Inflation targeting and inflation convergence: International evidence[☆]

Philip Arestis[a], Georgios Chortareas[b,d,*], Georgios Magkonis[c], Demetrios Moschos[d]

[a] Cambridge Centre for Economic and Public Policy, Department of Land Economy, University of Cambridge, UK
[b] Department of Management, King's College London, Franklin-Wilkins Building, 150 Stamford Street, London SE1 9NH, UK
[c] School of Management, University of Bradford, Emm Lane, BD9 4JL Bradford, UK
[d] Department of Economics, University of Athens, 105 59 Athens, Greece

ARTICLE INFO

ABSTRACT

We examine whether the inflation rates of the countries that pursue inflation targeting policies have converged as opposed to the experience of the OECD non-inflation targeters. Using a methodology introduced by Pesaran (2007a), we examine the stationarity properties of the inflation differentials. This approach has the advantage of avoiding setting arbitrarily a specific country as the benchmark economy. Our results indicate that the inflation rates converge irrespective of the monetary policy framework.

© 2014 Elsevier B.V. All rights reserved.

1. Introduction

Since the late 1980s an increasing number of countries have adopted explicit inflation targets as a means for anchoring expectations and securing price stability. In addition to the theoretical research

that establishes analytically the rationale for inflation targeting (e.g. Svensson, 2011), substantial evidence has been produced on the effects of inflation targeting on the inflation rate, its volatility, and output growth, focusing on both the time series and the cross sectional dimension. The results are far from conclusive, however, with the evidence upon the effects of targets on inflation being mixed. Extensive evidence has been produced emphasising the importance of targets in the reduction of both the inflation level and its persistence (e.g. Hyvonen, 2004; Johnson, 2002; Levin et al., 2004; Lin and Ye, 2007; Goncalves and Salles, 2008). Nevertheless, other analyses suggest that the declining tendency of inflation in several inflation targeting countries cannot be attributed to the inflation targeting (e.g. Ball and Sheridan, 2005; Ball, 2010; Genc et al., 2007; Angeriz and Arestis, 2007b, 2008).

Another line of research considers the process of inflation convergence across countries in a time series context among countries that may share the same policy regime (e.g. Busetti et al., 2007 consider European counties), or not (e.g. Crowder and Phengpis, 2007). The focus of this literature, however, is on inflation convergence and does not account for the implications of inflation targeting.

In this contribution we consider whether the inflation rates in the inflation targeting and non-inflation targeting OECD economies converge using the pair-wise stationarity testing procedure of Pesaran (2007a) on bilateral inflation differentials. We also employ some recently developed panel unit-root tests for robustness purposes that allow us to consider whether the inflation convergence process differs for inflation targeters and non-targeters. The results indicate that convergence is evident regardless of whether central banks announce explicit inflation targets or not. This evidence is in line with findings from earlier literature that employs different methodologies and indicates that the inflation targeting regimes by themselves cannot explain the improved inflation performance observed during the periods of inflation targeting (e.g. Ball and Sheridan, 2005; Angeriz and Arestis, 2008). Overall, this study contributes towards answering one of the key enduring questions about inflation targeting, namely whether the "improvements in performance observed in countries that have adopted inflation targeting [are] the direct result of the change in policy regime" (Bernanke and Woodford, 2005, p. 2).

The reminder of the paper is structured as follows. The following section reviews the relevant literature on inflation targeting and on inflation convergence; it also provides the reasons behind investigating inflation convergence among the countries selected for the purposes of this contribution. Section 3 describes the econometric methodology. Section 4 discusses the findings, and, finally, Section 5 summarises and concludes.

2. Background literature

A large number of studies have examined the effects of inflation targeting on macroeconomic performance. Early studies such as those of Neumann and von Hagen (2002), Hu (2003), and Levin et al. (2004) find that adopting inflation targets reduces both the average level and the variance of inflation. The contribution of inflation targeting in reducing inflation rates is corroborated by evidence suggesting that it has also been instrumental in reducing inflation expectations (e.g. Johnson, 2002, 2003; Levin et al., 2004; Gurkaynak et al., 2008).

Interestingly enough those positive results on inflation targeting performance do not seem to account for any potential cost of output. Furthermore, evidence exists showing an overall improvement in the growth performance of inflation targeters (e.g., Mollick et al., 2011). Moreover, the adoption of inflation targets appears to be associated with a reduction in output growth volatility (e.g. Goncalves and Salles, 2008).

More recent research outcomes, nonetheless, produce mixed results in terms of the impact of inflation targeting. A spate of papers suggests that inflation targeting has made a difference only in developing and emerging economies but not in advanced economies. Lin and Ye (2007) focusing on seven industrialised inflation targeters find that adopting inflation targets does not lead to the reduction of inflation and its variability. On the contrary, repeating the same analysis for thirteen developing inflation targeters (Lin and Ye, 2009), shows that the effect of inflation targeting in lowering inflation and its volatility is large and significant. The analyses of Mishkin and Schmidt-Hebbel (2007) and Walsh (2009) support further the proposition that inflation targeting seems to play a role in emerging markets but it does not matter in advanced countries. Angeriz and Arestis (2007a) consider