Journal of Monetary Economics 49 (2002) 1521–1538

Journal of MONETARY ECONOMICS

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The effect of inflation targeting on the behavior of expected inflation: evidence from an 11 country panel ☆

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Received 7 December 1999; received in revised form 12 September 2001; accepted 15 November 2001

Abstract

Inflation targets were introduced in the 1990s in Australia, Canada, New Zealand, Sweden and the United Kingdom. Change in the behavior of expected inflation in the five targeting countries is measured in a panel that includes six non-targeting countries: France, Germany, Italy, the Netherlands, Japan and the United States. The level of expected inflation in targeting countries falls after the announcement of targets with controls for country effects, year effects, ongoing inflation reduction and the business cycle. Neither the variability of expected inflation nor the average absolute forecast error falls after the announcement of targets with controls for the level and variability of past inflation. Both targeting and non-targeting countries experience unexpected disinflation.

JEL classification: E52; E58

Keywords: Inflation targets; Expected inflation

☆I want to thank Nathan Braun for excellent research assistance and Susan Johnson, Pierre Siklos, Angelo Melino and the referees and editor for their comments. The support of an Interdisciplinary Grant from the Social Sciences and Humanities Research Council of Canada, administered by the Wilfrid Laurier University Research Office, is acknowledged. I also thank the Faculty of Economics and Politics at the University of Cambridge, England for their hospitality when this project began.

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0304-3932/02/$ - see front matter
PII: S0304-3932(02)00181-2

1. Introduction

In the 1990s a number of countries used announcements of explicit numerical targets for inflation as a key component of monetary policy. Inflation targets, and other monetary reforms often implemented at the same time, were adopted for three reasons: to communicate more clearly the goals of monetary policy; to create accountability for the achievement of these goals and to alter expectations of inflation.[1] This paper measures change after the announcement of targets in three aspects of the behavior of expected inflation: the level of expected inflation; the standard deviation of expected inflation; and the average absolute size of inflation forecast errors. The behavior of expected inflation in five countries with targets (Australia, Canada, New Zealand, Sweden and the United Kingdom) and six countries without targets (France, Germany, Italy, the Netherlands, Japan and the United States) is measured in a panel of data from 1984 to 2000.

The results show that the observed reduction in expected inflation in an inflation-targeting country is not fully explained by a targeting country's recently observed reduction in actual inflation, an ongoing increase in unemployment in that country or other factors reducing inflation throughout the world. The additional reduction in the level of expected inflation is an important success of inflation targets.

Once the level of actual inflation falls and a country re-establishes a history of inflation control, uncertainty about future inflation falls, this effect is present in both targeting and non-targeting countries. But there is little evidence that the period after the announcement of targets is associated with a further reduction in uncertainty about future inflation. There is very little evidence that average absolute forecast errors were lower in targeting countries than in non-targeting countries. Both targeting and non-targeting countries experienced unexpected disinflation. There is the strong evidence noted above that targets reduced the level of expected inflation in targeting countries. Bernanke et al. (1999) note that unexpected disinflation is common at introduction of targets. These two results are reconciled if the size of the reduction in expected inflation associated with targets is sufficient only to reduce the magnitude of unexpected disinflation in targeting countries, but did not reduce forecast errors in targeting countries relative to forecast errors in the non-targeting countries. Inflation targets are a success in the sense that forecast errors in targeting countries were smaller than they would have been in the absence of targets.

Two approaches have been taken in the literature to ask if target announcements alter expectations of inflation, a direct approach and an indirect approach. Bernanke et al. (1999) use the indirect approach. Following Ball (1994), they ask if sacrifice ratios for individual countries, lost output per unit of actual reduction in inflation, are lower after targets. No clear evidence of lower sacrifice ratios is found. Bernanke et al. (1999) and Groenveld (1998) also study the actual inflation process in

[1] Bernanke et al. (1999) present individual case studies of the five targeting countries used in my study (as well as Israel and Spain). They document carefully the extent of other reforms associated with the announcement of targets in these countries. My methodology treats the announcement of inflation targets as the primary change in policy.