Optimal and efficient monetary policy rules in a forward-looking model

Alfred V. Guender *

*University of Canterbury, Christchurch, New Zealand

Received 9 July 1999; accepted 30 January 2001

Abstract

This paper shows that two monetary policy strategies—hybrid nominal income targeting and strict inflation targeting—are efficient strategies of monetary policy in the sense that they are special cases of the optimal monetary policy strategy. In the case of a hybrid nominal income targeting strategy, the policymaker chooses a unitary trade-off between real output and the rate of inflation, while under strict inflation targeting the policymaker attaches a zero weight on output in the optimal policy rule. © 2002 Elsevier Science Inc. All rights reserved.

JEL classification: E5

Keywords: Forward-looking; Optimal and efficient policy; Inflation targeting; Hybrid nominal income targeting

1. Introduction

Current discussions of issues in monetary policy share a number of characteristics. First, there has been a move toward a new framework where the rate of inflation—and not the price level—features prominently. The new approach emphasizes simplicity over complexity. It comprises a simple two-equation IS-Phillips Curve framework where real output and the rate of inflation enter as the two endogenous

---

*Fax: +64-3-364-2635.
E-mail address: a.guender@econ.canterbury.ac.nz (A.V. Guender).
variables. Practical considerations have led to the omission of the LM relation from
the analysis. As most central banks use a short-term nominal interest rate to set the
stance of monetary policy, the inclusion of money demand in the analysis will merely
serve to determine the volume of the money supply that is consistent with the set in-
terest rate. 1

Despite the adoption of an alternative framework for the analysis of monetary
policy issues, there remains some disagreement among economists about the proper
specification of the underlying structural relations. Of the competing specifications,
two have attracted particular attention. One approach assumes that real output and
the rate of inflation exhibit persistence, that is, that current real output and the rate
of inflation are tied to their past behavior. In the literature this specification is re-
ferred to as “backward-looking”. 2 In sharp contrast, the “forward-looking” speci-
fication adopts a rational expectations framework where current real output and the
rate of inflation, respectively, depend on the next period’s expected level. 3

Another characteristic common to current and recent contributions to the liter-
ature is the renewed interest in the properties of monetary policy rules. In view of the
widespread disagreement among economists about the proper specification of mac-
roeconomic relationships, efforts have been made to examine the properties of sim-
ple, tractable rules across a wide variety of macroeconomic models. The idea here is
to examine the robustness of candidate rules for inflation targets, price level targets,
nominal income targets, exchange rate targets, and other rules such as the Taylor
Rule. 4 For instance, Ball (1997) finds nominal income targeting to be inconsistent
with the optimal policy rule in a simple backward-looking model. Indeed he labels
nominal income targeting a disastrous strategy of monetary policy as it leads to in-
stability in both the rate of inflation and the output gap. This result is challenged by
McCallum (1997) who attributes Ball’s findings to the backward specification of the
Phillips Curve. 5

The current paper takes the forward-looking model as the baseline model to de-
rive the optimal monetary policy rule. The paper takes the view that optimal mon-

---

and McCallum and Nelson (1999) amongst others.

2 The papers by Taylor (1995), Ball (1997) and Svensson (1997, 1999) fall into this category.

3 Examples of this approach are McCallum (1997), McCallum and Nelson (1999), Clarida et al. (1999)
and Woodford (1999).

4 A recent comprehensive contribution in this area is the papers presented at a symposium of the
monetary policy rules also appears in Taylor (1999). See also Bryant et al. (1993), Henderson and
McKibbin (1993) and Taylor (1993) for earlier assessments of the empirical properties of various monetary
policy rules. Analyzing solely the merits of nominal income targeting, Rudebusch (2000) finds that this
strategy receives only modest empirical support from US data.

5 For a comparative analysis of various monetary policy rules in forward- and backward-looking
models, the reader is referred to Guenêd (2000). He shows that the instability of nominal income targeting
in the backward-looking specification disappears if the policymaker chooses to target a hybrid form of
nominal income.
دریافت فوری
متن کامل مقاله

امکان دانلود نسخه تمام متن مقالات انگلیسی
امکان دانلود نسخه ترجمه شده مقالات
پذیرش سفارش ترجمه تخصصی
امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
امکان دانلود رایگان ۲ صفحه اول هر مقاله
امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
دانلود فوری مقاله پس از پرداخت آنلاین
پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات