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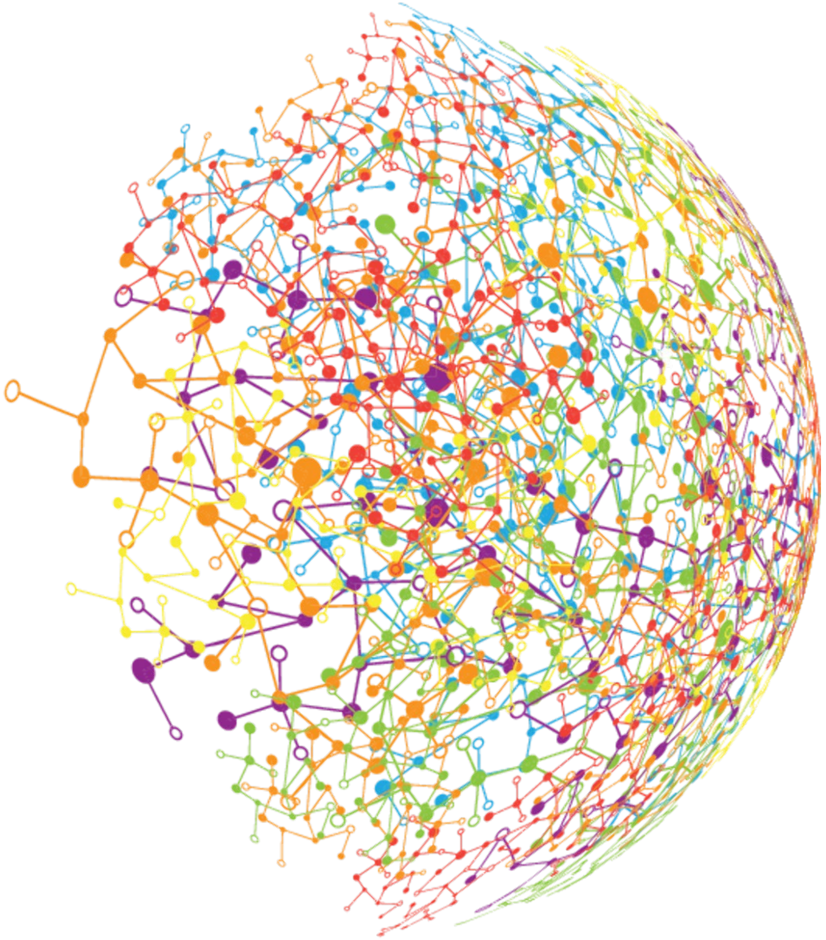


Review of the regulatory treatment of inflation

Stephen Smith and Sheraan Underwood

2 July 2020

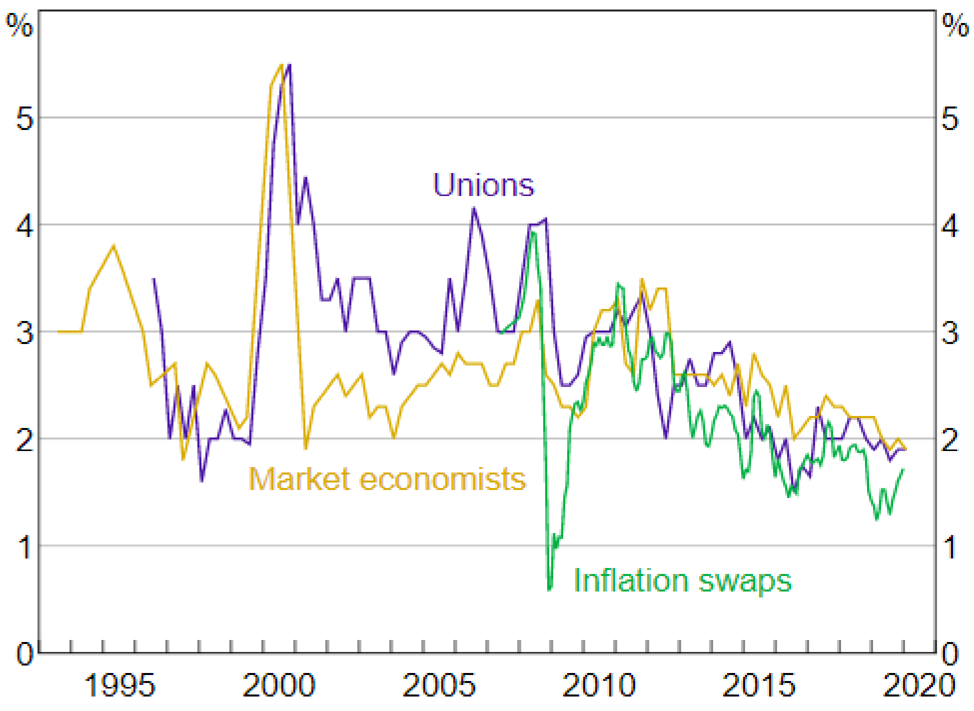
Deloitte Access Economics

Have inflation expectations de-anchored from the RBA target band?

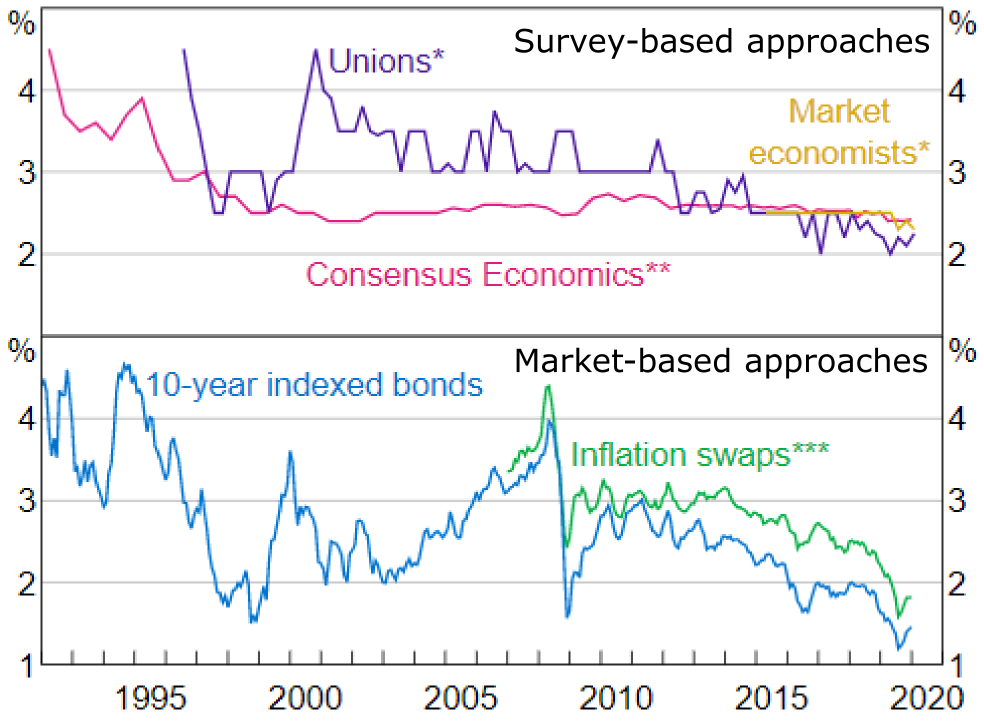
Recent movements in inflation expectations

There is some evidence that the weakness in inflation outcomes has started to affect inflation expectations. But the extent of the impact depends heavily on both the approach used to estimate expected inflation (market-based or survey-based) and the time horizon being examined (short term or long term).

Short term inflation expectations (over the next year)



Long term inflation expectations



*Average over the next 5-10 years.
**Average over 6-10 years in the future. Consensus Economics forecasts are provided by leading economists whose individual views are aggregated to produce a mean forecast of inflation.
***5-10 years forward

Source: Reserve Bank of Australia

Have inflation expectations de-anchored from the RBA target band?

Evidence from the academic literature

- Recent studies:
  - Moessner and Takáts (2020) – long term inflation expectations remain well-anchored in advanced economies where inflation was near the lower bound of the target range
  - Yetman (2020) – periods of low inflation are correlated with the decreased effects of short term inflation expectations on long term inflation expectations (suggesting that longer term expectations have remained well anchored)
  - Mehrota and Yetman (2018) long term inflation expectations are better anchored than shorter-term forecasts, and inflation expectations diverge from the long term anchor as the forecast period shortens.
- The degree of de-anchoring can differ substantially across countries and regions Buono and Formai (2018) as well as within a country based on the group being analysed (Xu 2019).
- Recent studies using market-based approaches (such as bonds and swaps) find that the risk of less well-anchored inflation expectations rose in the Euro Area, the United States and the United Kingdom in 2014 (Natoli and Sigalotti, 2018). However, these market based approaches may also be capturing the impact of falling risk premia rather than declining expectations (Coeuré 2019).
- Limitations in the literature:
  - There are few studies that examine inflation expectations in 2019 and 2020
  - Most recent studies focus on countries other than Australia and tend to analyse data over several years (which may cloud potential insights into recent changes in inflation expectations).

Framework for assessing inflation estimation approaches
Assessment criteria

- Measure of inflation:
  - CPI inflation is considered to be the most appropriate measure of inflation for use by the AER due to its widespread use, general acceptance, frequency of release, stability and broad coverage
  - Other measures considered were the GDP deflator, producer price indices and measures of underlying inflation (trimmed mean, weighted mean and CPI excluding volatile items).
- Assessment criteria:
  - **Relative congruence** – refers to how closely the chosen approach aligns with 10-year market expectations of inflation
  - **Robustness** – an approach is considered robust if it does not change significantly in response to events or data that have little or no influence on 10-year market expectations of inflation. An approach is also considered robust if the estimates obtained do not differ when other (appropriate) models or estimation methods are applied
  - **Transparency and replicability** – An approach that is transparent and replicable can be easily verified by stakeholders, improving regulatory certainty for stakeholders and reducing the risk that errors have been made in the calculation of estimates of inflation expectations for regulatory purposes
  - **Simplicity** – A simple approach is likely to produce estimates of expected inflation that require less effort to construct and check (for both the AER and stakeholders). A simpler method may also provide less scope for contentiousness.

Framework for assessing inflation estimation approaches

Analysis of inflation estimation approaches

Each of the approaches used to estimate expected inflation have advantages and disadvantages in relation to their use by the AER in its regulatory framework. Deloitte Access Economics finds that two approaches lend themselves to recommendation for use by the AER – the AER approach and a glide path approach.

	Relative congruence	**Robustness**	**Transparency and replicability**	**Simplicity**
AER approach	Good	Excellent	Excellent	Excellent
Glide path	Excellent	Good	Good	Excellent
Bond Breakeven Inflation rate	Good	Fair	Poor	Poor
Swaps	Good	Fair	Good	Fair
Surveys	Excellent	Good	Poor	Fair