

Non-technical summary for ‘Boundedly Rational Expectations and the Optimality of Flexible Average Inflation Targeting’

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What did we set out to do?

Central banks change interest rates in order to change people’s behaviour. But how these interest rate changes affect people’s behaviour depends crucially on how people form their expectations of the future.

Some people base expectations on their lived experience (backward looking), in which case interest rate changes need to change economic outcomes – such as inflation and incomes – before the rate changes affect their expectations. Other people incorporate more forward-looking information into their expectations, in which case understanding how interest rates will be set in the future – and how economic outcomes will evolve as a result – becomes an important factor when forming expectations.

Given the significant uncertainty about how people form their expectations, we seek to understand:

- how changes in the way people form their expectations affect how central banks should set interest rates
- which method of setting interest rates works well across a range of different expectation formation behaviours (i.e. which is the most robust).

By improving our understanding of how expectation formation affects the transmission of monetary policy, and how central banks can ensure their interest rate-setting frameworks are robust, our work is intended to aid central banks in upcoming reviews of their policy frameworks.

What did we learn?

Central banks should not just respond to current economic outcomes, but should continue to respond to outcomes that have occurred in the past. In essence, they should respond to an *average* of current and past outcomes, where the relative weight on past outcomes decreases the further in the past these outcomes occur. Bygones should not be bygones.

One advantage of doing this is that people who incorporate forward-looking information will know that in the future the central bank will still be responding to what is happening today, thereby influencing their expectations and current behaviour.

Another advantage is that past outcomes directly affect the expectations of those who base expectations on their lived experience, and can do so for a long time after the outcomes occur. As a result, inflation expectations, for example, can persistently drift away from the inflation target in response to above- or below-target inflation outcomes. Setting policy to offset undesirable drifts in these expectations therefore boils down to responding to a weighted average of current and past outcomes.

Central banks should also *flexibly* deviate from above in order to both pre-emptively respond to potential problems, and respond more forcefully once these problems manifest. For example:

- Shocks that are likely to have a persistent effect on the economy could cause expectations to drift in the future. Pre-emptively setting policy to move these expectations in the other direction could offset this future drift.
- Constraints on the central bank, such as the effective lower bound on interest rates, create a risk that central banks may not be able to effectively prevent future drifts in expectations; they should therefore respond pre-emptively while the constraint does not bind.

- Once the constraint does bind, making commitments that move the forward-looking expectations can produce beneficial behavioural responses today. We show how this should be done in a way that maximises the benefits relative to the expected future costs of these commitments.

Importantly, the above results arise even though the central bank in our framework are mandated to care equally about above- and below-target inflation. The asymmetric *response* to inflation occurs because the effective lower bound makes below-target inflation harder to offset.

What were our key takeaways?

The above robust method of setting interest rates is known as flexible average inflation targeting. Our contribution to the literature shows that this method of setting rates is robust across a range of expectation formation behaviour. It also shows exactly how both the *average* and the *flexibility* should depend on how expectations are formed.