
A cross-country comparison of inflation target frameworks

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Introduction

This paper compares New Zealand's inflation target with alternative frameworks found in some other countries. It compares inflation targeting regimes along six dimensions, broadly following Mishkin and Schmidt-Hebbel (2001):

- Goal independence or dependence
- Nature of the price index targeted
- Level of inflation target and the degree of tolerance around it
- Frequency with which the inflation target is applied
- Escape clauses
- Accountability for target breaches
- Non-inflation goals for the central bank

The paper focuses on inflation targeting central banks from Australia, Canada, the European Monetary Union, Finland, Iceland, Norway, Spain, Sweden, Switzerland, the United Kingdom, and, of course, New Zealand.¹

Key conclusions

As in New Zealand, most countries' inflation targets focus on the headline CPI

Most inflation targets are specified in terms of the headline CPI. As the headline CPI has changed to exclude the direct effects of interest rates on mortgage servicing costs, New Zealand and Australia have concentrated more on the

headline CPI. Previously, measures of underlying inflation had been explicitly mentioned in the inflation target. The United Kingdom targets an ex-interest measure of consumer prices, though the Swedish target is in terms of the headline CPI including mortgage interest costs.

New Zealand's 1999 PTA inflation target is lower than average, but has a wider band²

The European Central Bank (ECB) and the Swiss National Bank aim for inflation below 2 per cent. In practice, this seems likely to translate into a target range of 1 to 2 per cent – a mid-point of 1.5 per cent. Sweden, Canada, Spain and Finland have all had 2 per cent as their inflation targets. At the upper end are Iceland, Norway, the United Kingdom and Australia, each of which targets 2.5 per cent (where, in the case of Australia, the target takes the form of a “thick point” of 2 to 3 per cent through the business cycle). Thus, there is an even spread of inflation targets between 1.5 per cent and 2.5 per cent.

Generally, target bands are 2 percentage points wide. Along with New Zealand, only Iceland also has a target that is 3 percentage points wide. In this respect, New Zealand's inflation target appears more flexible than others, although flexibility also depends on a number of other factors, including the penalties associated with missing the target, the tolerance for being outside the target, and the extent to which other economic factors (such as seeking to avoid excessive volatility in real output and interest rates, or in the exchange rate) are factored into the inflation target.

¹ Athanasios Orphanides has pointed out that the ECB does not classify itself as an inflation targeting central bank. However, it does have a public, quantitative inflation target, and may be worth comparing with other inflation targeters on this basis. The Finnish and Spanish regimes no longer apply as Finland and Spain are part of the EMU. Other countries with inflation targeting regimes are Brazil, Chile, Colombia, the Czech Republic, Hungary, Israel, Korea, Mexico, Peru, Poland, South Africa and Thailand.

² For range targeters, I take the midpoint of the range as the level of the inflation target. For point targeters, I take the “tolerance” on either side to be half the width of the target band.

Most inflation targets apply continuously

If the *annual* inflation rate for *any quarter* is greater than 3 per cent or less than 0 per cent, the RBNZ's 1999 PTA inflation target has been breached. This tends to be the international approach, with a similar approach to applying the target in Sweden, Canada, the United Kingdom and Switzerland. Apart from the Australians and the ECB, other central banks' inflation targets are for annual inflation and apply each quarter. The Australian inflation target is more broadly stated, with the Reserve Bank of Australia (RBA) aiming to achieve 2 to 3 per cent inflation *over the business cycle*.³

Several central banks set their own inflation target, unlike in New Zealand

The ECB, the Swiss National Bank, the Norges Bank and the Swedish Riksbank all set their own inflation target, as did the Spanish and Finnish central banks, while in principle the RBA could unilaterally set its target as well. In practice, the RBA negotiates with the government to agree on the inflation target, as happens in New Zealand and Canada. On the other hand, the British government sets the inflation target without requiring the agreement of the Bank of England.

Goal dependent central banks are held accountable for target breaches

If inflation misses the 0 to 3 per cent target, the Reserve Bank of New Zealand must explain, in the *Monetary Policy Statement*, why the target has been breached and what policy actions will be used to remedy the breach. In addition, a prominent and internationally unparalleled feature of New Zealand's institutional arrangements is that the central bank governor can be dismissed if the inflation target is not met.

In the UK, if inflation is more than 1 per cent different from the target, the governor of the BoE must write an open letter to the Chancellor of the Exchequer explaining why the breach

has occurred and what the BoE intends to do to return inflation to target. The principle is the same in Canada, where the central bank must make a public explanation for any target breaches.

The RBA appears not to be required to make any public statement regarding any target breaches. This could be because the Australian target does not apply on a quarter-by-quarter basis, but over the business cycle.

Other inflation targeting central banks tend not to have any obligations to explain target breaches. This may be related to the fact that they set their own targets (eg, as with the ECB, SNB, Riksbank).

This pattern is mirrored in the developing countries that target inflation. In general, central banks that set their own targets do not have formal accountability procedures, while those whose targets are set by the government do have to give an account for target breaches.

New Zealand's PTA contains "caveats", which are unusual internationally

New Zealand's 1999 PTA provides a non-exhaustive list of specific circumstances in which breaches of the inflation target may be excused. The Czech Republic's framework mentions a list of supply-side effects that would lead that central bank to respond differently than it normally would. The Swiss framework also allows for their central bank to "look through" unusual events, provided they do not cause general inflationary pressures. The Canadian framework provides for a renegotiation of the target path under exceptional circumstances (such as an oil price shock).

The place of so-called "caveats" in the New Zealand PTA framework has changed during the last twelve years. Originally there was a provision to renegotiate the inflation target, though this has moved towards an acknowledgement that the Reserve Bank should be concentrating on medium term inflation developments and that some unusual events may mask these trends temporarily.

³ Nessén (2000) refers to this as "average inflation targeting" and suggests that with forward-looking expectations, average inflation targeting conditions inflation expectations and improves the efficient frontier facing the central bank. There is some debate about whether the RBA is an average inflation targeter or whether it just tries to bring inflation back to 2-3 per cent gradually (over the cycle).

Objectives for growth and employment are common, but subject to the inflation target

In inflation targeting frameworks, there is often discussion as to appropriate goals for monetary policy besides price stability. Such goals relate to either the level, rate of change, or volatility of output and employment, for example. These other goals are usually subject to the inflation target (ie the inflation target is the principal goal and other economic objectives are generally regarded as subordinate to it).

The remit for the Bank of England's monetary policy committee instructs the committee '*subject to [the price stability objective], to support the economic policy of Her Majesty's Government, including its objectives for growth and employment*'. Similar mandates have been applied to the central banks in Finland, Iceland, EMU and Spain. The Canadian and Norwegian frameworks mention fluctuations in such variables as output, trade, and employment.

The Swiss place their target in context by stating that price stability is the best contribution that monetary policy can make to growth, while the Riksbank does not appear to have any other official targets besides contributing to a safe and efficient financial system.

As New Zealand's PTA has evolved, it has incorporated more references to real economy considerations. In the last six years, additions have included the notion that monetary policy should contribute to growth and employment (by achieving price stability) and that policy should seek to avoid unnecessary instability in output, interest rates and the exchange rate.

The RBA's stated aims, where stability of the currency and full employment are mentioned side-by-side, without clearly indicating whether the inflation objective has priority over the other, is unusual by international standards. In practice, however, the Australians interpret full employment as the natural rate of employment, so that the employment goal and the price stability goal do not conflict.

Conclusions

A number of conclusions can be drawn the cross-country comparison:

- It is standard practice for the inflation target to focus on the headline CPI.
- New Zealand's target is lower than average, but has a wider than normal band.
- Targets are generally for annual inflation and apply in every quarter.
- The RBNZ is goal dependent (ie the monetary policy goal at a high level is specified in the Reserve Bank of New Zealand Act and the policy target is jointly agreed between the Minister of Finance and Governor or Governor-Designate). This contrasts with the situation in several other inflation targeting countries, where the inflation target is determined by the central bank. In some countries, however, the inflation target is specified by another party, such as the Minister of Finance or equivalent.
- For a goal dependent central bank, the RBNZ's accountability for target breaches is standard, except for the possibility that the Governor can be removed from office.
- The explicit "caveats" listed in the New Zealand PTA are uncommon by international standards, although the inflation targeting frameworks in some other countries effectively cover the matters dealt with in the caveats, but in a less explicit manner.
- Growth or employment goals often apply, subject to the inflation target being satisfied.

References

Mishkin, F and K Schmidt-Hebbel (2001), "One decade of inflation targeting in the world: what do we know and what do we need to know?" *NBER Working Paper #8397*.

Nessén, M (2000), "Average inflation targeting", Riksbank Working Paper 119.

I have also relied on internet sites of the various central banks. A good index of central bank websites is <http://patriot.net/~bernkopf/banks-1.html> (Mark Bernkopf).