The bias behind monetary policymaking

Minutes from the Federal Reserve meeting tonight may go some way to explaining why the bank left interest rates on hold in May. But to really understand the decision, and other central bank actions around the world, we may need to look at the policymakers themselves

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Each month, the interest rate setting committees of central banks typically meet to decide whether to change key interest rates. While these committee members have large amounts of data available to help them reach a decision that is as objective as possible, researchers are investigating the role of more subjective factors like past experiences and cognitive biases such as loss aversion and inertia to explain hawkish and dovish behaviour.

These behavioural effects may be significant, especially where decisions can be split between action and no change.

Consider the situation faced by the central banks of neighbouring New Zealand and Australia recently this month. The Reserve Bank of New Zealand cut the official cash rate to 1.5% while the Reserve Bank of Australia kept its cash rate unchanged at 1.5%.

Factors specific to each country undoubtedly played a role in the different decisions but each noted risks of slower growth in the global economy and in domestic consumer spending. However,

research suggests those making decisions on interest rates may be affected by more than direct evidence. Behavioural factors may come into play, such as the past inflation experience of policy makers and differing levels of loss aversion.

These observations imply that the depiction of individual policy makers as hawks (i.e. being inclined to take steps to prevent higher inflation) and doves (i.e. those inclined towards accepting the possibility of higher inflation) may need to be expanded to include another avian species: pigeons, who sit on the fence and could swing either way.

Inflation memories

The financial professionals who have been appointed to the monetary policy committee (MPC) will be expected to use their wealth of knowledge and analytical experience to decide whether to change interest rates.

However, just as consumers and investors are susceptible to cognitive biases, central bankers may also be vulnerable. Ulrike Malmendier, Stefan Angel and Zhen Yan set out to test their hypothesis that the beliefs about future inflation and consequently, the decisions of the members of the US Federal Reserve's Board of Governors are influenced by the inflation experiences they have had during their lifetime.

In their experiment, they built an economic model that incorporated lifetime inflation experience to forecast each board member's voting behaviour. They compared those forecasts with members' votes between March 1951 and January 2014 and found that those with more exposure to inflation in the past were more likely to have hawkish voting patterns. The effect was striking: someone who had an above-average experience with inflation was one third more likely to take a hawkish stance that went against the committee majority, and also one third less likely to take a dovish stance.

In other words, if governors lived as adults through periods of high inflation, such as the 1970s, they tended to be much more fearful of runaway prices than if they came of age during later decades, when inflation was largely under control.

Metamorphosis caused by inertia and loss aversion

A key feature of central bank activity since the global financial crisis has seen policies aimed at supporting the economy. This has led to long periods of very low interest rates and use of alternative forms of policy such as quantitative easing. Reversing these approaches has proved difficult. Some may claim inertia has affected members of the policy committees. Some research supports this idea.

A paper by Donato Masciandaro argues that an increased sense of loss aversion felt by individual monetary policy committee members may lead to inertia in policy setting.

When loss aversion increases, doves on the policy committee overestimate the losses that would flow from taking actions aimed at encouraging inflation. As a result, they do not rush to cut rates. Meanwhile, hawks overestimate the losses that might come from raising interest rates, and shy away from taking action. In effect, increasing loss aversion decreases the difference between hawks and doves. In Maschiandaro's view, monetary policy committees can be better described as being populated by pigeons, rather than hawks or doves.

One factor that may increase loss aversion is increased uncertainty about conditions in the economy. Evidence from Hites Ahir, Nicholas Bloom and David Furceri suggests uncertainty about conditions in the global economy has increased. If this has contributed to increased loss aversion by members of central bank policy committees, this may also have contributed to policy inertia.

Impact on consumers

While consumers typically don't need to worry about how interest rates are set, they are clearly affected by the decisions. Monetary policy influences mortgage and other loan repayments, as well as economic growth, inflation and unemployment.

The level of interest rates can also affect the behaviour of consumers. Research suggests the amount of risk individual investors are prepared to take increases as rates fall, especially to historically low levels, as they have in many countries since the global financial crisis. This can act as an added tool to boost growth but could also encourage excessive risk-taking, which may threaten financial stability.

Are algorithms the answer?

Behavioural bias is hard to escape, often resulting in bad decisions and costly outcomes. But is there a way to overcome it? Nobel-prize winning economist Daniel Kahneman thinks the answer could lie in algorithms and rules-based decision-making, which he says outperforms expert judgement.

In his 2011 book, 'Thinking, Fast and Slow,' he says the accuracy of predictions could be maximised if final decisions were "left mostly to formulas". But which formulas? The Federal Reserve argues there are a lot to choose from. And while rules provide "useful benchmarks," the central bank insists that following them mechanically would not capture the complexity of the US economy.

For now, at least, deliberation and discretion still rule the day.