Disinflation and the supply side

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Abstract

This paper studies the dynamics associated with permanent and temporary reductions in the devaluation rate. The analysis uses an intertemporal optimizing model of a small open economy with imperfect capital markets and endogenous labor supply. With a constant capital stock, the model predicts an initial reduction in real wages and an expansion in output. Consumption falls on impact but increases afterward. In addition, with a temporary shock, a current account deficit emerges and a recession sets in at a later stage. With endogenous capital accumulation, numerical simulations show that the model is also capable of predicting a boom in investment. © 2005 Elsevier Inc. All rights reserved.

1. Introduction

Stabilization programs based on the use of the exchange rate as a nominal anchor have often been characterized by a boom-recession cycle, a real exchange-rate appreciation, and persistent current account deficits. In the Southern Cone "tablita"

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experiments of the late 1970s in Argentina, Chile, and Uruguay, for instance, aggregate consumption increased in real terms by an average of 10% in the first year following the implementation of the plan, before slowing down (see Végh, 1992; Calvo and Végh, 1994). An expansion in domestic investment (often associated with an increase in imports of capital goods) and a rise in labor supply have also been observed in some of these programs (Roldós, 1995; Rebelo and Végh, 1997). As documented by Fischer et al. (2002) the output and domestic absorption booms appear to have been observed in both successful and failed exchange-rate-based stabilization attempts, whereas money-based stabilization programs have generally been accompanied by a protracted recession.[1]

Various theories have been proposed to explain the boom-recession cycle in exchange-rate-based stabilization programs. One branch of literature, developed in particular by Helpman and Razin (1987), emphasizes the wealth effects of stabilization programs. A second approach is the temporariness hypothesis, developed by Calvo and Végh (1993). A key feature of this approach is its emphasis on the interactions between the lack of credibility (modeled as a temporary policy change) and intertemporal substitution effects. A transitory reduction in the devaluation rate is equivalent to a temporary fall in present prices relative to the future, and induces an intertemporal substitution in consumption toward the present—leading to a rise in output, real exchange-rate appreciation, and a current account deficit. However, evidence on the temporariness hypothesis is mixed. The econometric study by Reinhart and Végh (1995) suggested that although it can explain the behavior of consumption in some of the programs implemented in the 1980s, it is less useful for understanding the tablita experiments of the late 1970s in Argentina, Chile, and Uruguay. Given the low intertemporal substitution parameters estimated for these countries, nominal interest rates would have had to fall by substantially more than they actually did to account for a sizable fraction of the consumption boom recorded in the data. A third approach, developed by De Gregorio et al. (1998), emphasizes the role of durable goods accumulation in generating a consumption boom-bust cycle, without resorting to lack of credibility.

A fourth approach to the behavior of consumption and output in exchange-rate-based programs emphasizes the supply-side effects of stabilization. Roldós (1995), in particular, analyzed these effects in a dependent-economy model with physical capital (which plays a dual role as a financial asset and a production input), endogenous labor supply, and a cash-in-advance constraint (following Stockman, 1981) on purchases of both consumption and capital goods. Roldós showed that, as a result of the cash-in-advance constraint, inflation creates a wedge between the real rate of return on foreign-currency denominated assets and that of domestic-currency denominated

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[1] Research by Easterly (1996) and Gould (1996) has shown, however, that output and absorption tend to rise at the inception of both money-based (MBS) and exchange-rate-based (ERBS) stabilization programs. Gould (1996) for instance found that real output growth tends to increase in all the programs in his sample (except for the 1985 stabilization in Bolivia). Output growth, nevertheless, appears to be higher in the immediate aftermath of ERBS compared to MBS. See also Hamann (2001) for a critical discussion of the "stylized facts" associated with exchange-rate-based stabilization.