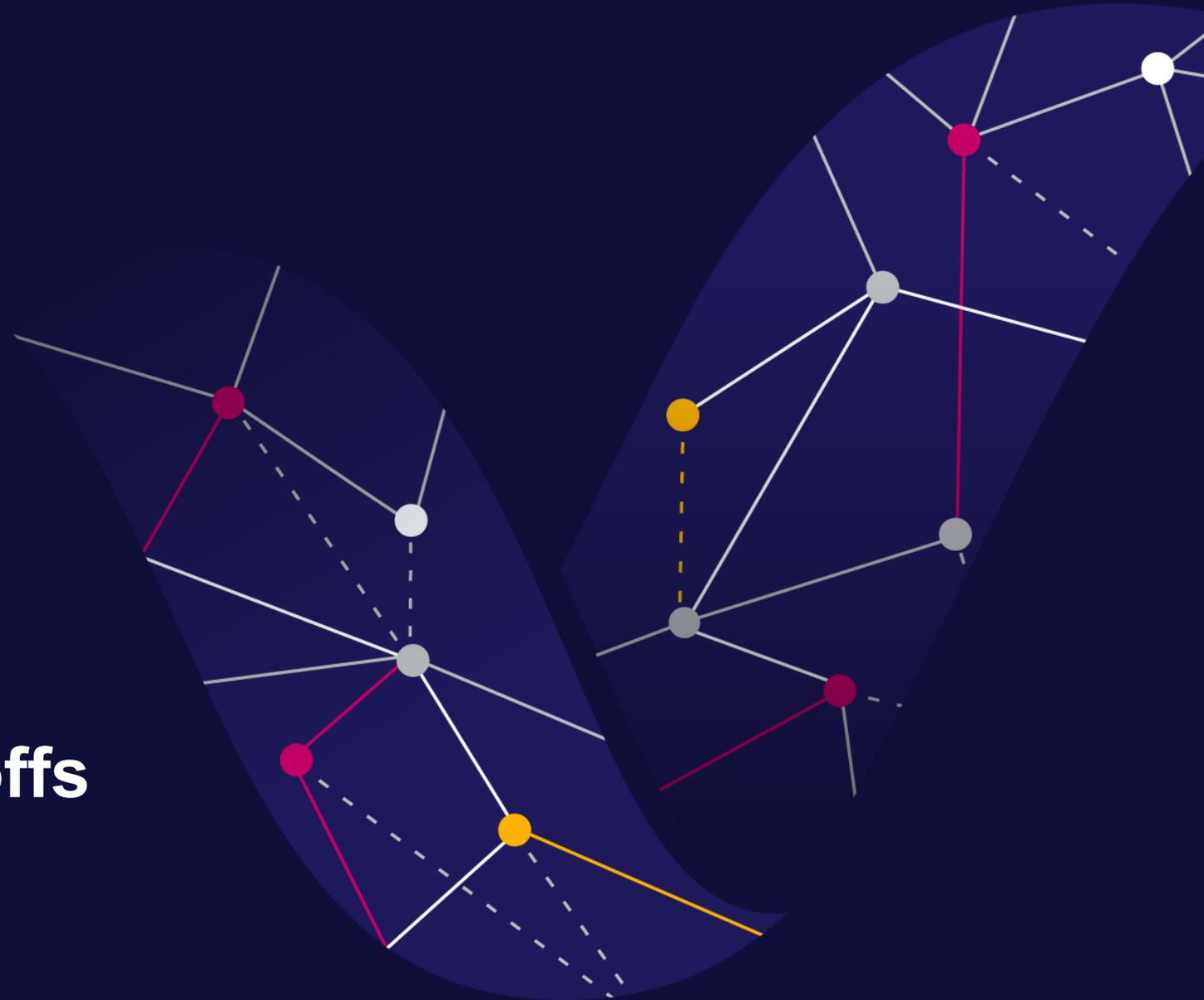




Depreciation: Valuation and intergenerational trade-offs

Roundtable, 18th March 2026

CONFIDENTIAL



In 2026, we will continue to develop VAPRI whilst providing valuation insights through **Infrastructure Asset Intelligence**

Vallorii Price of Risk Model (VAPRI)



Company-specific cost of capital estimates based on granular assessment of risks and diversification mandates

Vallorii Infrastructure Asset Intelligence maps balance sheets against their physical reality



What's on your balance sheet?
Mapping of physical assets & their location



Who are your customers?
Assess the changing social context of your assets



What environment do you operate in?
Assess the changing environmental context of your assets



Cost of Capital Lab

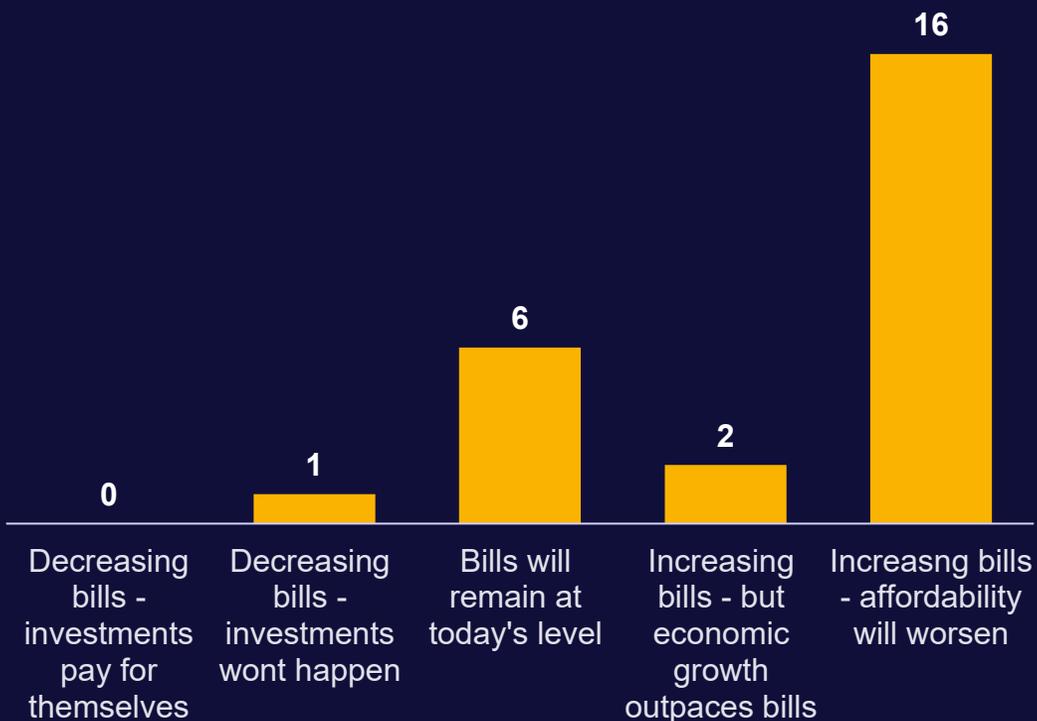
Leverage traditional and modern financial models to generate your own CoC estimates (CAPM, multi-factor model, MARs...)

Research Lab

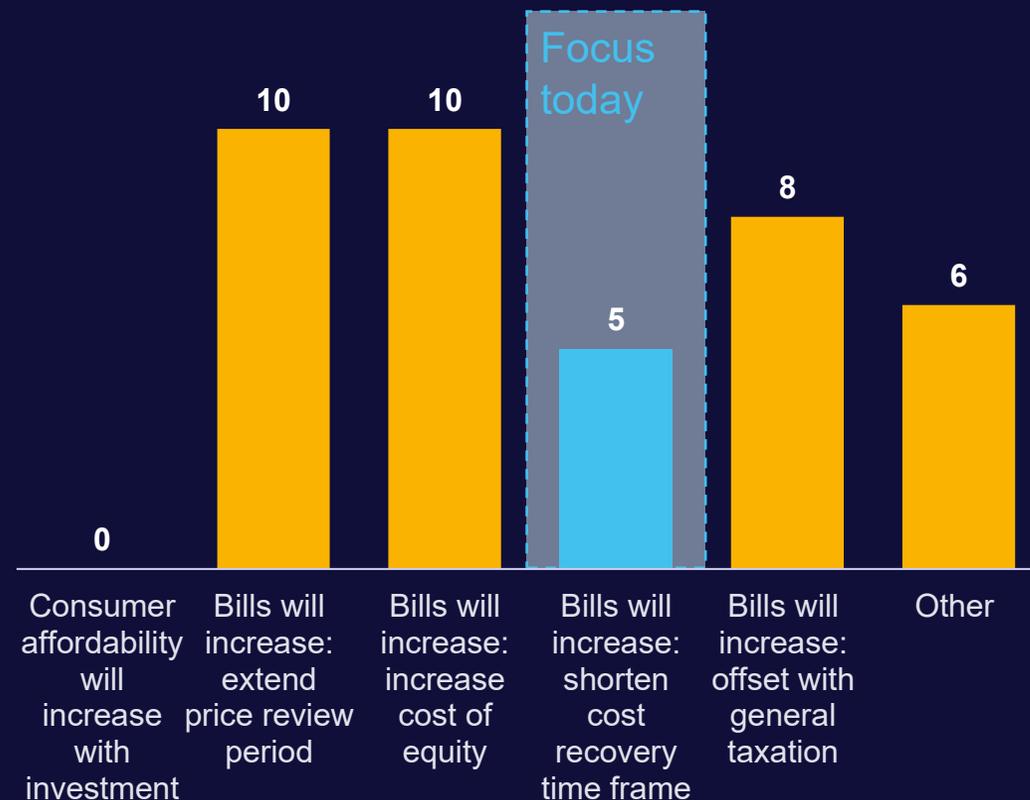
Access exclusive Vallorii publications and materials from previous roundtables

Bills are expected to increase, putting pressure on affordability. Regulation can react, such as by changing depreciation timelines

Will consumer bills across sectors increase or decrease in the next decade?



How can regulators effectively mitigate affordability risks for large capital projects?



Net zero considerations are reshaping depreciation in energy regulation, while water, rail, airports, and telecoms maintain largely stable frameworks

ofgem



Electricity Networks

Reviewing whether existing ~45-year asset lives remain appropriate as network investment accelerates to support net-zero transition

ofgem



Gas Networks

Accelerating depreciation to address declining gas demand and stranded asset risk under net zero

Ofwat



Water + wastewater

PR24 discussion centers on the appropriate RCV run-off rate as water investment needs increase

ORR



Rail

Focus on the declining role of RAB/depreciation in price setting as rail funding becomes increasingly government-driven

Civil Aviation Authority



Airports

Focus on how quickly new investment should be depreciated and recovered from passengers via airport charges

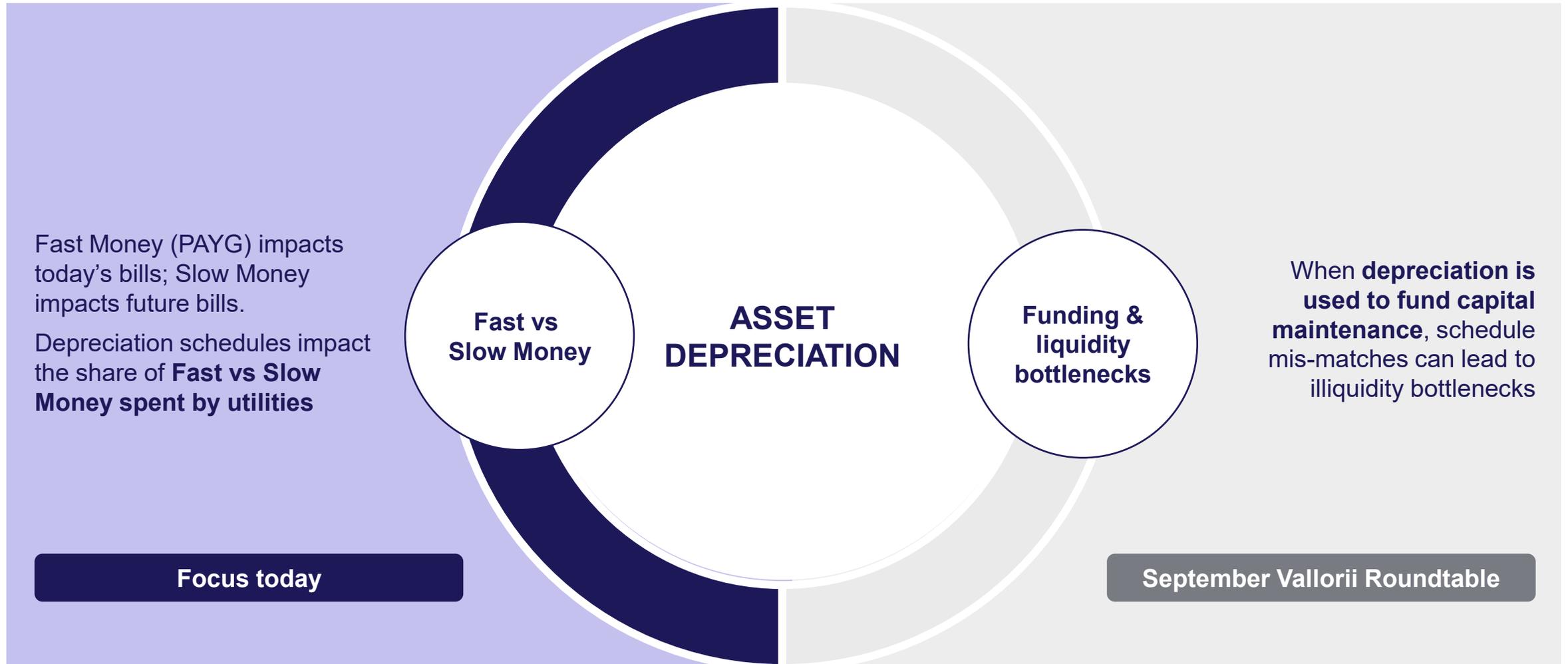
Ofcom



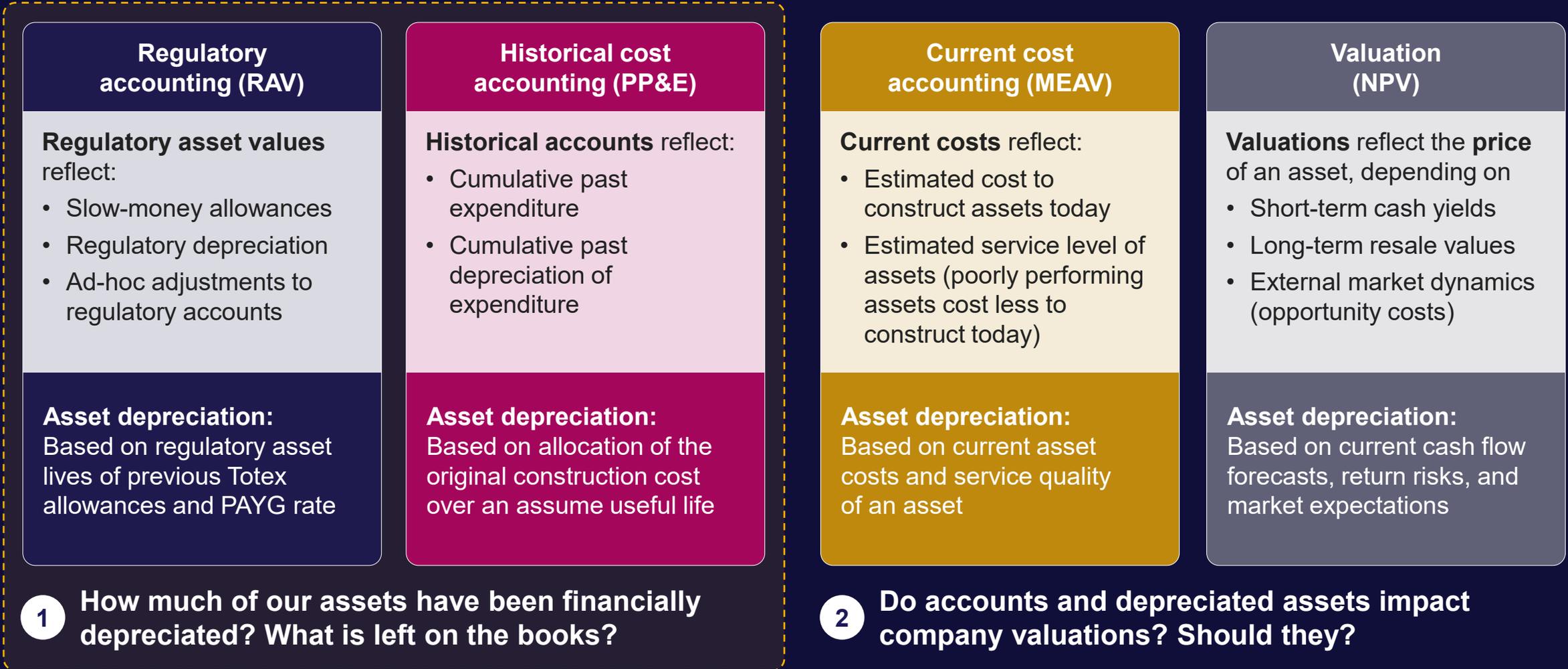
Telecoms

Reviewing cost models and asset lives to support fiber investment and competitive broadband markets

Today, we discuss the **long-term intergenerational trade-offs** impacted by depreciation. In September, we will cover short-term illiquidity implications



Accounting recap: Regulatory asset values, historical cost accounting, current cost accounting, and valuation can lead to materially different company values



Agenda

Vallorii Infrastructure Asset Intelligence: AI-enabled mapping of physical and financial infrastructure assets

1 Regulated accounts in UK are much higher than in some EU comparators → increased bills

- £3,000-£3,400 utility PP&E per citizen in UK and Belgium (power, gas, rail) exceeds EU comparators by 60-110%
- RAV differences drive £40-48 higher annual bills in UK (gas and electricity)

RAV per capita in Wales is much larger than in London → local affordability pressures in Wales

- £4,300 RAV per capita in Wales exceeds London by 60% due to higher costs and environmental compliance in waste/water

2 Modern Equivalent Asset Values are up to >10x RAV → companies do not earn returns on 90% of the assets they operate and maintain

- Returns based on RAV while maintenance reflects MEAV: returns are not earned on maintaining legacy assets
- Economic incentives get distorted by accounting, impacting valuations as investors rely on accounting metrics

UK RAV / PP&E per capita exceed £1k in electricity and £500 in gas networks, compared to £630 in Italian electricity and £230 in Spanish gas

■ Total PPE per capita ■ Total RAV per capita

Electricity

Transmission and distribution asset values, £ per capita

Gas

Transmission and distribution asset values, £ per capita

Rail

Asset values, £ per capita

Water & Wastewater

Asset values, £ per capita



Source: RAV and PPE data from company annual reports/financial statements and applicable regulatory disclosures. Asset values are expressed on a per-capita basis. Electricity and gas reflect the sum of onshore transmission and distribution assets; water reflects total water and wastewater assets; and rail reflects total rail PPE. All values are divided by the relevant population.

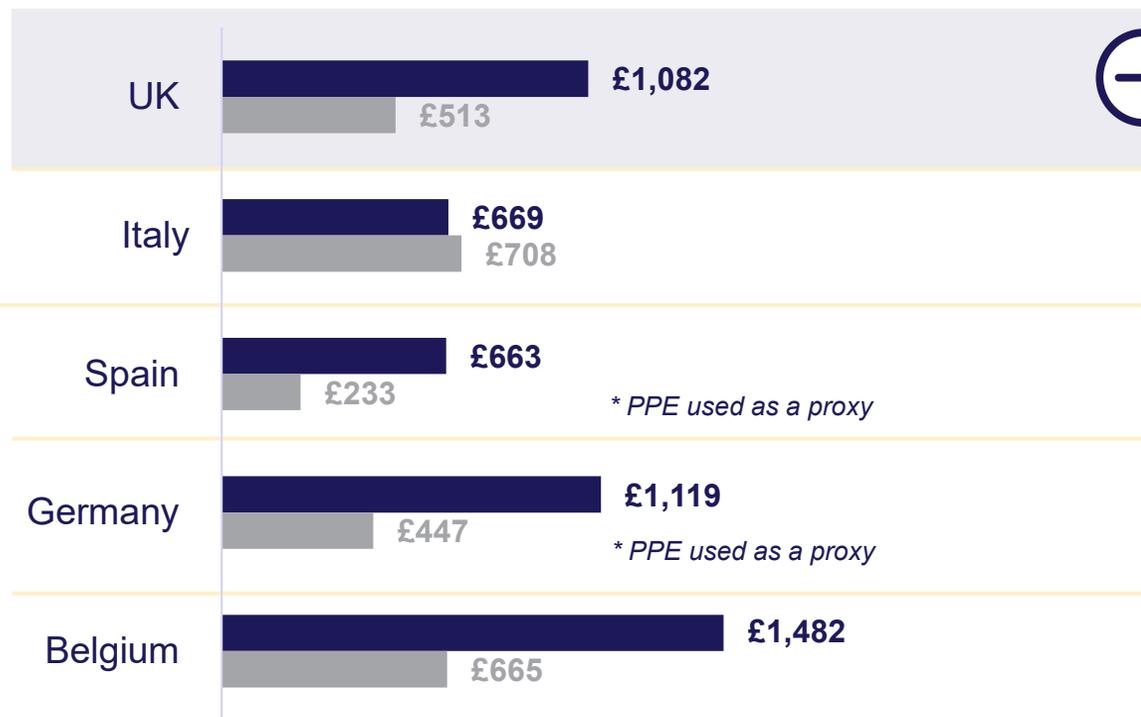
Notes: For Spain and Germany, gas values are adjusted to reflect the estimated share of the population connected to the gas network, rather than total population.

Investors require a return on RAV. RAV return adds £60 to the UK electricity bill (~£30 in Italy/Spain) and £28 to the UK gas bill (~£10-20 in Germany/Spain)

■ Electricity Networks ■ Gas Networks

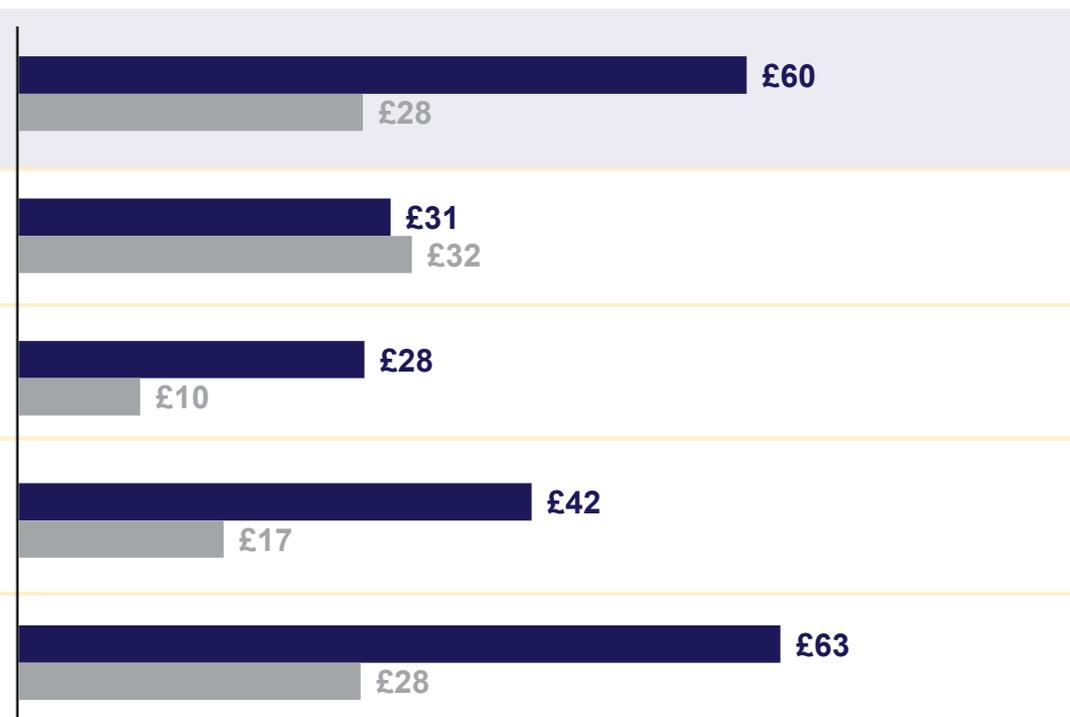
RAV per capita, Electricity & gas networks

Transmission and distribution RAV, £ per capita



Return on RAV per capita, Electricity & gas networks

Calculated using country and sector specific notional gearing, £ per capita



Source: Notional gearing assumptions based on regulatory methodologies (Ofgem RIIO-3 for the UK, ARERA TIWACC for Italy, CNMC WACC framework for Spain, and VREG tariff methodology for Belgium; Germany benchmarked to European regulatory practice). Bill impacts calculated by applying regulatory gearing to split RAV into debt and equity, applying cost of equity (5–6%) and cost of debt adjusted to current sovereign risk-free rate. For Spain and Germany, PPE is used as a proxy for RAV per capita

POLL #1: Should electricity/gas depreciation be accelerated to reduce UK RAV per capita, into line with international comparators? (e.g. Ofgem accelerating gas depreciation decreases RAV over time)

Yes: Accelerated depreciation to reduce RAV over time (reduce future bills)

UK regulators should increase depreciation to lower RAV (e.g. gas discussion)

No: Maintain current depreciation profiles

Current depreciation levels strike the right balance between asset recovery and customer bills

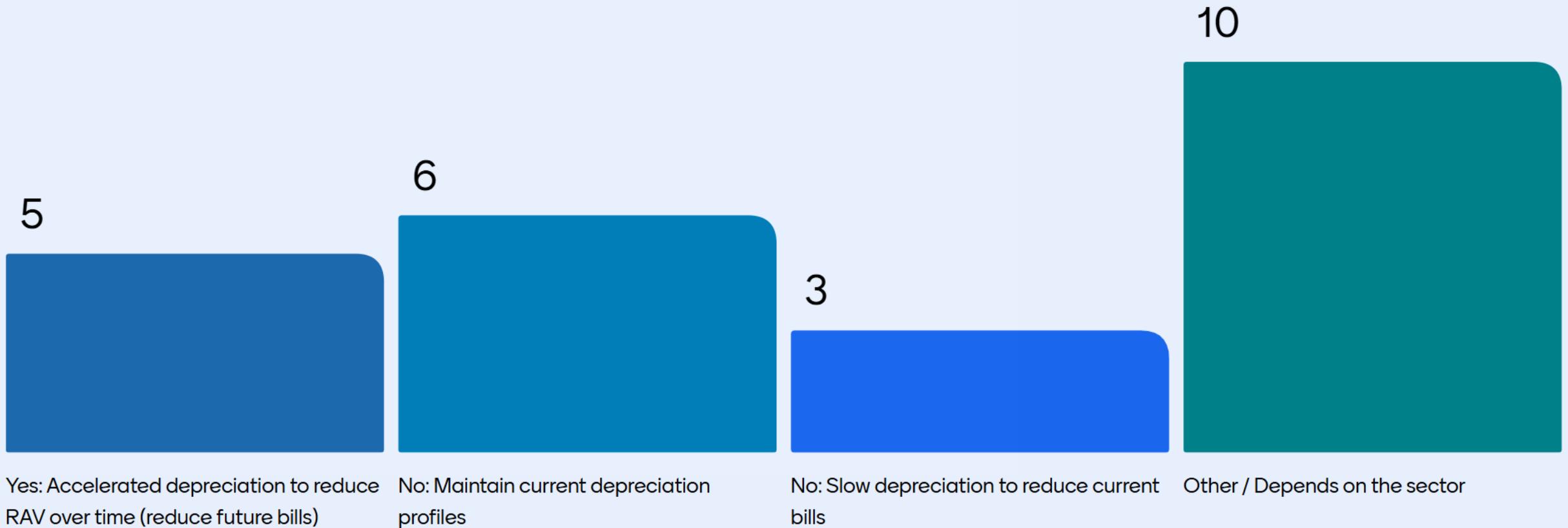
No: Slow depreciation to reduce current bills

UK regulators should decrease depreciation to lower current bills and increase RAV (e.g. electricity discussion)

Other / Depends on the sector

Get ready for a follow-up

Should electricity/gas depreciation be accelerated to reduce UK RAV per capita, into line with international comparators?



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Vallorii Asset Intelligence maps the physical reality of assets against their balance sheet

A detailed perspective on your **Balance Sheet**



What's on your balance sheet?

Mapping of physical assets & their location



Who are your customers?

Assess the changing social context of your assets



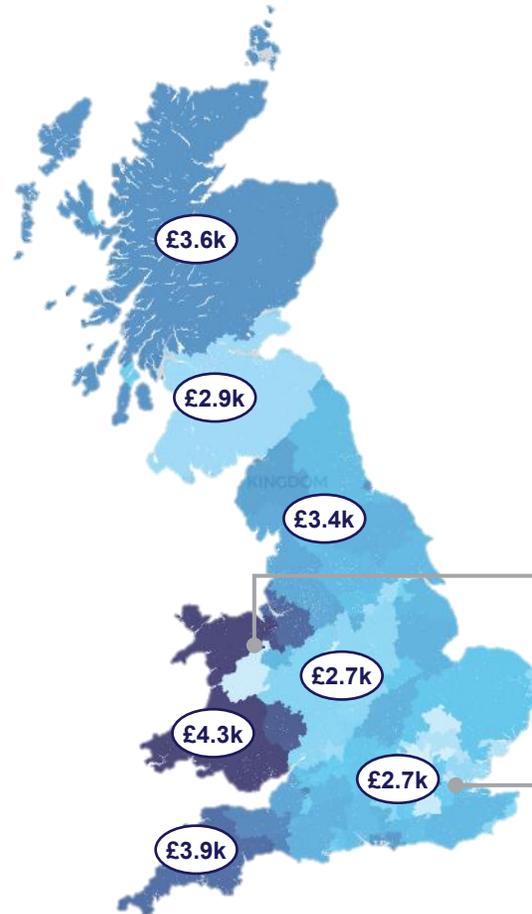
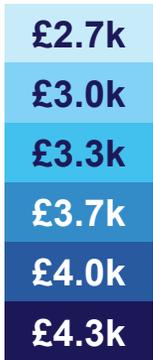
What environment do you operate in?

Assess the changing environmental context of your assets

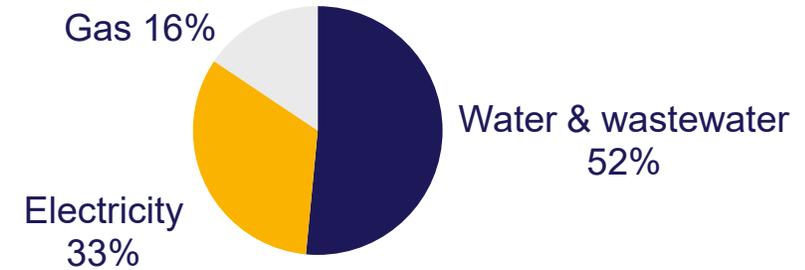
RAV per capita varies significantly by region: £2.7k in London & Birmingham compared to £4.3k in Wales

Includes **water + wastewater, electricity transmission + distribution, and gas transmission + distribution**

RAV per capita



RAV by sector



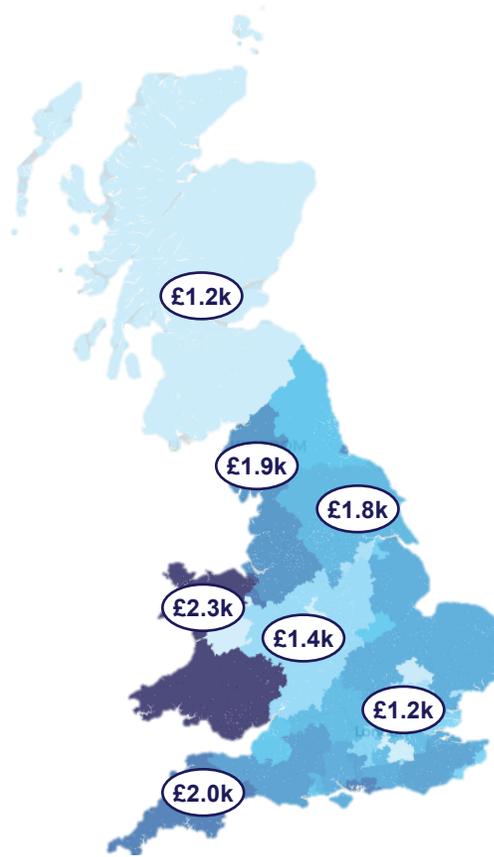
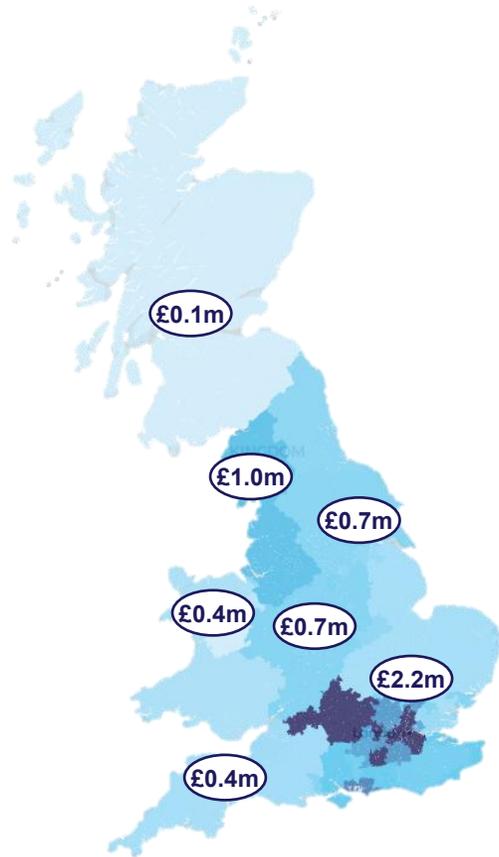
- **Water + wastewater > 50%** of total RAV in some LSOAs and are the main drivers of regional differences
- **Low RAV/km²**: assets spread over large rural areas with complex geographies + shared by fewer people
- **Water + wastewater** remain the largest RAV components
- **Less network per person**: compact settlement reduces assets required per head

Large cost differences in Water and Wastewater drive regional RAV differences, due to lower population density and higher reg. compliance

Water and wastewater account for **52%** of total UK utility RAV, and are a key driver of the regional differences

RAV per km², Water + wastewater

RAV per capita, Water + wastewater



- 

Population density drives capital intensity:
Low density regions increase costs in water & wastewater networks
- 

Source type shapes bulk infrastructure need:
Surface water reliance (e.g. 95% for Welsh Water) requires greater storage, transfer, and treatment capacity
- 

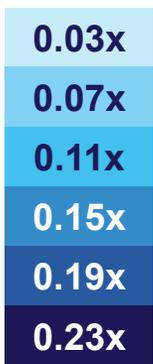
Regulatory compliance amplifies the gap:
Storm overflow spend runs ~5x higher per head in Wales vs. London

Source: Vallorri Asset Intelligence analysis; company RAV data from regulatory financial reports (2025); Population data from Office of National Statistics (ONS) and National Records of Scotland (NRS), as of 2024. Scottish Water RAV is estimated using their net debt (2025) and assumed 60% gearing.

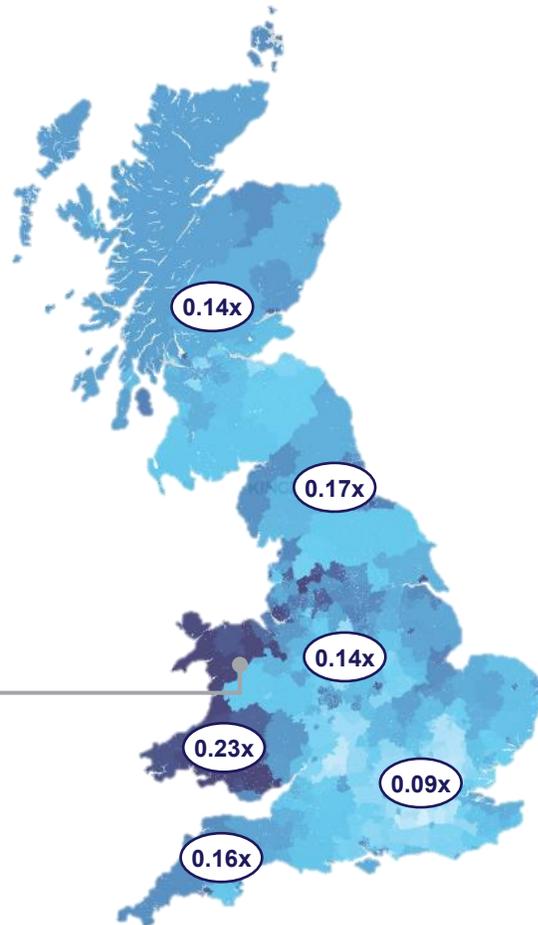
As a result, the RAV-to-income ratio is ~3x higher in Wales than London, with affordability stress concentrated in areas where it is least affordable

Covers water + wastewater, electricity transmission + distribution, and gas transmission + distribution

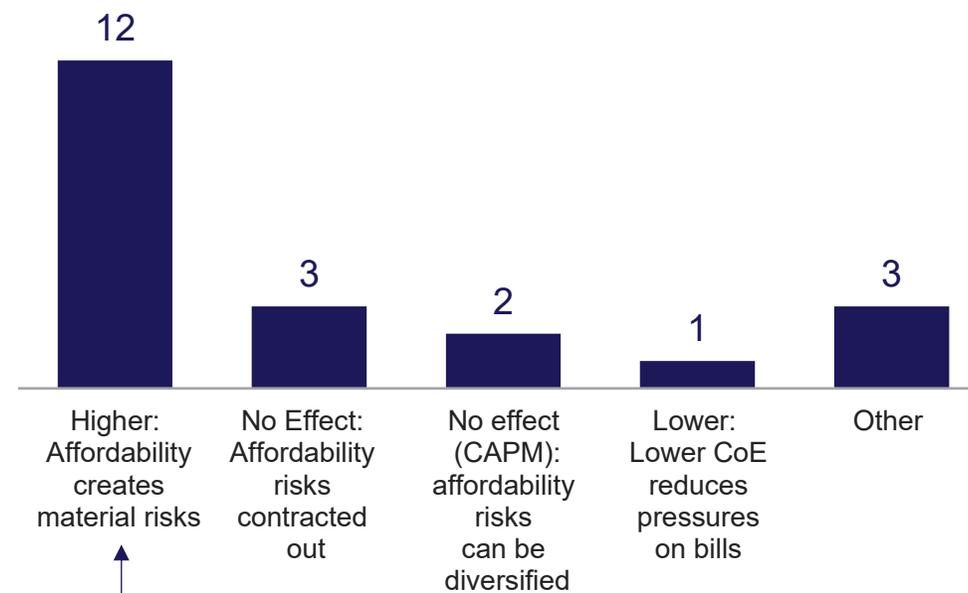
RAV per income



- 60% higher RAV/capita than London
- 38% lower income/capita than London



How should consumer affordability be reflected in the CoE for new electricity infrastructure investments?



Consensus at the January roundtable that affordability creates material risks that increase the CoE

Source: Vallorri Asset Intelligence analysis; company RAV data from regulatory financial reports (2025); Gross Disposable Household Income (2023) from ONS.

POLL #2: Should regional affordability risks (high local costs, low local income) be mitigated?

Yes: Cross-subsidisation (bills or taxes)

Low cost / high income regions should cross-subsidise costs elsewhere

Yes: Reduction in costs and service quality

Quality standards are too stringent and can be reduced locally to reduce costs (e.g. supervisory model)

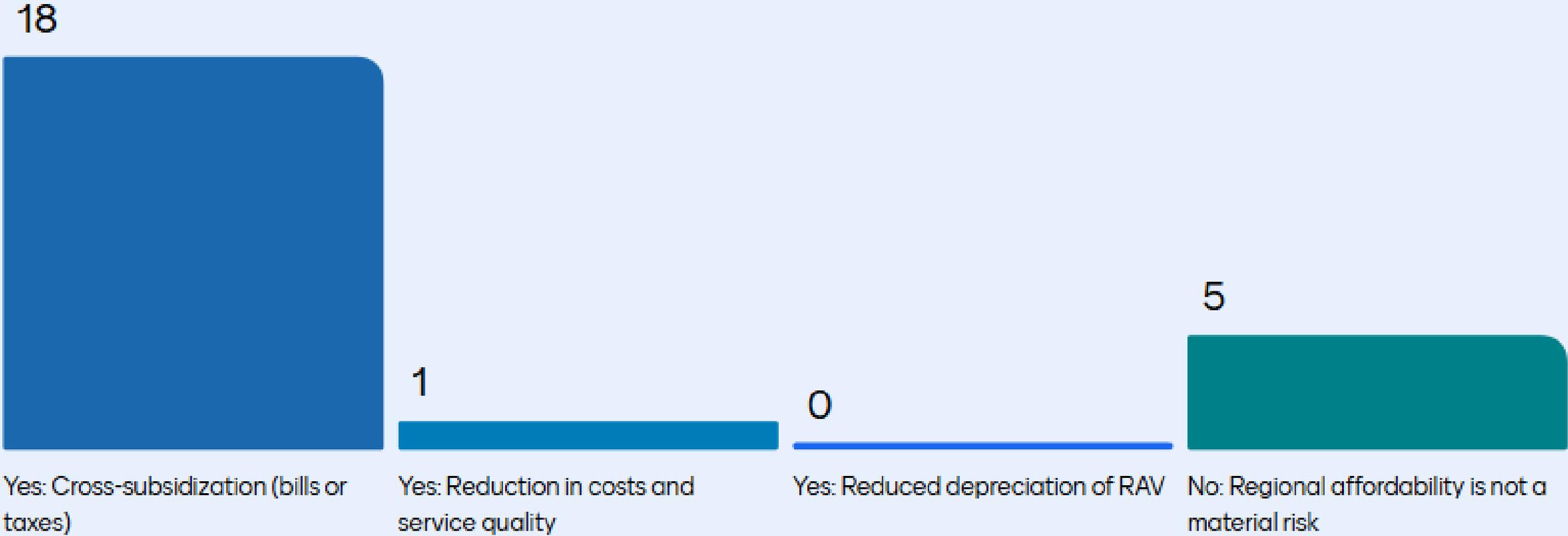
Yes: Reduced depreciation of RAV

Reduce annual depreciation to reduce current bills

No: regional affordability is not a material risk

Get ready for a follow-up

Should regional affordability risks (high local costs, low local income) be mitigated?



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Accounting recap: Regulatory asset values, historical cost accounting, current cost accounting, and valuation can lead to materially different company values

Regulatory accounting (RAV)

Regulatory asset values reflect:

- Slow-money allowances
- Regulatory depreciation
- Ad-hoc adjustments to regulatory accounts

Asset depreciation:
Based on regulatory asset lives of previous Totex allowances and PAYG rate

Historical cost accounting (PP&E)

Historical accounts reflect:

- Cumulative past expenditure
- Cumulative past depreciation of expenditure

Asset depreciation:
Based on allocation of the original construction cost over an assume useful life

Current cost accounting (MEAV)

Current costs reflect:

- Estimated cost to construct assets today
- Estimated service level of assets (poorly performing assets cost less to construct today)

Asset depreciation:
Based on current asset costs and service quality of an asset

Valuation (NPV)

Valuations reflect the **price** of an asset, depending on

- Short-term cash yields
- Long-term resale values
- External market dynamics (opportunity costs)

Asset depreciation:
Based on current cash flow forecasts, return risks, and market expectations

1 How much of our assets have been financially depreciated? What is left on the books?

2 Do accounts and depreciated assets impact company valuations? Should they?

Thames Water example: If it would cost £196bn to rebuild Thames' assets today, why is the market only willing to pay £11bn?

Case example: Thames Water

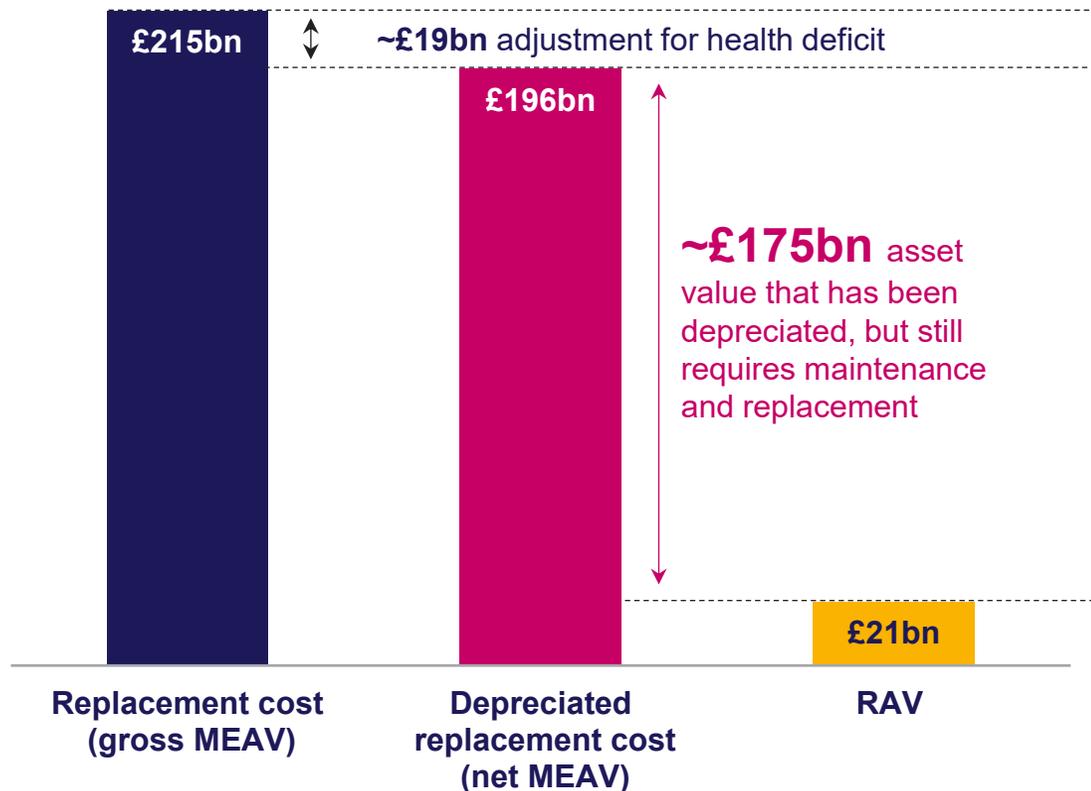
Regulatory accounting value (RAV)	Historical cost accounting (PP&E)	Current cost accounting (MEAV)	Valuation (NPV)
~£21bn	~£21bn	~£196bn	~£11bn
 <p>Ofwat reported RAV</p> <p>(March 2025)</p>	 <p>Property, plant and equipment from balance sheet</p> <p>(March 2025)</p>	 <p>Gross Modern Equivalent Asset Value = ~£215bn (Discount applied to account for asset health deficit)</p> <p>(Thames Asset Health Deficit Report, 2023)</p>	 <p>Restructuring-implied enterprise value of ~£11bn (reflects consolidated borrowings of ~£17bn, less ~£6bn Class A write-off)</p> <p>(Class A restructuring update, 2026)</p>

Source: Thames Water Utilities Ltd Annual Report & Accounts 2024/25 (IFRS PPE at 31 March 2025; consolidated borrowings); Ofwat RFPR reporting tables (RAV); Thames Water Asset Health Deficit Report (GMEAV, 2022/23 prices; uplifted using ONS CPIH); Class A bondholder restructuring proposal (Mar 2026) for implied enterprise value.

Thames Water example: 88% of MEAV depreciated before end of its operational life

Balance sheet view

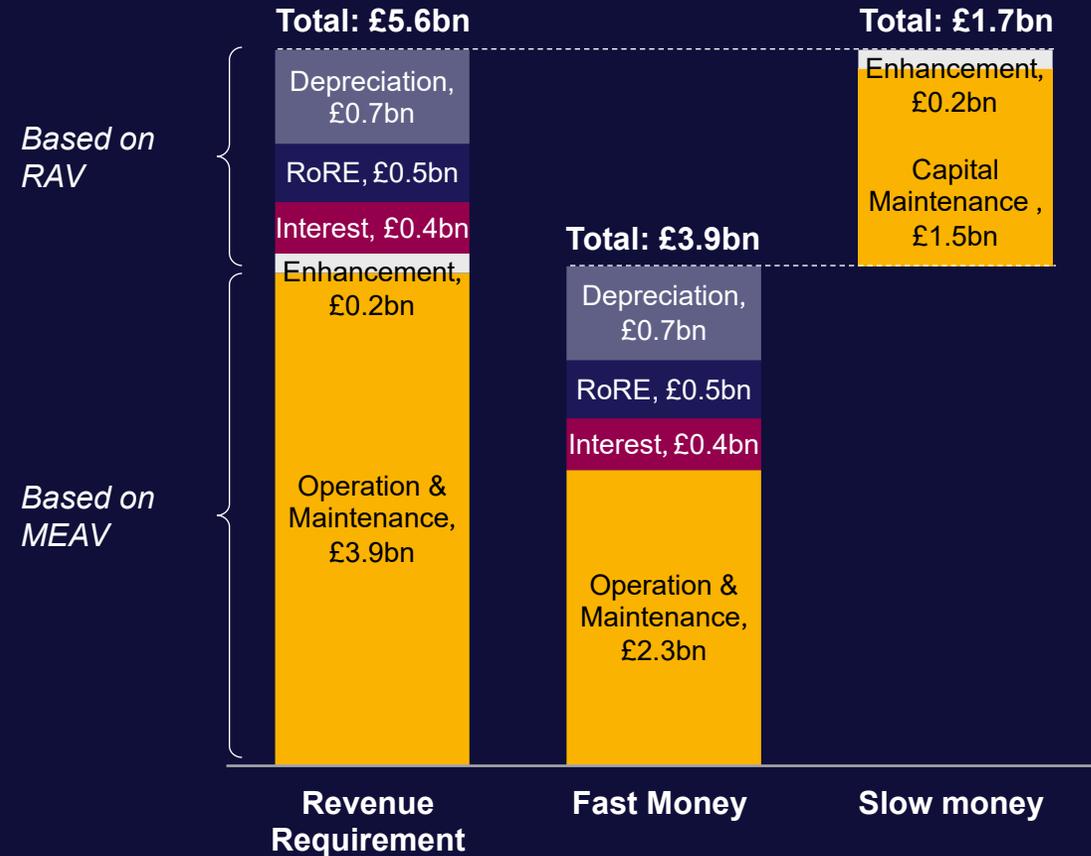
Physical asset base is 10x larger than its RAV



Source: Thames Water asset valuation estimates based on company disclosures and regulatory data (see sources in Slide 22)

RAV understates the infrastructure being maintained: Maintenance at ~20% of RAV only represents ~2% of physical asset base

Income statement view (excl. tax, approximate)

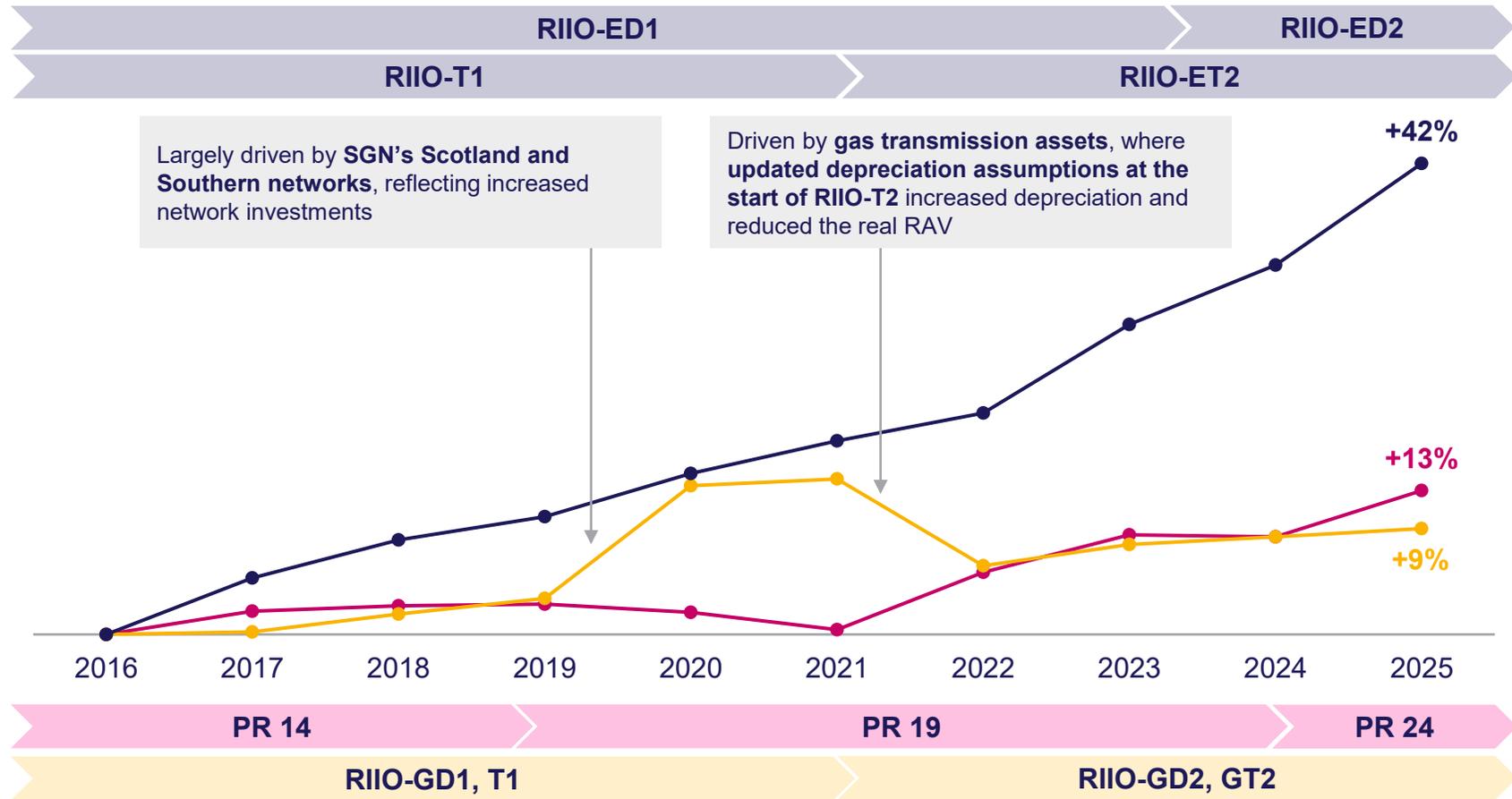


Assumptions: Cost of capital and gearing based on Ofwat PR24 parameters. RCV run-off assumed at 3.5%. Operating and maintenance costs assumed to be 2.2% of MEAV and enhancement 0.1% of MEAV, with ~100% PAYG treatment of maintenance

The (real) RAV has grown steadily by 1-5% annually across sectors. This reflects the fact that TOTEX is driven by >10x MEAV.

RAV growth in UK infrastructure

Real 2025 prices, indexed to 2016



Electricity
 3.9% real CAGR since 2016
 Large growth in Electricity in part driven by Net Zero investments

Water & Wastewater
 1.3% real CAGR since 2016

Gas
 1.0% real CAGR since 2016

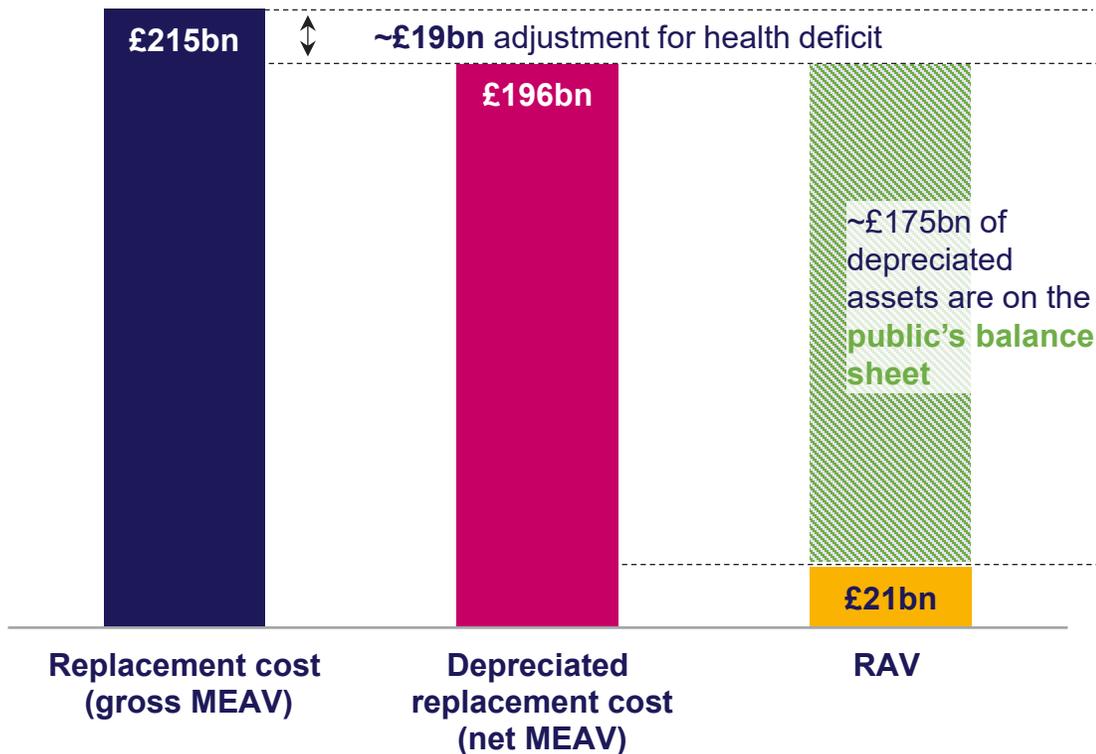
GDP: 0.8% real CAGR since 2016

Source: Vallorri Regulatory Database Lab. Electricity and Gas contain both transmission and distribution assets. Water & Wastewater is excluding Scottish Water and smaller network operators. Gas Networks is excluding Northern Gas Networks. Electricity distribution is excluding Southern Electric Power Distribution, Scottish Hydro Electric Power Distribution, and Northern Powergrid. Real asset values calculated using CPIH inflation index

TW example: £175bn of depreciated assets are “owned” by the public

WHAT IF the depreciated MEAV was on the public’s balance sheet? ...

Physical asset base is 10x larger than its RAV

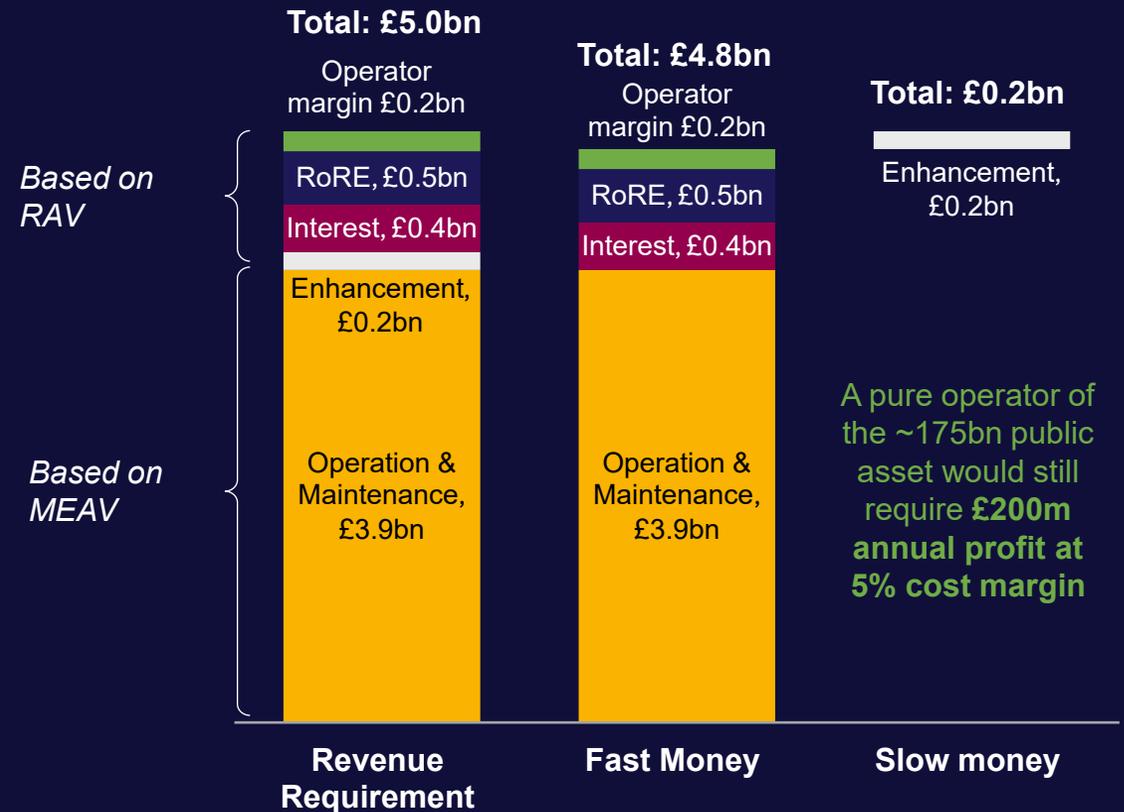


Source: Thames Water asset valuation estimates based on company disclosures and regulatory data (see sources in Slide 22). Estimated TOTEX based on Thames Water Utilities Ltd Annual Results for the year to 31 March 2025

A utility operating this public asset would require ~£200m more profit margin but ~£700m less in depreciation

... annual revenue requirement reduces to £5bn, including £200m of operator profit

*excl tax



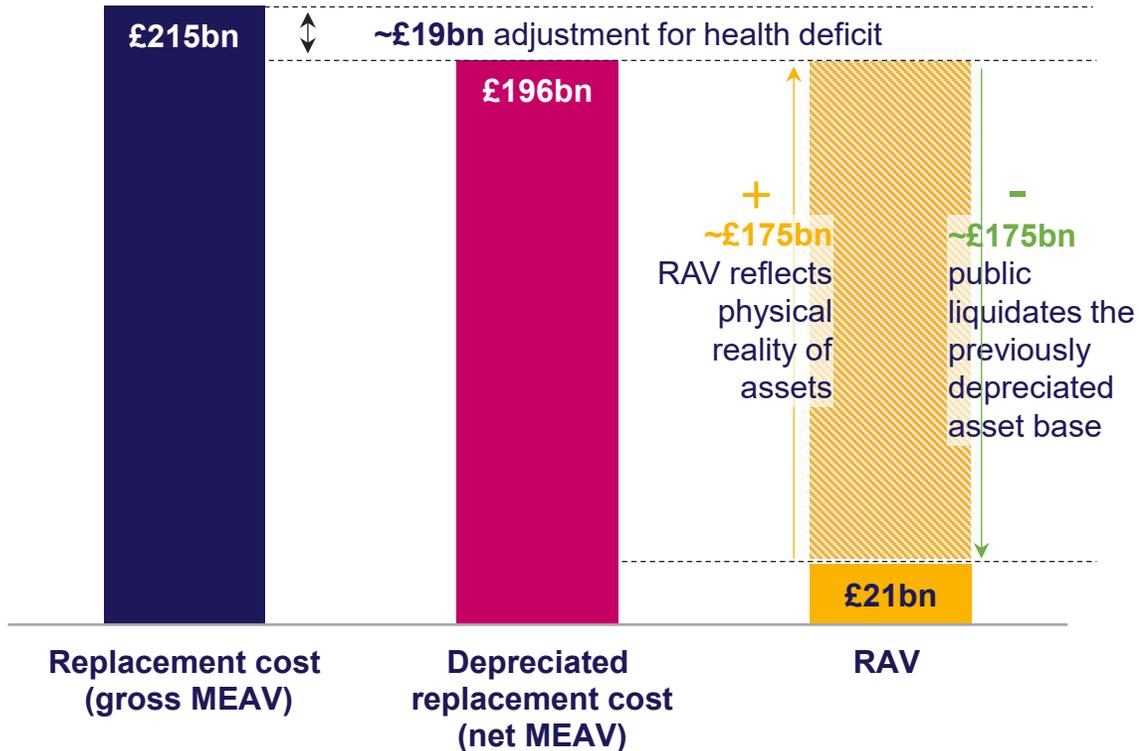
Assumptions: Cost of capital and gearing based on Ofwat PR24 parameters. Operating and maintenance costs assumed to be 2.2% of MEAV and enhancement 0.1% of MEAV, with ~100% PAYG treatment of maintenance



A Thatcher moment: What if the public sold the £175bn of depreciated assets?

WHAT IF the utility balance sheet reflected the physical asset base? ...

RAV is assumed to reflect the full physical asset base

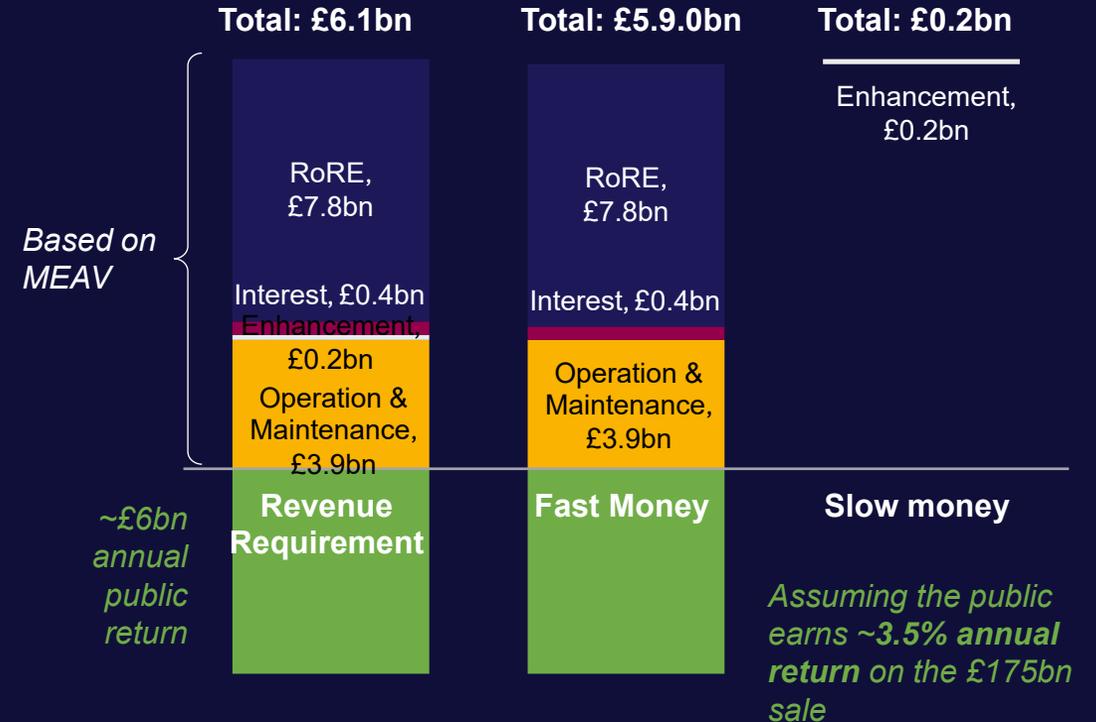


Source: Thames Water asset valuation estimates based on company disclosures and regulatory data (see sources in Slide 22)

Investors would require £7.8bn annual RoE, but the public receives an initial ~£175bn

... the income statement would be reset towards the RoE of the asset owner & operator

*excl tax



Assumptions: Cost of capital and gearing based on Ofwat PR24 parameters. Operating and maintenance costs assumed to be 2.2% of MEAV and enhancement 0.1% of MEAV, with ~100% PAYG treatment of maintenance

POLL #3: Do depreciated assets (excess MEAV) impact an investor's valuation of regulated utilities? (gas, electricity, water, rail)

No: Only RAV matters for valuations

Depreciated assets do not impact value of RAV and neither should they

No: Investors under-estimate the importance of MEAV

Investors should account for MEAV but don't; assets are structurally mispriced

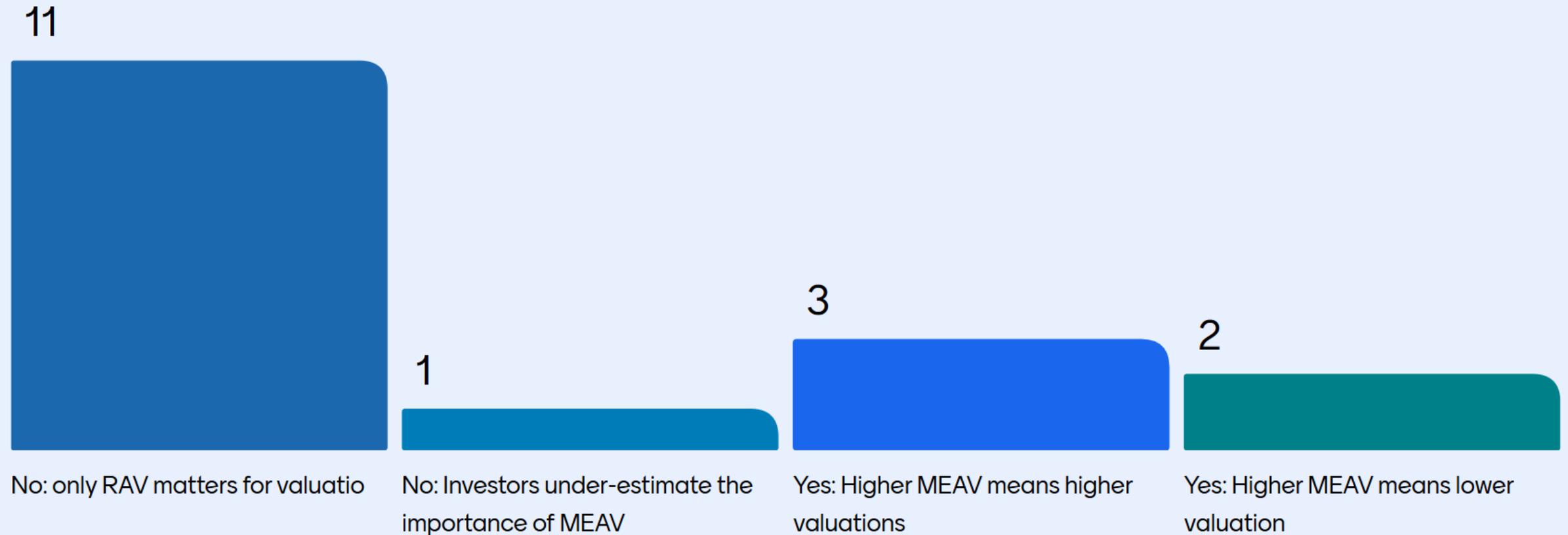
Yes: Higher MEAV means higher valuations

Large assets provide more value to consumers, increasing valuations

Yes: Higher MEAV means lower valuations

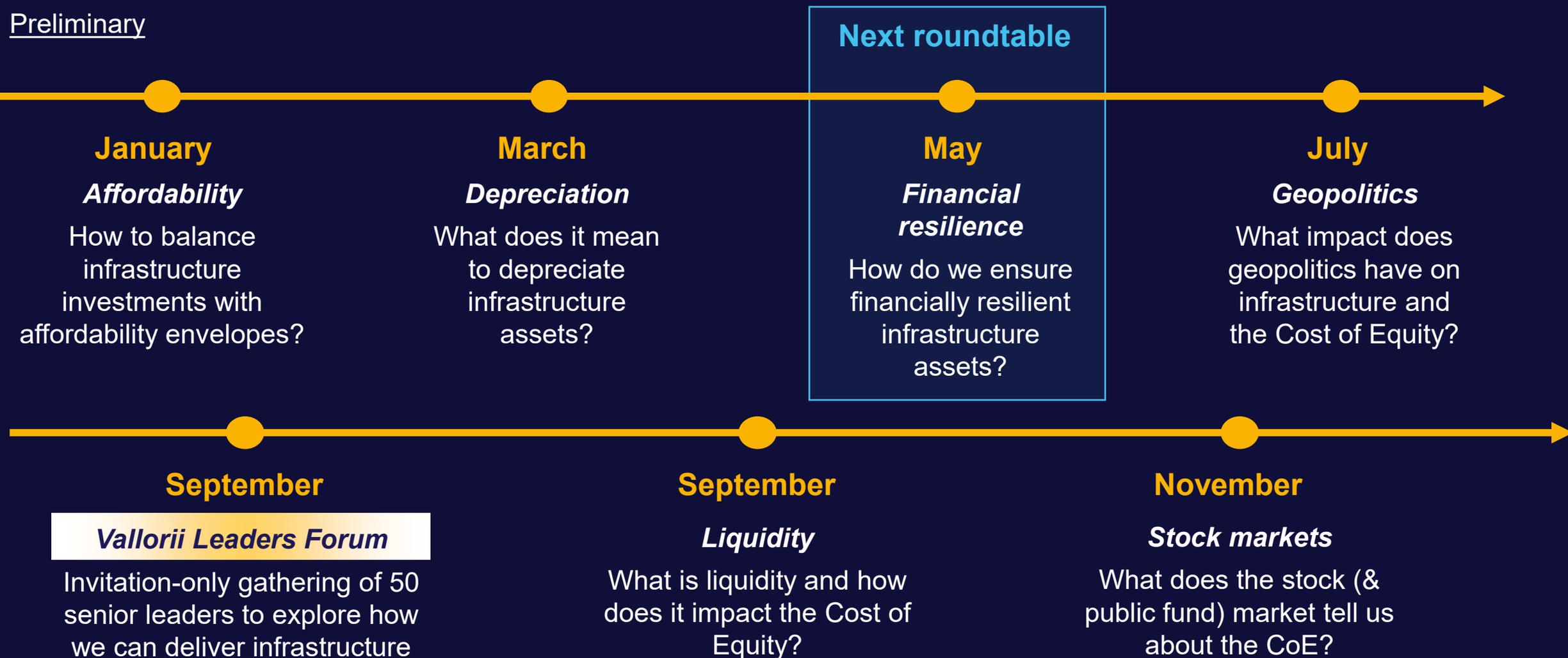
Utilities are responsible for MEAV, but only RAV is compensated

Do depreciated assets (excess MEAV) impact an investor's valuation of regulated utilities? (gas, electricity, water, rail)



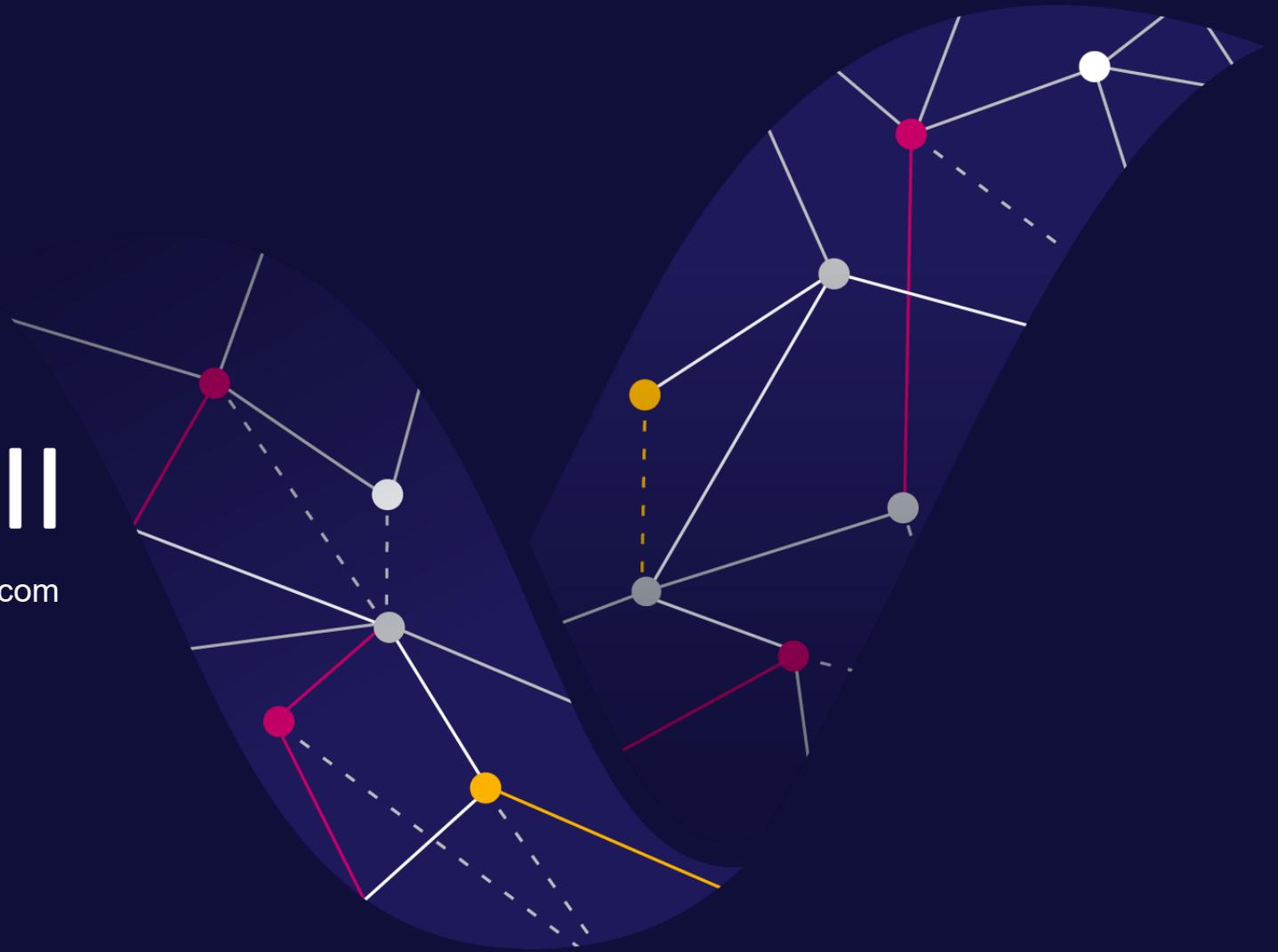
Our outlook for 2026: We build the VAPRI risk catalogue and discuss immediate impacts

Preliminary



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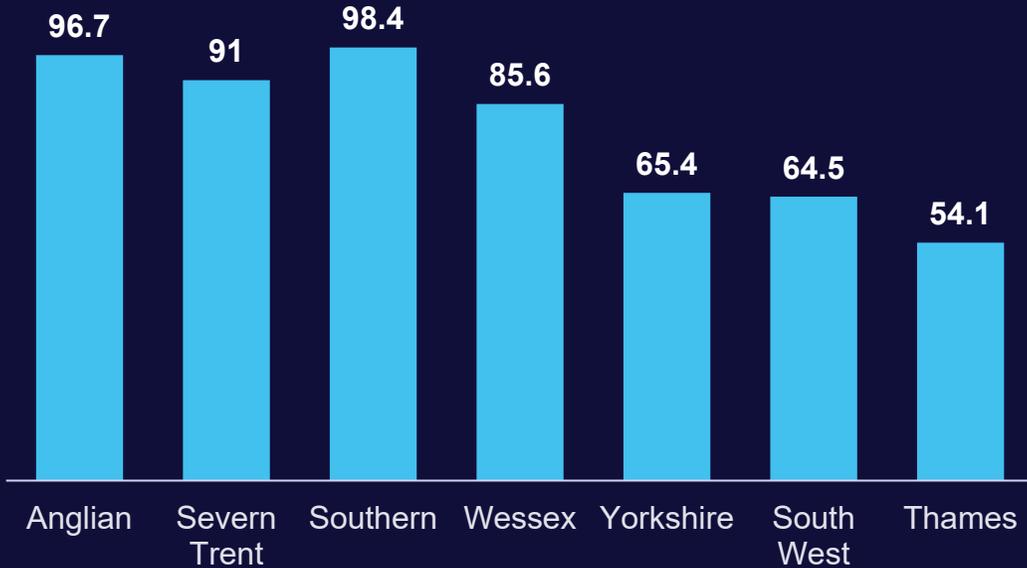
Visit us at Vallorii.com



Regulated accounts do not accurately reflect the state of the underlying assets, leading to discounts up to 50%.

Vallorii Asset Resilience Index

(0-100, with 100 implying that weather events do not cause asset failures)



Do market valuations adequately reward companies with strong asset resilience?

