Available online at www.sciencedirect.com
ScienceDirect
Journal of International Money and Finance 27 (2008) 40–53
Journal of International Money and Finance
www.elsevier.com/locate/jimf

Regime shifts and the stability of backward-looking Phillips curves in open economies

Efrem Castelnuovo*

Department of Economics, University of Padua, Via del Santo 33, I-35123 Padova (PD), Italy

Abstract

We assess the stability of open-economy backward-looking Phillips curves estimated over two different exchange rate regimes. We calibrate a new-Keynesian monetary policy model and employ it for producing artificial data. A monetary policy break replicating the move from a Target-Zone regime to a Free-Floating regime implemented in Sweden in 1992 is modeled. We employ two different, plausibly calibrated Taylor rules to describe the Swedish monetary policy conduct, and fit a reduced-form Phillips curve to the artificial data. While not rejecting the statistical relevance of the Lucas critique, we find that its economic importance does not seem to be overwhelming.
© 2007 Published by Elsevier Ltd.

JEL classification: E17; E52; F41

Keywords: Lucas critique; Forwardness; Backward-looking Phillips curves; Exchange rates; Chow test

1. Introduction

Since the publication of the seminal paper by Lucas (1976), many researchers have explicitly embedded forward-looking expectations in their policy models. One of the fields that has been intensely affected by this push towards micro-foundation is the monetary one (e.g. Woodford, 2003). Interestingly, a different strand of this literature (e.g. Rudebusch and Svensson, 1999, 2002; Ball, 1999, 2000; Onatski and Stock, 2002; Laubach and Williams, 2003; Fagan

* Tel.: +39 049 827 4257; fax: +39 049 827 4211.
E-mail address: efrem.castelnuovo@unipd.it

0261-5606/$ - see front matter © 2007 Published by Elsevier Ltd.
doi:10.1016/j.jimonfin.2007.09.004

et al., 2005) has relied on ad-hoc backward-looking frameworks. In fact, backward-looking models tend to offer quite a good fit of the data. Moreover, their impulse responses closely resemble those stemming from structural VARs, an issue that pure forward-looking models have some troubles in dealing with (Estrella and Fuhrer, 2002).

Evidently, at a theoretical level backward-looking models are affected by the Lucas (1976) critique. The argument goes as follows. If agents are forward-looking they will adjust their expectations once a policy change is credibly announced. As a consequence, *reduced-form* coefficients will be unstable under a change in the policy regime. Then, a policy analysis performed with reduced-form coefficients may be severely mis-leading. This is true in principle: but how important is this change in practice?

While some researchers have undertaken empirical efforts to answer this question in a closed-economy set-up (e.g. Lindè, 2001; Estrella and Fuhrer, 2003; Rudebusch, 2005), to the best of our knowledge the only contribution dealing with this issue in an open-economy framework dates back to Taylor (1989). This is somewhat surprising, given the increasing openness in terms of trade and flows of resources conveyed in the international financial markets observed in several countries in the last decades (Lane, 2001).[1]

The aim of this paper is that of 'updating' Taylor's (1989) contribution. Taylor (1989) employs an estimated macro-model for simulating the shift from a 'fixed' to a 'flexible' nominal exchange rate in some industrialized countries. Once done so, he fits some reduced-form schedules (mainly demand and supply curves) to such simulated data, and compares the estimated parameters under the first regime to those estimated under the second one. Taylor (1989) observes that the differences in magnitude between those parameters are not really large, and concludes that the Lucas critique does not find a large support in the data. Notice that, in performing his analysis, Taylor (1989) does not use any statistical tool for assessing the stability of the estimated coefficients.

We refine the contribution by Taylor (1989) along two main dimensions. First, we employ a modern new-Keynesian DSGE open-economy monetary policy model in the spirit of the one proposed by Svensson (2000). In this model, the monetary policy makers follow a Taylor-type rule and aim at minimizing the oscillations of inflation, real GDP, and nominal exchange rate around their targets. As a second difference with respect to Taylor (1989), we assess both the *statistical* and the *economic* relevance of the Lucas critique. In this sense, we line up with Rudebusch (2005) in acknowledging the importance of employing a formal test for assessing the instability of the estimated schedules from a *statistical* perspective. Importantly, as underlined by Rudebusch (2005) this is not the only dimension one may want to consider in this kind of exercise. In fact, the macroeconometrician is also called to evaluate the pros and cons of employing a reduced-form model estimated under a policy break from an *economic* perspective. To do so, we compare the mean values and the distributions of the estimated coefficients in the two different subsamples we focus on.

For our exercise to be interesting, we need to calibrate our model in a plausible fashion. Interestingly, Sweden experienced a dramatic change in regime in 1992, when it moved from an exchange rate target-zone (TZ hereafter) to a flexible exchange rate regime (FF henceforth). Cúrdia and Finocchiaro (2005) split the Swedish sample 1980Q1–2003Q3 into two subsamples, i.e. 1980Q1–1992Q4 (TZ) and 1993Q1–2003Q3 (FF), estimate regime-specific Taylor

[1] Here we refer to contributions that are very closely related to our object of investigation, i.e. the empirical relevance of the Lucas critique for *backward-looking monetary policy* models. In general, the quantitative importance of the Lucas critique has been subject to wide attention since 1976. For a survey, see Ericsson and Irons (1995).

دریافت فوری ← متن کامل مقاله

ISIArticles
مرجع مقالات تخصصی ایران

- ✓ 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