

LESSONS FROM INFLATION TARGETING EXPERIENCE

A JOINT ECONOMIC COMMITTEE REPORT



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February 1997

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EXECUTIVE SUMMARY

A number of countries recognize the many potent benefits of price stability and consequently have explicitly adopted it as the principal goal of monetary policy. After highlighting these benefits, this paper summarizes the key lessons derived from this international experience with price stability.

1. The single, explicit goal of price stability can be successfully implemented by the monetary authority.
2. Price stability targets can take the form of inflation targets rather than price level targets.
3. The CPI can be used as the inflation target.
4. Inflation targets should take the form of bands rather than point estimates.
5. Establishing the credibility of a price stabilizing monetary policy takes time.
6. Inflation objectives should be multi-year in nature.
7. Inflation targets should be accompanied by more open, transparent monetary policy reporting.
8. Inflation targets should be consistent with other macroeconomic policies of the government.
9. Inflation targets should not be accompanied by directives on how to achieve these goals.

LESSONS FROM INFLATION TARGETING EXPERIENCE

I. INTRODUCTION

While some forward-looking U.S. Congressmen have promoted price stability and introduced legislation to make it the primary goal of Federal Reserve monetary policy, many other countries, including Canada, The United Kingdom, New Zealand, Sweden, Spain, Finland, Australia and Israel have moved forward beyond the rhetoric, explicitly adopting price stability as the primary goal for their monetary policy. There is a growing consensus that under current monetary arrangements, the single appropriate goal of monetary policy should be price stability.^{1,2}

There are many important lessons from this surprisingly rich international experience relevant to both U.S. legislators (charged with Federal Reserve oversight) as well as to Federal Reserve policy makers themselves. After briefly summarizing the benefits of price stability, this paper succinctly summarizes these key lessons to highlight possible policy approaches and promote awareness of this important issue.

II. THE RATIONALE FOR PRICE STABILITY

The foreign governments and Central Banks cited above recognize the following well-known benefits of and rationale for price stability:

- **Anchors the Price System:** Recent decades have witnessed both the breakdown of the Bretton Woods System as well as disappointment with the performance of monetary aggregates as guides for monetary policy. This left a fiat money system with no reliable anchor of value. Such an anchor is needed to provide a standard of value, so that comparative values can be established and accurately measured. Price (or inflation) targets resulting in price stability provide such an anchor.
- **Allows the Price System to Function Effectively:** Importantly, price stability enables the price system — the information or signaling mechanism of free market economies — to function effectively by directing resources to their most beneficial use, thereby fostering efficiency.

¹Current monetary arrangements entail a fiat money, flexible exchange rate regime.

²This goal has been explicitly endorsed by a number of Federal Reserve officials including several Federal Reserve Bank Presidents.

- **Promotes Stability and Growth:** By minimizing price volatility, distortions affecting the price system, as well as uncertainty and inflation premiums, price stability not only promotes economic and financial market stability but also lowers interest rates and fosters sustainable economic growth.³ Indeed, a benefit of a credible price stability goal is that market forces could serve as natural stabilizers.
- **Eliminates Distortive Effects of Inflation Interacting with the Tax Code:** Since investors continue to pay income taxes on the inflation component of interest and dividend income as well as capital gains attributable to inflation, price stability would eliminate these and other forms of tax distortion and such “taxation without representation.”
- **Promotes Transparency, Accountability, and Credibility :** Explicitly adopting price stability as the principal monetary policy goal serves to promote transparency, accountability, and credibility to monetary policy. Furthermore, explicit inflation targets reduce incentives of the monetary authority to renege or backslide on its commitment to price stability.⁴

III. LESSONS FROM RECENT INFLATION TARGETING EXPERIENCE

Recognizing these benefits, the governments and central banks of Canada, The United Kingdom, Australia, New Zealand, Sweden, Spain, Israel, and Finland explicitly have adopted targets for price stability as the principal goal of monetary policy.^{5,6} Other countries, such as Germany and Italy, also have embraced price stability.

There are many important lessons from this recent international experience with targets for price stability. These lessons, summarized in the following paragraphs, should be of special interest to both legislators interested in monetary policy oversight as well as to monetary policy makers themselves.

³Recent empirical research has documented a negative relationship between inflation and economic growth. See, for example, Robert J. Barro, “Inflation and Economic Growth,” NBER Working Paper 5326, October 1995; Brian Motley, “Growth and Inflation: A Cross Country Study,” Federal Reserve Bank of San Francisco Working Paper 94-08; and Stanley Fischer, “The Role of Macroeconomic Factors in Growth,” NBER Working Paper No. 4565, December 1993.

⁴The “time inconsistency” problem arises when inflation is reduced, but short-sighted policy makers recognize that surprise (unexpected) expansionary policies can have significant short-term economy-boosting effects. In short, as inflation is reduced, incentives for policy makers to unexpectedly stimulate the economy increase. Pre-commitments to explicit price targets reduce these perverse incentives.

⁵The reasons these governments opted for explicit price stability goals included disappointment with fixed exchange rate arrangements and/or monetary aggregate targeting.

⁶Sweden successfully adopted price stability as a goal of monetary policy in the 1930s. See, for example, Robert Keleher, “The Swedish Market Price Approach to Monetary Policy of the 1930's,” Contemporary Policy Issues, Vol. IX, No.2, April 1991.

LESSON #1: THE SINGLE EXPLICIT GOAL OF PRICE STABILITY CAN BE SUCCESSFULLY IMPLEMENTED.

The single monetary policy goal of price stability has been successfully implemented in a number of countries. Explicit, quantifiable inflation targets have been adopted by a number of countries including Canada, The United Kingdom, New Zealand, Sweden and Finland. Evidence to date indicates these experiments have been quite successful. Those countries adopting a price stability goal, for example, significantly have improved their inflation performance. Specifically, they have all dramatically lowered their inflation rates since adopting targets for inflation, often to lower rates not observed for decades. Several of these countries reached their inflation objectives well ahead of schedule; inflation targets have often been met or undershot. Preliminary studies have shown that those countries adopting explicit inflation targets have outperformed other countries not only in terms of lowering inflation but in a number of other criteria as well.⁷

This evidence underscores the argument that explicit, quantifiable goals of price stability can be implemented successfully. While implicit goals of price stability may also work, in some cases it appears that explicit targets can help further to achieve price stability in a number of ways discussed below; however, price stability goals must be credible. Many of the lessons enumerated below provide guidelines to enhance the credibility, and therefore the likely success, of inflation targets.

LESSON #2: TARGETS FOR PRICE STABILITY CAN TAKE THE FORM OF INFLATION TARGETS RATHER THAN PRICE LEVEL TARGETS.

Central Banks recently embracing explicit targets for price stability have adopted inflation targets rather than price level targets.⁸ There are important differences between these two forms of targets for price stability. With an increase in prices, for example, price level targets require an offsetting decline in (deflation of) prices whereas inflation targets merely require a cessation of the increase. This difference has several important implications. Inflation targets, for example, allow for more policy flexibility in responding to (one-time) supply-side shocks since no price deflation (and hence less real economic disruption) is required. Because of this enhanced policy flexibility, inflation targets are viewed as more realistic politically and hence, more credible. But because offsetting deflation is not required by inflation targets, these targets also embody “base drift” (an ever-increasing price level) and greater longer term variance and uncertainty of prices.⁹

⁷See, for example Bennett T. McClellan, “Inflation Targeting in Canada, New Zealand, Sweden, The United Kingdom, and in general.” NBER Working Paper No. 5579, May 1996, p.9.

⁸The price stabilization regime adopted in Sweden during the 1930s, however, focused on price level stability as its primary goal (Keleher *op.cit.*).

⁹Inflation targets imply that the price level becomes “non-stationary”; once disturbed, the price level does not return to its previous level. Some economists argue that inflation targets can be an effective first step to price level targeting at a later date.

LESSON #3: THE CONSUMER PRICE INDEX (CPI) CAN BE USED AS THE INFLATION TARGET.

Although countries adopting explicit inflation targets recognize well-known mis-measurement biases of consumer price indices, they all have used the CPI (or variants of the CPI) as the basis of their inflation target. These biases are viewed as being relatively minor and outweighed by the CPI's practical advantages: namely, its familiarity, ready availability, minor revisions, and convenience in communication with the public.

Additionally, most countries using CPI targets adjust the index for volatile components and non-monetary influences. Adjustments have often been made for volatile food and energy components as well as for housing costs or mortgage payments and indirect taxes. Despite imperfections, therefore, the CPI target is viewed as practical and useable. Should the U.S. CPI be revised to account for measurement biases, an adjusted version may still be a viable target. But alternative price indices may also be workable and not precluded from consideration.

LESSON #4: INFLATION TARGETS SHOULD TAKE THE FORM OF BANDS RATHER THAN POINT ESTIMATES.

Countries adopting explicit inflation targets generally have specified target bands (or tolerance intervals) rather than point estimates for their inflation targets. These bands allow for the realities of measurement imprecision as well as unexpected shocks to specific prices. Accordingly, existing inflation targets normally have a tolerance width of about two percentage points.

In addition to tolerance bands and above-cited adjustments to the CPI, some countries (e.g., New Zealand) have provided for escape clauses which allow for further modifications or exceptions in cases of special circumstances. These features all help to make adherence to explicit targets more believable and hence more credible.

LESSON #5: ESTABLISHING THE CREDIBILITY OF A PRICE STABILIZING MONETARY POLICY TAKES TIME.

Experience in several countries indicates that establishing the credibility of inflation targeting arrangements is not easy and occurs only over an extended time frame.¹⁰ The mere announcement of such targets does not by itself readily lend credibility to inflation targets. It is only after a record of price stability and the establishment of complementary institutional arrangements that credibility

¹⁰The credibility of price stabilizing policy refers to the public's belief that the central bank will adhere to the policy consistently. Such credibility is important because it influences expectations affecting interest and exchange rates and thereby affects the cost of reducing inflation in terms of lost output and employment.

develops, implying that inflationary expectations and risk premiums of interest rates will disappear only slowly over time.¹¹

LESSON #6: INFLATION OBJECTIVES SHOULD BE MULTI-YEAR IN NATURE SO AS TO ALLOW FOR A GRADUAL ADJUSTMENT TO PRICE STABILITY.

Countries adopting inflation targets have employed a multi-year time frame in establishing their inflation objectives so as to allow for a gradual, extended adjustment to price stability. An extended time period is essential for complete disinflation to occur. Such an approach considers not only the long lags of monetary policy on inflation, but also the long-term contracts and the lags in the adjustment of both behavior and inflationary expectations. Establishing multi-year objectives increases the chances of success by allowing for a gradual conditioning of expectations; hence, these objectives minimize economic disruption while enhancing the credibility of inflation goals.

LESSON #7: INFLATION TARGETS SHOULD BE ACCOMPANIED BY MORE OPEN, TRANSPARENT MONETARY POLICY REPORTING BY CENTRAL BANKS.

Central Banks adopting explicit inflation targets have improved their communication and reporting about the intent of and progress toward achieving their stated targets. These banks recognize that for their policies to be successful, their policy goals should be transparent; objectives should be understandable, simple, explained, justified, and restated frequently. Accordingly, these banks have more regularly issued increasingly informative inflation reports. The Bank of England and the Central Bank of New Zealand, for example, issue quarterly inflation reports whereas the Swedish Riksbank issues such a report three times a year. These reports are useful in both publicizing and explaining policy goals to the public as well as to the financial press. The reports sometimes present an explicit inflation outlook and spell out ongoing inflation developments. Such improved communication about both policy targets and the actual inflation record is an essential element in improving the credibility of inflation targets, thereby reducing the costs of disinflation.

LESSON #8: THE INFLATION TARGETS FOR MONETARY POLICY SHOULD BE CONSISTENT WITH OTHER MACROECONOMIC POLICIES OF THE GOVERNMENT.

Most countries adopting explicit inflation targets recognize that monetary policy goals of price stability should be consistent with other macroeconomic policies of the government. A disinflation monetary policy program which is inconsistent with other macroeconomic policies may not be credible and hence may be more costly to implement than otherwise would be the case.

Exchange rate objectives, for example, should be subordinate to inflation targets for the latter to be credible, implying that the priorities of the Treasury Department (or Minister of Finance) should be

¹¹See, for example, John Judd, "Inflation Goals and Credibility," *Weekly Letter*, Federal Reserve Bank of San Francisco, Number 95-19, May 12, 1995.

made compatible with central bank objectives. Similarly, if levels of public spending and budget deficits are high and increasing, the credibility of price stability goals may be difficult to maintain.^{12, 13}

One element of government debt policy is particularly notable in this regard. Specifically, issuing inflation indexed bonds adds to the credibility of monetary policy aimed at price stability because such debt issuance removes government incentives to use inflation as a financing tool (at least for that portion of the debt that is indexed). Indexed debt cannot be inflated away, and such debt shifts the risks of inflation onto the issuer (government) as opposed to the debt holder.¹⁴ Accordingly, incentives for inflation are reduced and the credibility of price stability goals is enhanced.

Notably, most countries recently adopting inflation targets also issue inflation indexed debt. The United Kingdom, New Zealand, Canada, and Sweden, for example, all issue indexed debt and all have had successful inflation targeting experiences.

LESSON #9: MANDATING THE GOAL OF PRICE STABILITY SHOULD NOT BE ACCOMPANIED BY DIRECTIVES ON SPECIFIC PROCEDURES AS TO HOW THE CENTRAL BANK SHOULD ACHIEVE PRICE STABILITY.

Successful experience in implementing price stability as the monetary policy goal has been associated with the use of several (intermediate) policy indicators or guides rather than a single (intermediate) policy target. Indeed, adoption of inflation targets represents movement away from a rigid adherence to explicit intermediate policy targets. Thus, successful approaches to price stability involve instrument independence but not goal independence; i.e., a mandated price stability goal but central bank independence as to what procedures or guides to use to best achieve this goal.

More specifically, successful pursuit of inflation targets has not been achieved by targeting monetary aggregates, interest rates, or real economic activity; i.e., unemployment rates or economic growth. Some successful price stabilizing central banks, however, have used market price variables such as exchange rates, commodity prices, or measures of price expectations as policy guides.¹⁵

¹²Pressures to monetize the debt and/or deficit may increase with rising interest rates.

¹³This is the rationale underlying European debt and deficit criteria (under the Maastricht Treaty) for entry to the European Monetary Union. This also underpins the German desire for a European “Stability Pact” agreement to bolster the credibility of the EMU.

¹⁴As Treasury’s Lawrence Summers has stated, “Governments that sell inflation insurance will tend to avoid inflation.” Lawrence Summers, “Comments on Why are Central Banks Pursuing Long-Run Price Stability,” Federal Reserve Bank of Kansas City Symposium on “Achieving Price Stability,” Jackson Hole, Wyoming, August 29-31, 1996.

¹⁵See, for example, Keleher, *op cit*; Charles Freedman, “What Operating Procedures Should be Adopted to Maintain Price Stability? Practical Issues,” Paper presented at Federal Reserve Bank of Kansas City Conference on “Achieving Price Stability,” Jackson Hole, Wyoming, August 29-31, 1996.

SUMMARY AND CONCLUSION

A number of countries recognize the many potent benefits of price stability and consequently have explicitly adopted it as the principal goal of monetary policy. To date, preliminary evidence suggests the inflation targeting experience of many foreign central banks has been quite successful and promises to continue to provide excellent results. A number of very important lessons can be learned from the accumulated knowledge and experience in The United Kingdom, New Zealand, Australia, Spain, Canada, Sweden, Finland, and other countries. This paper briefly summarized these key lessons with the hope of improving congressional legislative initiatives dealing with the goal of price stability for U.S. monetary policy.

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