Disinflation programs under policy uncertainty

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Abstract

This paper uses a model with endogenous labor supply to study exchange rate-based inflation stabilization programs under uncertainty regarding the duration of the program. The paper finds that the output and consumption dynamics induced by these programs are extremely sensitive to whether the programs are perceived to have a chance of continuing permanently or whether they are expected to end in finite time. It is shown that the business cycle dynamics for output that are typically associated with these programs arise only when the policy is expected to collapse in finite time. Furthermore, for the purposes of rationalizing the stylized facts, the uncertain duration channel appears to induce a fundamental tension between the consumption dynamics and the current account dynamics. These results raise doubts regarding the explanatory power of the uncertain duration channel in particular and the credibility channel in general. © 2000 Elsevier Science B.V. All rights reserved.

1. Introduction

Since the late 1970s a large literature has emerged on exchange-rate-based inflation stabilization (ERBS) programs that have been implemented in a number of countries since that time. The cornerstone of all these programs was the use of

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the exchange rate as a nominal anchor and the preannounced fixing of its time path in order to reign in chronically high two or three digit inflation rates. Kiguel and Liviatan (1992) and Végh (1992) have shown that the stylized facts of these episodes are: (a) an expansion in consumption, output and investment; (b) a deterioration of the current account and the trade account; (c) an appreciation of the real exchange rate; and (d) a recession towards the end of the stabilization programs.

The literature has proposed, broadly speaking, four alternative explanations for the stylized facts. First, Dornbusch (1982) and Rodriguez (1982) have argued that in the presence of price inertia a cut in the devaluation rate causes the real interest rate to drop. This acts as the spark to real activity.[1] Second, Calvo (1986) and Calvo and Végh (1993) have shown that in the event of a temporary stabilization, individuals would engage in intertemporal consumption substitution towards the present in order to take advantage of the lower transactions costs in the present relative to the future. This causes a demand driven upswing in economic activity. Third, Lahiri (1995a), Roldos (1995) and Uribe (1997) argue that permanent cuts in the devaluation rate could generate the observed stylized facts due to supply-side adjustments. Fourth, De Gregorio et al. (1998) show that wealth effects can give rise to a boom-recession cycle even in fully credible programs if (S,s) rules govern the behavior of durable goods.

Some recent quantitative work on ERBS programs has shown that most of the existing theoretical explanations of the ERBS syndrome which rely on imperfect credibility have difficulty in matching the quantitative magnitudes observed in the data. Thus, Reinhart and Végh (1995) show that the simple temporariness hypothesis requires huge and unrealistic declines in nominal interest rates in order to account for the observed consumption booms since this channel relies on intertemporal consumption substitution for generating the consumption boom. Existing estimates of the intertemporal substitution parameter indicate that it is not too large. Rebelo and Végh (1995) show that even the introduction of supply-side channels to the simple endowment economy model is insufficient to generate the size of the actual consumption boom.

Given the disappointing quantitative predictions of these models there has been an increasing recognition of the need to augment these models by relaxing the perfect foresight assumption which is standard in the entire literature described above. The desire to relax the perfect foresight assumption stems from two factors. First, it lends realism to the analysis. Second, uncertain program duration generates wealth effects continuously over time as new information is received at

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[1]Calvo and Végh (1994) show that in a utility maximizing framework with nominal rigidities, a permanent reduction in the devaluation rate causes a consumption boom only if the elasticity of intertemporal consumption substitution exceeds the intratemporal elasticity of substitution between traded and non-traded goods. Econometric estimates of the two elasticities indicate that the magnitudes are more likely to run the other way (see Ostry and Reinhart (1992)).