The Timeless Perspective vs Discretion: Theory and Monetary Policy Implications for an Open Economy

By

Alfred V. Guender

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Abstract:

This paper proposes an open-economy Phillips Curve that features a real exchange rate channel. The resulting target rule under optimal policy from a Timeless Perspective (TP) involves additional history dependence in the form of lagged inflation. The target rule also depends on the discount factor as well as IS and Phillips Curve parameters. This is in sharp contrast to a closed economy where the target rule depends only on the change in the output gap, the current rate of inflation and the structural parameter in the Phillips Curve. Because of the additional history dependence in an open economy, price level targeting is no longer consistent with optimal policy. If a real exchange rate channel does not exist in the Phillips Curve, monetary policy eases in the wake of a positive cost-push disturbance under policy from a TP and is thus diametrically opposed to same under discretion.

Key Words: Timeless Perspective, Discretion, Price Level Targeting, Exchange Rate Channel.

JEL Classification Codes: E52, F41

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* Department of Economics, University of Canterbury, Private Bag 4800, Christchurch, New Zealand.
E-mail: alfred.guender@canterbury.ac.nz Phone: (64)-3-364-2519. Fax: (64)-3-364-2635.

Summary:

This paper discusses several aspects of policymaking that arise in an open economy framework. The paper begins with analyzing the conduct of optimal monetary policy from a timeless perspective and under pure discretion in a simple forward-looking open economy framework. Central to our discussion of optimal policy in an open economy is a Phillips Curve that features a real exchange rate channel. This exchange rate channel appears in the Phillips Curve because domestic firms are concerned about their competitiveness at home and in world markets where their products compete with those produced by foreign firms. An important objective of a typical domestic firm is to avoid fluctuations in its firm-specific terms of trade. Hence an incipient rise in the foreign price of the competing foreign good or a rise in the nominal exchange rate leads the typical domestic firm to raise the price of its output. This response pattern at the firm level leads to the appearance of the (negative) expected change of the real exchange in the aggregate Phillips Curve.

The existence of a real exchange rate channel in the Phillips Curve has an important consequence for the conduct of optimal policy in an open economy. This paper shows that the optimal target rule in an open economy under both policy from a timeless perspective and pure discretion, respectively, is distinctly different from the target rule in a closed economy if a real exchange rate channel is operative in the Phillips Curve. Under pure discretion the target rule locks the contemporaneous rate of inflation and the output gap into a systematic relationship. In stark contrast to its closed economy counterpart, the coefficient on the output gap in the open economy target rule depends on demand-side parameters in addition to the two parameters that appear in the Phillips Curve. The coefficient on the output gap is also smaller in the open economy rule than in the closed economy rule, suggesting that that policymaker attaches less weight to the output gap in the conduct of optimal discretionary policy in an open economy.

The target rule in an open economy under policy from a timeless perspective is more complex than the target rule under pure discretion. This rule depends not only on parameters that appear in the IS relation and the Phillips Curve but also on the discount factor. The open economy target rule is history-dependent too but differs from its closed economy counterpart in a critical way: the open economy target rule under policy from a timeless perspective also features the lagged rate of inflation in

addition to the lagged output gap. However, unlike the output gap, the rate of inflation does not enter the target rule in first-difference form.

The examination of optimal policy in a forward-looking open economy framework brings out a number of additional results that in turn have important implications for policymaking in an open economy. Comparing policy under a timeless perspective to discretion, we find that the former dominates the latter unambiguously. Policy under the timeless perspective also shields the target variables – the output gap and the domestic rate of inflation - better than discretion from the impact effects of all disturbances. Yet the overall variability of the output gap and the real exchange rate is larger under the timeless perspective than under discretion. Under policy from a timeless perspective, an adverse cost-push shock prompts the policymaker to “lean with the wind”, i.e. lower the nominal interest rate provided that a real exchange rate channel in the Phillips Curve does not exist. If this channel exists, then the policymaker raises the interest rate. Such an ambiguous response cannot occur under discretion irrespective of whether a real exchange channel exists or not.

A final noteworthy finding concerns price level targeting in an open economy framework. Woodford (1999) and Vestin (2006) argue that in a simple closed economy forward-looking model, price level targeting is consistent with optimal policy from a timeless perspective. This result does not carry over to the open economy framework proposed in this paper. There is a simple explanation for this result. The target rule under policy from a timeless perspective depends on the lagged rate of inflation. This has the effect of augmenting the history-dependence of optimal policy and rules out expressing the target rule governing price level targeting in such a way so as to be consistent with the target rule underpinning optimal policy from a timeless perspective. With the targeting rules being incongruous, the delegation of a price level target to a central banker with the requisite aversion to price level variability does not conform to optimal policy from a timeless perspective in an open economy even if the shocks follow a white noise process.

Ref:

Vestin, D. (2006). “Price-Level Targeting Versus Inflation Targeting,” *Journal of Monetary Economics* 53 (7), 1361-1376.

Woodford, M. (1999). “Commentary: How Should Monetary Policy Be Conducted in an Era of Price Stability?” in *New Challenges for Monetary Policy*: A

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