Background Paper: The Monetary Frameworks of Four Inflation-Targeting Countries

*Robert Lafrance**

In the 1990s, a number of countries adopted explicit inflation targets as the goal of monetary policy, following the example of New Zealand and Canada.[1] The targets were introduced to make more concrete the authorities' commitment to achieve and maintain low rates of inflation in their economies. This paper provides a brief overview of the inflation-targeting programs of four countries—New Zealand, Canada, the United Kingdom, and Sweden—as background for this conference's round-table session. It discusses the circumstances and motivation for the adoption of the targets, as well as the main characteristics of the targets and how they have affected the accountability of the monetary authorities. Country experiences are reviewed in the chronological order of the adoption of the inflation targets. The concluding section outlines the common features of the particular monetary frameworks, which are summarized in Table 1, and reports on the monetary authorities' success in keeping inflation within the target ranges.

1. Many countries have adopted inflation-reduction goals, but according to Almeida and Goodhart (1996) only a few can be considered as "genuine" inflation target (IT) countries. For IT countries, the sole intermediate target of monetary policy is an official commitment from the monetary authorities to achieve a clearly defined, numerically quantified target for inflation. Almeida and Goodhart identify seven IT countries: Australia, Canada, Finland, New Zealand, Spain, Sweden, and the United Kingdom. Israel is also seen as a potential IT country, as the weight of exchange rate considerations in policy decisions decreases.

* *This paper was not presented at the conference, but was circulated to the participants beforehand as background to the round-table discussion on international experiences with inflation targets.*

New Zealand

Inflation targets were introduced in New Zealand as part of widespread and fundamental economic reforms. Following a period of low growth and relatively high inflation by OECD standards in the 1970s and early 1980s, New Zealand undertook a major program of economic reform in the mid-1980s. Economic and financial activities were liberalized, as controls, regulations, and subsidies gave way to market-oriented policies.

In March 1985, the New Zealand dollar was allowed to float, giving the Reserve Bank of New Zealand (RBNZ) the scope to conduct an independent monetary policy. Monetary policy was assigned the task of permanently lowering inflation. Because financial deregulation cast doubts on the usefulness of monetary targets, policy was based on a set of indicators (a checklist approach) including the exchange rate, interest rates, monetary aggregates, inflation expectations, and real output.

As inflation fell in the latter part of the 1980s, the inflation objectives became more ambitious and specific, leading to an explicit definition of price stability. The Reserve Bank Act, which took effect on 1 February 1990, introduced a statutory commitment to price stability as well as an incentive structure to achieve it. It made the Reserve Bank responsible and accountable for achieving price stability. The main provisions of the act are as follows:

- The Minister of Finance and the Governor of the Reserve Bank establish the inflation targets, and the admissible caveats that might justify a breach of the targets, in the Policy Targets Agreement (PTA).
- The Governor is held accountable for the outcome of monetary policy, and sanctions may be applied for non-performance. The Governor is also required to produce a policy statement at least every six months, outlining how monetary policy is to be implemented to achieve the objective of price stability.
- The government can have ultimate control of monetary policy for a period of up to 12 months by unilaterally setting new policy targets with an Order in Council tabled in Parliament.

New Zealand's inflation targets are expressed in terms of the 12-month rate of increase in the consumer price index (CPI).[2] The initial interim targets announced in April 1990 were 3 to 5 per cent. In the December 1992 PTA, the annual inflation target range was lowered to 0 to 2 per cent. This was widened to 0 to 3 per cent in December 1996, following

2. Since only food prices are sampled on a monthly basis, the CPI is published at a quarterly frequency. In this case, the 12-month change is deemed to be equivalent to a four-quarter change.

discussions between the RBNZ and the new coalition government that had emerged from the national elections in October. As noted above, the PTA allows for deviations from the target range as a result of: (1) the direct impact on the CPI of changes in interest rates represented in the CPI; (2) the direct impact on the CPI of aggregate price-level shocks due to natural disasters or changes in the rate of the goods and services tax (GST); and (3) the direct impact on the CPI of significant relative price shocks. Policy actions are based on a measure of "core" inflation, called underlying inflation, that adjusts the CPI for the shocks associated with these caveats and interest rate effects. In practice, accountability is principally in terms of the underlying rate.

As mandated by the Reserve Bank Act, the RBNZ has produced, since April 1990, a six-monthly *Monetary Policy Statement* to explain its policy actions. With due consideration of the lags in the transmission of monetary policy actions, policy responds to expected inflation pressures. The *Statement* provides a detailed assessment of macroeconomic conditions, inflation trends, a conditional inflation forecast, and a survey of inflation expectations. Previous inflation forecasts and policy actions are re-examined, and major risks for the inflation outlook are identified. This analysis is used to motivate the desired stance of monetary policy in the short run. (In the quarters between issues of the *Statement*, the RBNZ publishes inflation forecasts in its *Economic Projections*.)

More recently, the RBNZ has introduced a monetary conditions indicator or MCI, a concept pioneered by the Bank of Canada, to assist in assessing the stance of monetary policy (*Monetary Policy Statement*, December 1996). In an open economy, monetary policy affects the pace of economic activity and inflation through its influence on interest rates and exchange rates. The MCI is an index that combines an interest rate measure and an exchange rate measure according to their relative estimated effect on aggregate demand. Calculations for New Zealand suggest that a 2 per cent rise in the real trade-weighted exchange rate is roughly equivalent to a rise in the real 90-day interest rate of 100 basis points.

The MCI plays a role in the day-to-day assessment of monetary conditions, notably in judging whether changes in the components of monetary conditions have affected the overall level of conditions and thus the degree of monetary restraint on the economy. The RBNZ is using the MCI to indicate to the market whether overall monetary conditions are deemed appropriate to meet its objectives. The RBNZ affects monetary conditions mainly through its influence over the demand for settlement cash and the spectrum of interest rates. These adjustments are normally effected through announcements (such as the release of projections and policy statements). The settlement cash target for balances held at the RBNZ—

which, in principle, is the policy instrument to influence market conditions—is typically used only as a last-resort mechanism for adjusting monetary conditions. Changes in cash settings are very infrequent and are typically accompanied by an announcement.

Canada

Low inflation has long been the goal of monetary policy in Canada. From 1975 to 1982, policy was directed at gradually lowering the rate of inflation by targeting the narrow monetary aggregate, M1. This framework was abandoned in 1982, when it was recognized that financial innovations had weakened the link between M1 and nominal spending. While no explicit intermediate targets were used between 1982 and 1991, policy remained directed to lowering inflation.

In February 1991, the Bank of Canada and the Government of Canada jointly announced explicit targets for reducing the rate of inflation on a path to price stability.[3] The targets, when announced, were also intended to anchor inflationary expectations, particularly in the context of a significant price-level shock stemming from the introduction of the GST at the beginning of 1991. Fundamentally, the inflation-reduction targets expressed the longer-term commitment of the authorities to the goal of price stability. As noted in the press release: "The intention in setting out explicit targets… is to encourage Canadians to base their economic decisions on this downward path for inflation so that the lower inflation will be more readily achieved" (Bank of Canada 1991b, 6).

The policy objective was reaffirmed by the government and the Bank on the appointment of a new Governor in December 1993, and the target range that had been specified to the end of 1995 was extended a further three years. A decision will be reached by the end of 1998 on a future target range that is consistent with price stability.

The inflation targets are defined in terms of the 12-month rate of increase of the CPI, which is the most relevant measure of inflation for most Canadians. A target range of +/–1 percentage point was defined around target rates of 3 per cent by end of 1992, 2.5 per cent by mid-1994, and 2 per cent by the end of 1995. While the targets are defined for the overall CPI, the Bank of Canada has focussed its near-term policy actions on the core CPI excluding food and energy prices and the effects of indirect taxes, as being more representative of underlying inflationary pressures. However, if a

3. The desire to reduce inflation towards a longer-run objective of price stability was made particularly clear in the Hanson Lecture delivered by then Governor John Crow at the University of Alberta on 18 January 1988.

persistent divergence were to occur between the total and the core CPI, policy actions would be taken to meet the targets in terms of the total CPI. Under exceptional circumstances, such as a widespread natural disaster or a large increase in oil prices, the target path for inflation can be re-examined to see whether it remains feasible or appropriate.

Policy actions are forward-looking in recognition of the lags in the transmission of monetary policy. Quarterly internal projections, using a model in which expectations play an important role, are generated to indicate a path for monetary conditions that would be compatible with the inflation targets in the medium term (Duguay and Poloz 1994; Longworth and Freedman 1995). These assessments are also reviewed between projections in the light of new information.

Monetary conditions reflect both short-term interest rate and exchange rate developments. Their proximate relative effects on aggregate demand are captured by the monetary conditions index or MCI. In Canada, a 100-basis-point increase in the 90-day commercial paper rate in real terms is estimated to have an effect on aggregate demand of the same order as a 3 per cent increase in the real effective exchange rate. The MCI is used as a short-term operational target for policy purposes, and it is recognized that markets will determine the actual mix of interest rates and the exchange rate that combine to determine the monetary conditions (Freedman 1994).

The Bank affects the MCI by its influence on the overnight financing rate. Since mid-1994, the Bank of Canada has been setting an operational target band of 50 basis points for the overnight financing rate, maintaining the market rate within the band through repos and reverse repos. Changes in the operational target band are explained in press releases. Since 22 February 1996, the Bank Rate has been set at the upper limit of the operating band. (It was previously set at 25 basis points above the 3-month treasury bill rate at tender.)

Since May 1995, the Governing Council of the Bank of Canada has produced a semi-annual *Monetary Policy Report*. The report reviews recent developments in inflation and explains the policy measures undertaken since the last report. It also provides an outlook for inflation in broad terms (such as, "in the lower half of the inflation-control range") and general indications on the possible direction for monetary conditions. The communication of the Bank's strategy and policy initiatives is viewed as an essential element in achieving credibility and in being accountable.

The Bank has responsibility for the day-to-day implementation of monetary policy required to meet the inflation targets. However, under the Bank of Canada Act, the Minister of Finance has the power to override the Bank's decision-making authority via the publication of a directive. It is

understood that such a directive would trigger the resignation of the Governor.[4] A directive has never been issued.

The United Kingdom

In the late 1970s and early 1980s, efforts to reduce inflation in the United Kingdom relied on broad money (M3) targets that proved to be unreliable because of large shifts in velocity. Through 1987-88, monetary policy used the exchange rate as an informal nominal anchor, as the authorities shadowed the German mark in an attempt to benefit from Germany's low rate of inflation. In October 1990, the United Kingdom joined the exchange rate mechanism (ERM). However, market pressures in response to divergent cyclical conditions in the United Kingdom compared with Germany led to a sharp depreciation of the currency in September 1992, despite substantial official intervention. The U.K. government subsequently moved to a floating exchange rate and adopted explicit inflation targets in October 1992, with a long-term goal of price stability.

The inflation target refers to the 12-month increase in the retail prices index excluding mortgage interest payments (RPIX). The target range was initially set at 1 to 4 per cent, with the intention of being in the lower half of that range by the end of the current Parliament. In June 1995, the then Chancellor reaffirmed the inflation target and extended it. The aim was to achieve underlying inflation (measured by the RPIX) of 2.5 per cent or less. In June 1997, the new Chancellor set the inflation target on a point target of 2.5 per cent.

The monetary policy framework is forward-looking so that interest rate decisions are made on the basis of an assessment of the prospects for inflation up to two years ahead. In the current monetary framework there is no list of circumstances under which policy would be aimed at achieving anything different from the stated target over the two-year horizon. However, it is recognized that there may be events outside the control of monetary policy, such as movements in commodity prices, that might temporarily take inflation away from its target. But in the forward-looking framework, policy will respond to changes in cost and demand pressures that alter the outlook for inflation. Since June 1997, the Bank has been required to write an open letter to the Chancellor whenever inflation diverges from the target by 1 percentage point or more on either side.

---

4. This understanding was proposed by Governor Rasminsky who succeeded Governor Coyne. In the early 1960s, Mr. Coyne resigned following a disagreement between the Bank of Canada and the government of the day on the conduct of monetary policy.

The Bank of England was asked by the Chancellor to produce its own independent assessment of progress towards hitting the inflation target. It has done so since February 1993 in the quarterly *Inflation Report*. The publication of the report, which is not vetted by Treasury officials, provides the public with the Bank's own assessment of inflation pressures and makes the Bank accountable for its analysis. The *Inflation Report* reviews recent economic developments, including the evolution of various aggregate price measures, financial market developments, aggregate demand and output, labour market conditions, and pricing behaviour. This information is evaluated and culminates in a medium-term inflation forecast based on the assumption of no change in short-term interest rates. Confidence bands appear around the forecast. Since February 1996, these have taken the form of a published probability distribution for expected inflation. The projections are not built around a large macroeconomic model but reflect rather the assessment by management and staff of the underlying inflation pressures, using various inputs and analytical tools. A survey of private sector inflation forecasts is also discussed. In its conclusion the report provides some guidance in qualitative terms, from the Bank's viewpoint, on the desired direction of monetary policy.

In addition, several changes were introduced in the institutional framework to build up the credibility of the anti-inflation policy. Policy discussions became more open. The monthly monetary meetings between the Governor and the Chancellor were formalized, with the minutes of each meeting being published two weeks after the following meeting. The minutes set out in full the Governor's assessment of monetary conditions and also report the assessment of economic conditions and trends by senior Bank and Treasury officials in preparatory meetings.

The Bank's aim in implementing monetary policy is to maintain a structure of short-term market interest rates that is consistent with the level of official rates. The Bank actively manages the pace at which it provides money market liquidity during the day. Since March 1997, the Bank has extended its daily operations to include gilt repos.

On 6 May 1997, the Bank of England was given operational responsibility for setting interest rates to achieve an inflation target determined by the government of 2.5 per cent. Henceforth, policy decisions are to be the responsibility of a new Monetary Policy Committee, comprising nine members, including four outside experts appointed by the government. The committee meets every month and announces its decision immediately after the meeting through a press release. More detailed minutes and a record of votes cast are published no later than six weeks after each meeting. Bank officials are to report to the Treasury Select Committee of the House of Commons at times to explain their decisions, in addition to

the open letter in the event of the targets being breached by 1 percentage point or more.

Sweden

In the fall of 1992, the Swedish krona came under intense pressure, reflecting concerns about Sweden's economic prospects and policies. Despite a vigorous defence by the Riksbank, the fixed exchange rate regime, which had provided Sweden's traditional nominal anchor, became unsustainable, and the krona was allowed to float on 19 November 1992. In a situation reminiscent of Sweden's experience in the 1930s, when a price-level target was adopted following the recommendations of a panel of experts (Jonung 1979), the Governor of the Riksbank commissioned position papers by the staff and outside academics to review the policy options.

In January 1993, the Riksbank's Governing Board announced that, while price stability remained the goal of monetary policy under the floating regime, the objective would be more clearly defined in terms of achieving a CPI rate of inflation of 2 per cent, +/– 1 percentage point, for 1995 and on. The target was seen as achievable and in line with the ambitions of other European countries. The adoption of an explicit inflation target was seen to offer several advantages: it would limit the uncertainty generated by the transition to a floating exchange rate regime; it would help contain inflationary expectations; and it would enable the public to track the performance of monetary authorities and make them more accountable.

In March 1993, a government committee recommended institutional reforms to make the Riksbank more independent and to enshrine the price stability goal in legislation. However, in the light of political opposition the government refrained from submitting the proposal to Parliament.

The Riksbank's Governing Board consists of eight members; seven of them are appointed by Parliament after each election, and they then choose the Governor, the eighth member, for a five-year term. The Governor may be dismissed at any time by the other members of the board at their discretion. Moreover, with four votes on the board, including the Chairman's decisive vote, the ruling party or coalition can enforce its monetary policy wishes if it so desires.

On 20 May 1997, five parties of the Swedish Parliament reached an agreement to give the Riksbank a high degree of independence in the conduct of monetary policy. There are five key provisions. First, the goal of price stability as defined by the inflation targets is to be established by law. Second, the choice of the exchange rate regime will be made by the government after consultation with the Riksbank. The Riksbank will have

the responsibility for implementing the regime, including deciding on the central rate and the band width in a fixed exchange rate system. Third, the independence of the Riksbank on monetary policy matters will be ensured by a constitutional amendment. Fourth, monetary policy will be the responsibility of a new Directorate, whose members will be appointed for a six-year period. Finally, the Governing Board will retain general supervisory functions and will appoint members of the Directorate.

As noted above, the inflation targets are defined in terms of the CPI. The 1 to 3 per cent inflation target is defined in terms of annual averages rather than over a particular 12-month period. There are no explicit provisions for the temporary accommodation of special circumstances such as large supply shocks or indirect tax effects, because these are subsumed in the tolerance margins for the inflation targets.[5]

Given the long lags between monetary policy actions and the response in inflation, the Bank is normally unable to counteract unforeseen shocks that push the inflation rate beyond the targets. The Riksbank has stated that in such cases it will conduct policy to bring inflation gradually back into the target range (Andersson and Berg 1995). Moreover, with respect to price shocks associated with changes in indirect taxes and subsidies or unforeseen changes in the terms of trade, the Riksbank has indicated that it would accommodate the direct effects, but that it would, as far as possible, prevent these shocks from affecting inflation expectations. Direct effects from a currency depreciation will no longer be accommodated, however, because a persistent weakening of the krona is seen as reflecting mainly rising inflation expectations.

As in the other countries described above, monetary policy in Sweden affects the economy through interest rates and the effective exchange rate. Although a monetary conditions index is computed and forms part of the background in any analysis of the stance of monetary policy, the MCI is not used as an operational target (the weight of the exchange rate is one-third of that of the interest rate in the Riksbank's MCI). In addition, as noted above, movements in the exchange rate that tend to be more persistent and thus to affect the inflation rate are taken into account in the conduct of monetary policy. In May 1994, the 2-week repo rate became the principal instrument of monetary policy (previously it had been the overnight lending rate or marginal rate). In July 1996, the Riksbank shortened the maturity of its repos to one week.

---

5. In 1993-94, the Riksbank had to contend with unavoidable price increases following the depreciation of the krona and tax reforms. Thus, policy was directed at preventing the inflationary impulses resulting from the depreciation and the changes in indirect taxes from causing the underlying rate of inflation to rise.

The Riksbank publishes a quarterly, the *Inflation Report*. The Governing Board discusses the implications for monetary policy of the inflation analysis, which is the responsibility primarily of the Riksbank's Economics Department, and in the report the Governor presents the broad conclusions of that discussion. The report reviews current inflation trends and expectations and provides an inflation outlook over the next two years based on aggregate demand and supply, labour market developments, fiscal policy, and financial indicators. These inflation reports are a way for the Riksbank to signal its intentions to financial markets and prevent policy surprises. The purpose of these reports is to encourage debate about the role and conduct of monetary policy. In addition, the reports have increased the Riksbank's accountability by requiring that it regularly reassess its past policy actions.

Conclusions

The monetary policy frameworks of these four countries under the inflation target regimes are broadly similar (see Table 1). In each country, the objective has been to maintain the rate of inflation of consumer prices at low levels within a fairly narrow range. Governments have supported these objectives, either explicitly or tacitly. Policy actions are forward-looking and based on inflation projections, which range, in published form, from quite detailed (New Zealand) to broadly indicative (Canada).

A significant change in the conduct of monetary policy in the four countries following the adoption of inflation targets is the greater effort that has been made to communicate policy actions and intentions clearly through various means. The public is more informed about the monetary authorities' actions. The central banks publish regular reports in which they assess inflation pressures and indicate the intended direction of policy actions. The reports explain past actions, and discuss factors affecting the future settings of policy instruments. The authorities are thus more accountable for their analyses and their actions. In New Zealand, and more recently in the United Kingdom and Sweden, the monetary authorities have also gained more autonomy to conduct monetary policy.

While the move to explicit inflation targets has represented an important change in the monetary framework, it is probably fair to say that the conduct of monetary policy, in terms of policy instruments and the understanding of the transmission process of monetary policy actions, has not changed radically in these inflation-targeting countries—apart from the obvious implications of moving from a fixed to a flexible exchange rate regime in the case of Sweden and the United Kingdom. While the goal of achieving a target rate of inflation provides a framework for and discipline on decision-making, the day-to-day conduct of monetary policy in the four

countries remains discretionary in nature. That is, inflation targets represent goals, not explicit rules for policy actions. Policy actions are based on inflation projections that are arrived at by combining, to various degrees, the outlook from econometric models, leading indicators, and professional judgment.

The targets are a concrete way of expressing a commitment to price stability. To varying degrees the countries discussed in this paper had acquired relatively poor reputations as inflation fighters before the adoption of inflation targets. Announcing inflation targets and subsequently developing a record of meeting their targets was seen as a way of establishing a more credible monetary policy of low inflation.[6]

Figures 1 to 4 record the success the four countries have had so far in meeting their targets. The vertical lines indicate when the inflation targets were first announced. Inflation profiles (quarterly data) are plotted for the targeted price indexes, and, where specified, for the central banks' preferred core measures. The shaded areas represent the target ranges. The ranges are interpolated from stated goals for specific periods.[7] Success has been apparent, though departures from announced ranges have occurred, highlighting the difficulty in maintaining inflation within a narrow range. In some cases, explicit caveats can account for deviations from the range.

---

6. Since inflation declined in many countries in the 1990s, regardless of whether or not they had adopted explicit inflation reduction targets, it is hard to reach strong conclusions on the effects of the targets per se. Reviewing the experience of inflation targets (IT) and their effect on the conduct and effectiveness of monetary policy, Almeida and Goodhart (1996, 58) conclude that it is too early to tell: "One needs a longer experience with IT for any significant differences in Central Bank behaviour to emerge, if they exist. There are some signs that IT might have had a positive impact, especially in the countries where it has been in force for a longer period (New Zealand and Canada), but most of these are country specific. Systematic patterns across all IT countries are hard to find."

7. In the case of New Zealand, the target bands are based on the most recent ones, which were set at different times. The first PTA, signed in March 1990, designated a final target of 0 to 2 per cent by the end of 1992. In April, the RBNZ announced transition targets for the end of 1990 and the end of 1991. A new PTA was signed in December 1990, extending the final target to the end of 1993. Following this, in February 1991, the RBNZ announced new transition targets for December 1991 and December 1992. A third PTA was signed in December 1992, where the target was to hold from that moment until the end of the Governor's term in 1998. Finally, a fourth PTA was signed in December 1996, widening the range to 0 to 3 per cent. Therefore the target ranges that we plotted are 3 to 5 per cent in 1991, 2.5 to 4.5 per cent in 1992, 0 to 2 per cent from 1993 to 1996, and 0 to 3 per cent in 1997.

Table 1

Inflation Targets and Monetary Policy Frameworks, Four Countries

	New Zealand	Canada	United Kingdom	Sweden
Inflation target				
Date adopted[a]	2 March 1990	26 February 1991	8 October 1992	15 January 1993
Announced by	Policy Targets Agreement between Governor and Minister of Finance	Government and central bank	Government	Central bank
Index	CPI, adjusted for specific caveats	CPI	RPIX[b]	CPI
Target (current)	0-3%	1-3%	2.5%	2% (+/– 1 percentage point)
Horizon (current)	To end of Governor's term: August 1998	To end of 1998	From mid-1997 on	From 1995 onwards
Core inflation[c]	Underlying inflation: CPI adjusted for caveats	CPI excluding food, energy, and effects of indirect taxes	Various measures outlined in *Inflation Report*	UND1: CPI excluding mortgage interest costs and effects of indirect taxes and subsidies UND2: UND1 excluding petroleum and petrol prices
Caveats[d]	Explicit	Explicit	None	None
Policy framework				
Inflation projections	Up to 2-3 years ahead	Internal[e]	Up to 2 years ahead	1-2 years ahead
Main indicators	Exchange rate, output gap, inflation expectations, money and credit growth	Output gap M2+, M1, wages	Output gap, inflation expectations, M0, M4	Inflation expectations, yield curve, output gap

(continued)

Table 1 (cont'd)

Inflation Targets and Monetary Policy Frameworks, Four Countries

	New Zealand	Canada	United Kingdom	Sweden
Operational target	Monetary conditions indicator	Monetary conditions index	No single measure	None
Policy instrument	Settlement cash balances	Overnight rate operating band	Repo rate	Repo rate
Communications				
Policy statement or inflation report	Twice a year	Twice a year	Quarterly	Quarterly
Press releases	With release of quarterly *Economic Projections* or changes in the settlement cash target	Explaining changes in official interest rate band	Recording the outcome of each Monetary Policy Committee meeting	For changes in the official interest rate band
Reporting to government	Parliamentary Finance and Expenditure Committee	Governor meets with Minister of Finance and appears before House/Senate committees	Bank officials to report to Treasury Select Committee of the House; open letter to Chancellor whenever target is breached by 1 percentage point or more	Parliament
Other	Speeches and commentaries by senior officials; research papers	Governor's comments to Board published; speeches by senior officials; research papers	Monetary Policy Committee minutes published; speeches by senior officials; research papers	Speeches by senior officials; research papers

a. Initial date of adoption of inflation target policy.
b. RPI excluding mortgage interest payments.
c. Measure of inflation that best represents underlying inflation pressures according to the monetary authorities.
d. Caveats for Canada include large supply shocks and the effects of indirect taxes. In New Zealand, admissible caveats include: (1) the direct impact on the CPI of changes in interest rates represented in the CPI; (2) the direct impact on the CPI of unique aggregate price-level shocks due to natural disasters or changes in the rate of GST; and (3) the direct impact on the CPI of significant relative price shocks.
e. Indicative inflation range for the next 6 to 12 months in the *Monetary Policy Report*.

Figure 1

New Zealand CPI Inflation

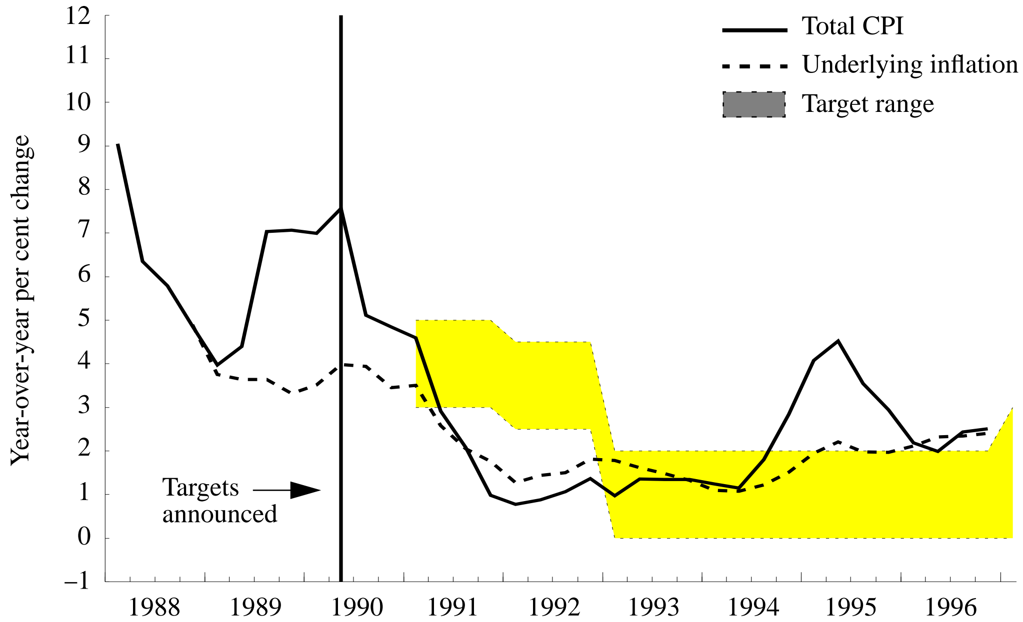


Figure 2

Canada CPI Inflation

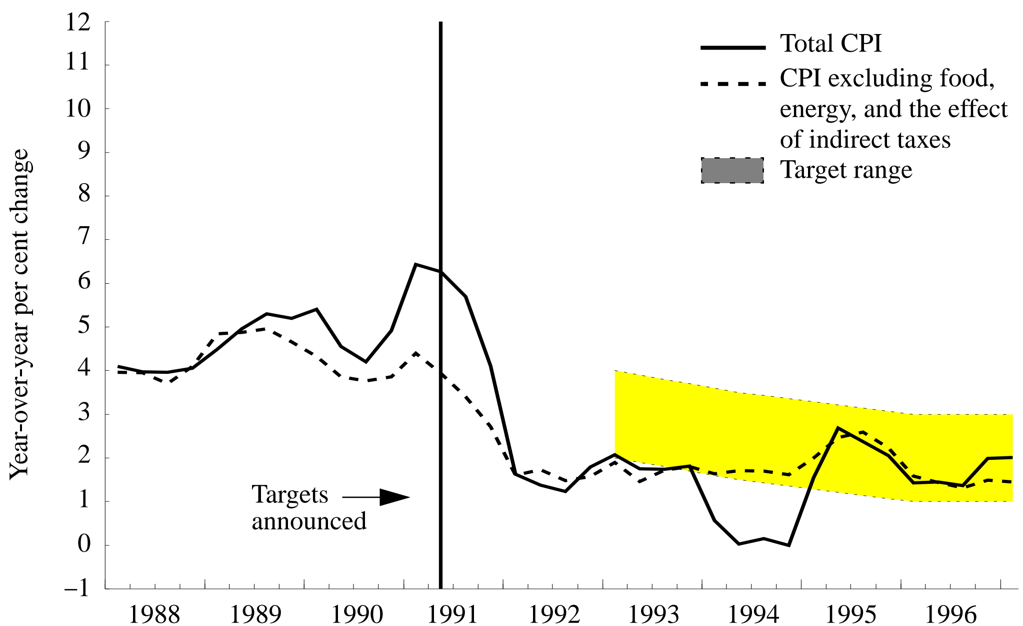


Figure 3

United Kingdom RPIX Inflation

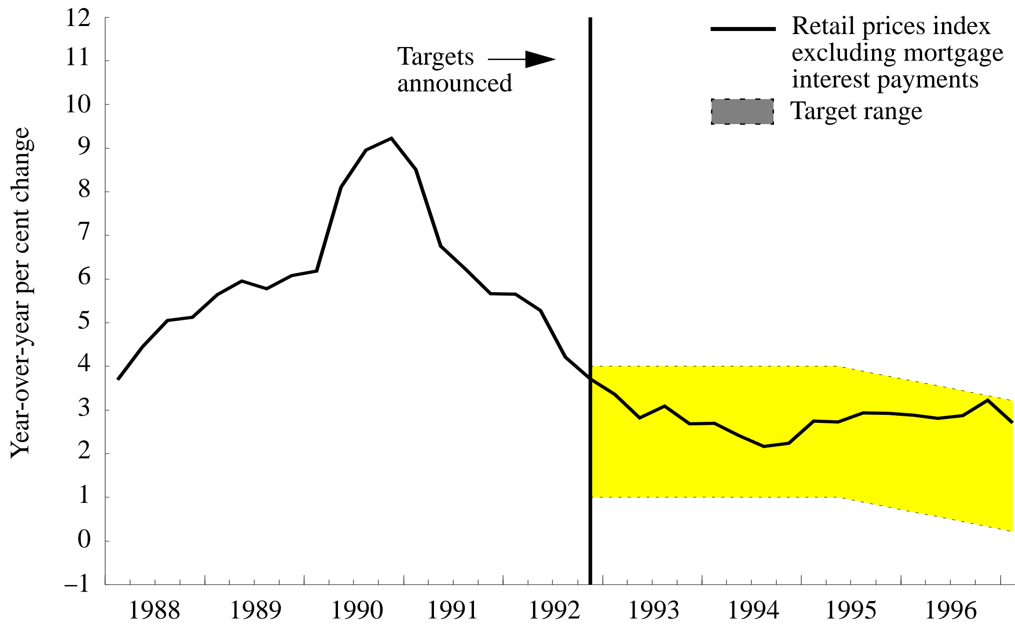
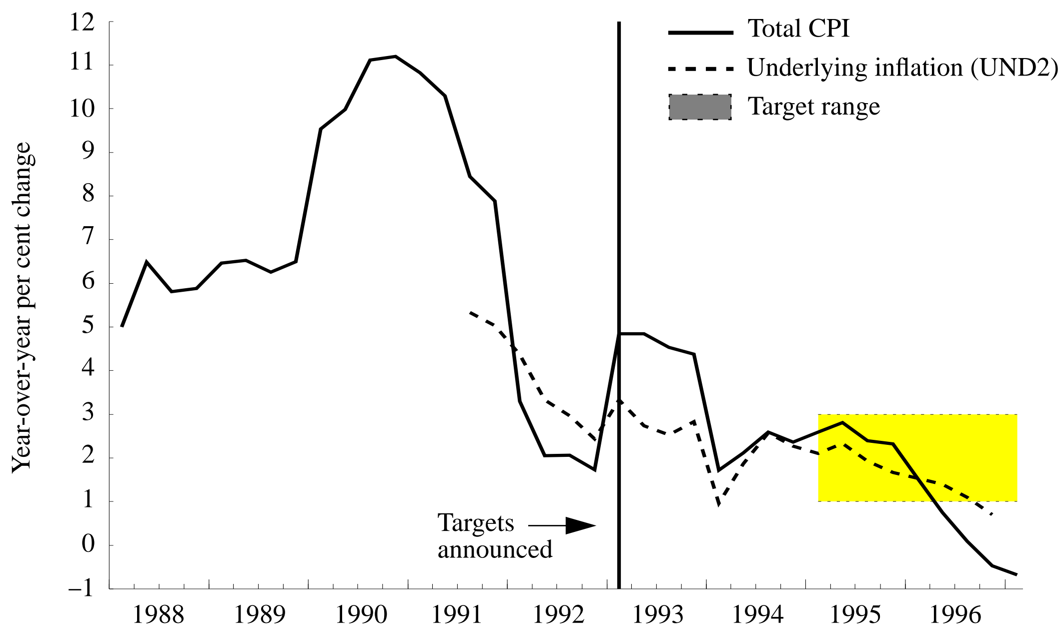


Figure 4

Sweden CPI Inflation



References

Almeida, A., and C. A. E. Goodhart. 1996. "Does the Adoption of Inflation Targets Affect Central Bank Behaviour?" Draft, July. Financial Markets Group, London School of Economics.

Andersson, K., and C. Berg. 1995. "The Inflation Target in Sweden." In *Targeting Inflation,* edited by A. G. Haldane, 207-25. London: Bank of England.

Bank of Canada. 1991a. "Background Note on the Targets." *Bank of Canada Review* (March): 9-15.

———. 1991b. "Press Release: Targets for Reducing Inflation." *Bank of Canada Revie*w (March): 5-6.

———. 1993-94. "Statement of the Government of Canada and the Bank of Canada on Monetary Policy Objectives." *Bank of Canada Review* (Winter): 85-86.

———. *Monetary Policy Report.* Various issues.

Bank of England. 1996. *Bank of England Quarterly Bulletin* (November).

———. *Inflation Report*. Various issues.

Bowen, A. 1995. "British Experience with Inflation Targetry." In *Inflation Targets*, edited by L. Leiderman and L. E. O. Svensson, 53-68. London: Centre for Economic Policy Research.

Crow, J. 1988. "The Work of Canadian Monetary Policy." Eric J. Hanson Memorial Lecture. *Bank of Canada Review* (February): 3-17.

Duguay, P., and S. Poloz. 1994. "The Role of Economic Projections in Canadian Monetary Policy Formulation." *Canadian Public Policy* 20 (June): 189-99.

Freedman, C. 1994. "The Use of Indicators and of the Monetary Conditions Index in Canada." In *Frameworks for Monetary Stability: Policy Issues and Country Experiences*, edited by T. J. T. Baliño and C. Cottarelli, 458-76. Washington, D.C.: International Monetary Fund.

Jonung, L. 1979. "Knut Wicksell's Norm of Price Stabilization and Swedish Monetary Policy in the 1930's." *Journal of Monetary Economics* 5 (October): 459-96.

Longworth, D., and Freedman, C. 1995. "The Role of the Staff Economic Projection in Conducting Canadian Monetary Policy." In *Targeting Inflation*, edited by A. G. Haldane, 101-12. London: Bank of England.

Reserve Bank of New Zealand. *Monetary Policy Statement*. Various Issues.

Sveriges Riksbank. *Inflation and Inflation Expectations in Sweden*. Various Issues.