Review of AER's approach to inflation

Network sector views

Stakeholder Forum, 2 July 2020

Energy Networks Australia

Outline of presentation

1. Overview of networks' concerns about AER's current approach to inflation – heightened in the prevailing economic conditions

2. The debt allowance problem

3. The inflation forecasting problem

Two distinct problems, each requiring its own solution

4. The way forward

Overview of networks' concerns

- The current regime breaks down in the prevailing economic conditions.
- Addressing problems when they are identified enhances confidence in the regulatory regime.

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Current economic conditions have broken some aspects of the regulatory regime: Serious implications to consider and address

The regulatory regime does not provide networks with a sufficient allowance to pay their (efficient) interest bills.

Every business and household must pay its interest bill – owners have to top up any shortfall or they will be in default.

Current regulatory allowances result in networks incurring losses every year.

No business is sustainable if it is consistently unprofitable. It's not sustainable to suggest that losses can be plugged by borrowing against assumed increases in asset values.

The expected return on equity is ~2% for investors who use market data to forecast inflation.
This is lower than the prevailing return on debt.

-1.2% from current consumers and 3.2% from future consumers.
Investors have regard to expected returns when deciding where to deploy their capital.

Implications for consumers

Under the present regime, current consumers under-pay and future consumers will over-pay, relative to the efficient cost.

Equity receives a return of -1.2% from current consumers; to be caught up from future consumers (depending on inflation outcomes).

Businesses that are consistently unprofitable are not sustainable in the long-run.

Businesses that are consistently unprofitable will not keep investing.
In the long-run, losses cannot be plugged by further borrowing against assumed increases in asset values.

New investment continues to fall at a time when substantial investment is needed to support the transformation of the energy market.

Existing infrastructure is aging and investment is required for a new energy future.
Under-investment today creates a cost burden for future consumers.

Two distinct problems to address

The current AER approach to inflation creates **two** separate problems that exacerbate each other in the current economic conditions.

Debt allowance problem

- NSPs and the BEE issue nominal debt and are contractually required to pay nominal interest costs, but the regulatory framework delivers something different.
- Exacerbated by two recent change in economic conditions:
  - Record low allowed return on equity; plus
  - Widening gap between AER inflation forecast and other forecasts.

Inflation forecasting problem

- The current approach has consistently over-estimated inflation for 10 years now.
- The gap between the AER's forecast and market data continues to widen.

When a problem is identified it should be addressed – enhances confidence in the regulatory regime.

Breakdown of problems to address

Debt allowance problem

- For debt capital, the AER's models deliver a real return plus compensation for actual inflation.
- But efficient NSPs issue nominal debt, which requires payment of a nominal return (interest).
- → The AER's allowance differs from the return on debt that the efficient NSPs are contractually required to pay.
- Should customers fund the interest costs that prudent and efficient firms are contractually required to pay?

Inflation forecasting problem

- The AER's current approach delivers a real return to investors equal to the nominal return minus the AER's inflation forecast.
- → If the AER's inflation forecast differs from the market's true expectation, the AER's approach will deliver the wrong real return.
- The AER's current allowance implies a real risk-free rate of -1.5%, whereas the market rate is 0%.

Combined problem

- The structural problem in relation to the return on debt magnifies the inflation forecasting problem.
- Debt holders will always receive their contracted nominal interest payments.
- → Equity holders and consumers are left to 'make up the slack' via over- or under-compensation.
- In the current market conditions, the <u>expected</u> return on equity is below the AER's allowed return on spot debt.

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The debt allowance problem

- The regulatory allowance differs from networks' efficient interest bills.
- This is a problem with the structure of the AER's models.
- Its consequences are magnified in the prevailing economic conditions.

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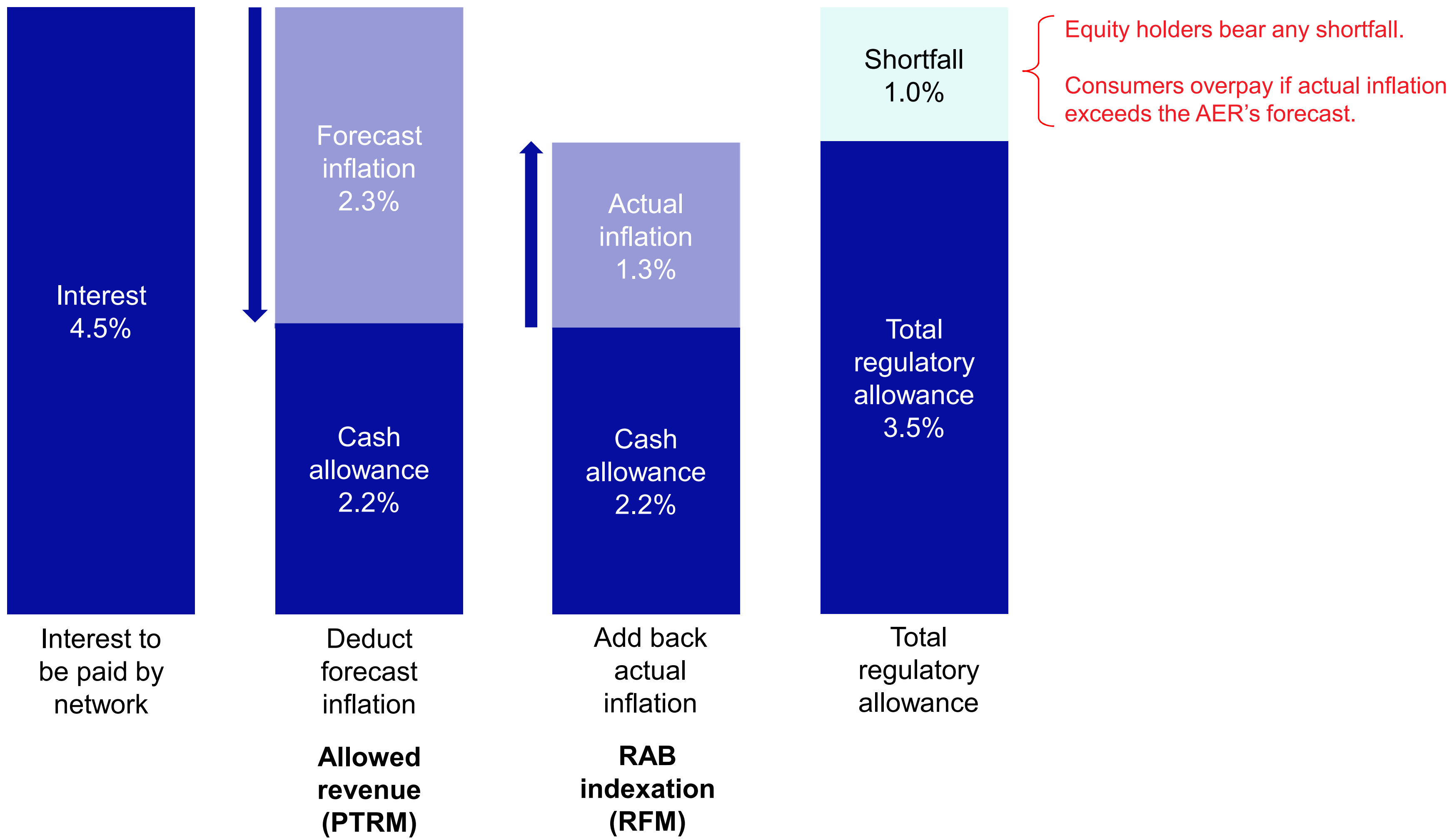
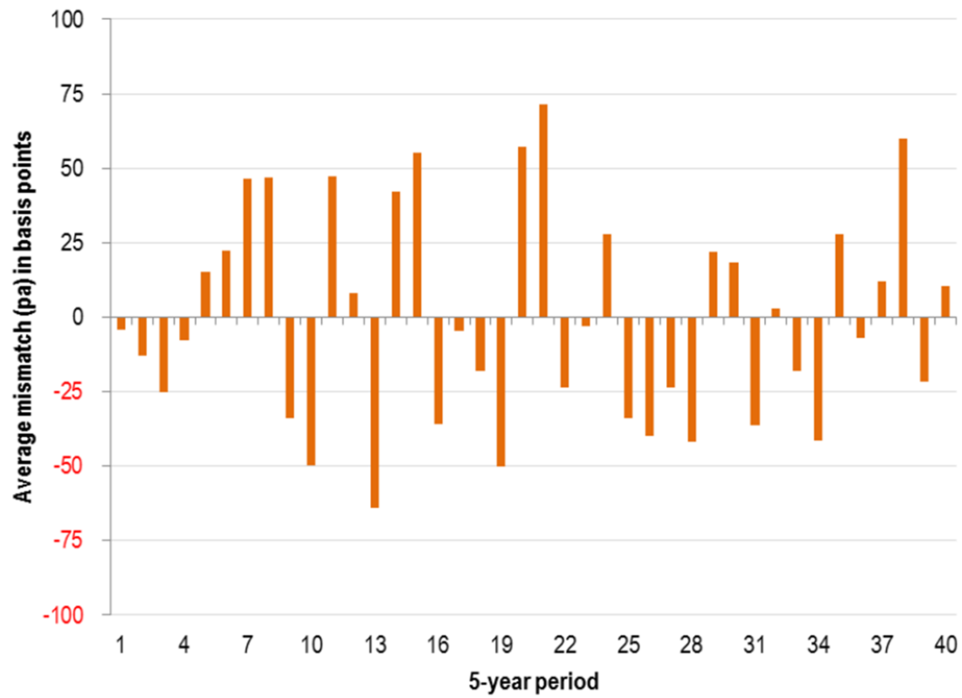
The debt allowance problem



The trailing average approach to the return on debt ensures that the regulatory allowance matches the benchmark efficient cost

- The key regulatory principle is that the regulatory allowance should match the benchmark efficient cost.
- The Trailing Average approach to the return on debt provides a regulatory allowance in line with what the AER determines to be the efficient cost that an efficient network would actually incur.
- It eliminates the cycle of under- and over-compensation for networks and under-and over-payment for consumers.
- It ensures efficient prices and fair compensation – in line with the benchmark efficient cost that an efficient network would actually incur.



Source: Queensland Treasury Corporation

The debt allowance problem

Proposed principle
Networks should be provided with a regulatory allowance that is sufficient to pay their efficient interest bills in each regulatory period.

Options for achieving the principle
In relation to debt capital, the same inflation figure should be used in both of the AER’s models (revenue allowance and RAB indexation) – for example: • Same inflation forecast used in both models; or • Nominal return on debt, no RAB indexation for debt.

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The inflation forecasting problem

- The current approach has consistently over-estimated inflation for 10 years now.
- No weight is given to data from financial markets.

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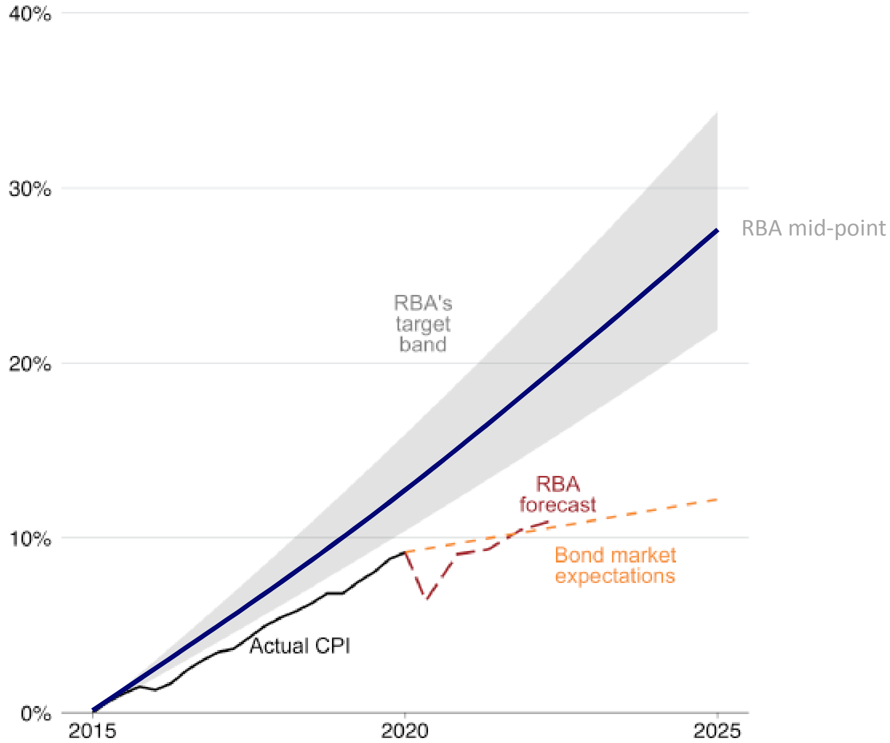
The AER's approach of assuming that inflation will return to 2.5% after two years is unrealistic in the current economic conditions

- The Grattan Institute has recently highlighted the consistently widening gap between RBA targets and likely outcomes.
- The wider the gap, the bigger the problem.

- The current approach uses:
  - RBA forecasts for Years 1 and 2.
  - AER forecasts (of 2.5%) for Years 3 to 10.

Figure 3.10: The RBA was undershooting its inflation target before COVID-19, and is now expected to miss the target by more

Cumulative total inflation since March 2015

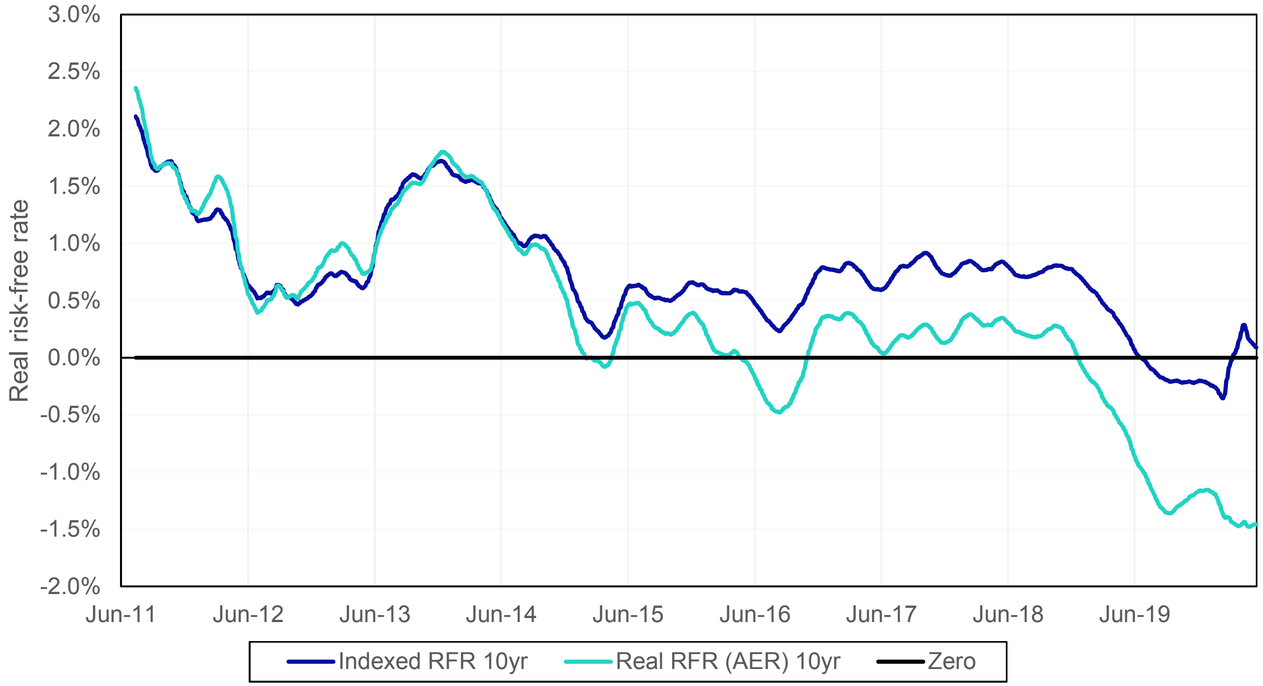


Notes: Bond market expectations refers to the compound average rate over five years. Calculated based on yields for Australian government securities. Yields at five-year maturity were imputed. Yields current as at 23 June 2020.

Sources: Grattan calculations based on RBA (2020a), ABS (2020i) and RBA (2020e).

The AER's approach has increasingly under-estimated the real risk-free rate materially since 2014

- The AER's approach currently estimates the 10-year real risk-free rate to be -1.5%.
- However, the **observed** 10-year real risk-free rate (i.e., the real risk-free rate that investors can actually lock in using inflation-indexed Government bonds) is currently around 0.0%.
- The gap between the AER's estimate of the real risk-free rate and the observed risk-free rate has widened since 2014.



Note: Data smoothed over a 40-day rolling window.

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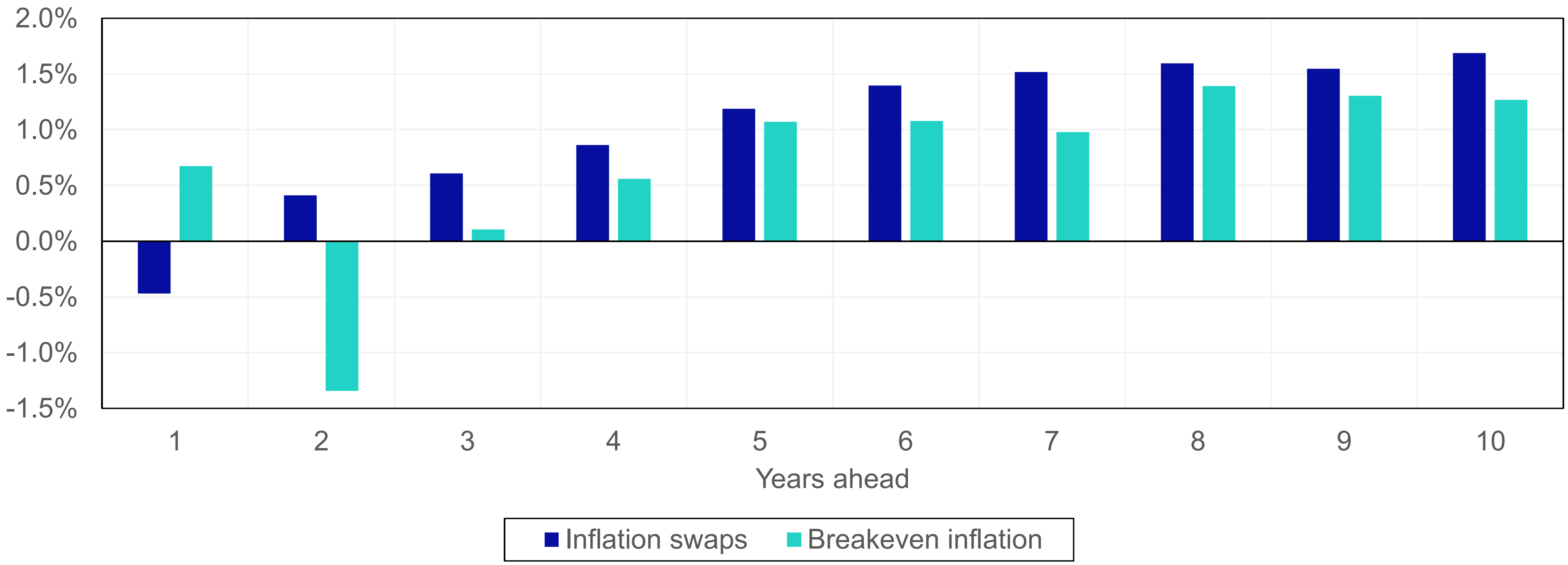
Market-based estimates of inflation expectations suggest that investors expect inflation to be less than 2% in <u>all</u> of the next 10 years



Note: Figures presented in this chart are based on data up to 12 May 2020.

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The inflation forecasting problem

Proposed principles
1. The objective is to determine the best possible estimate of expected inflation in the prevailing market conditions. 2. The best possible estimate should give appropriate weight to all relevant evidence.

Options for achieving the principle
1. Appropriate weight should be given to market evidence, having regard to the relevant strengths and weaknesses in the prevailing market conditions. 2. Evidence from market participants who trade products where real money is at stake is particularly relevant.

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Implications for networks and consumers

- Market data indicates that the expected return on equity is ~2% p.a.
- Current consumers pay a return on equity of -1.2%.
- Perhaps the pendulum has swung too far?

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Under the existing arrangements, an equity investor can expect to earn more as a lender to a network business than as a shareholder

- An investor who is expecting inflation to be 1.3% (in line with market data) rather than the AER's forecast of 2.3%, has a total expected return on equity of only 2.06% p.a.
- This is less than the AER's estimate of the <u>current</u> return on debt for the benchmark network.
- It is unrealistic to expect equity capital, to finance efficient investments, to be forthcoming under these circumstances.

Scenario	Expected return on equity	Return from current consumers	Return from future consumers
AER estimate of the required return on equity	4.56%		
Investor uses market data to form inflation expectations	2.06%	-1.19%	3.25%
Investor agrees with AER inflation forecast	4.56%	-1.19%	5.75%

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The way forward

- Are there some principles that everyone can agree upon?
- Important to be very clear about what is being proposed.

Proposed principles

- In relation to the return on debt, the regulatory framework should provide appropriate compensation for the AER's estimate of what the efficient network is contractually required to pay.

- The objective is to determine the best possible estimate of expected inflation in the prevailing market conditions. The best possible estimate:
  - Should give appropriate weight to all relevant evidence.
  - Should provide sensible estimates in the current extreme market conditions, and in the foreseeable range of market conditions.

- In the case where actual inflation turns out to <u>exactly</u> equal the AER's forecast, investors should receive the AER's allowed nominal return. In that case, the deduction for inflation in allowed revenues (PTRM) should be exactly offset by the benefit of RAB indexation (in the RFM) to precisely avoid double-counting.

- The <u>expected</u> return on equity should be above the <u>current</u> allowed return on debt.

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NSPs' current thinking

What NSPs are proposing

Use the same inflation figure in the revenue allowance (PTRM) and RAB indexation (RFM) in relation to debt capital.

Give appropriate weight to market evidence to derive the best possible estimate of market expectations of inflation.

What NSPs are not proposing

Networks are not proposing that they should be immunised against inflation turning out to differ from expectations.

Networks are not proposing anything that shifts any risk from networks to consumers.

Networks are not proposing anything that would result in price shocks to consumers.

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