Destabilizing effects of a successful stabilization: a forward-looking explanation of the second Hungarian hyperinflation

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Received: November 5, 1998; revised version: November 30, 1998

Summary. The extreme severity of the second Hungarian hyperinflation is argued to be related to the unusual way in which the inflation was eventually stabilized. The historical features of this episode are represented in a general equilibrium model, which incorporates a transition from one monetary regime to another. During the inflation the government finances a fixed deficit with seigniorage revenue. After the stabilization the government budget is balanced and the central bank engages in a program of subsidized lending to the private sector. Stabilization is achieved by targeting a low inflation rate path through adjustments in the quantity of central bank lending. I show that under this stabilization policy (1) the dynamic equilibrium path of the economy is indeterminate and (2) arbitrarily high pre-stabilization inflation rates are possible.

Keywords and Phrases: Stabilization, Inflation targeting, Rediscounting, Regime change, Indeterminacy, Second Hungarian hyperinflation.


1 Introduction

The hyperinflation that Hungary experienced in the aftermath of World War II is widely regarded as the most severe in history. Inflation and money growth rates
in its terminal stage exceeded even those observed during the German hyperinflation. As in similar cases (Cagan [9], Sargent [26], Bernholz [5], Véghe [37]), the inflation ended abruptly with the reforms introduced in August 1946. However, the Hungarian stabilization program employed a monetary policy substantially different from any of the stabilization programs used to halt other hyperinflations. In this paper I examine the possibility that the astronomical pre-stabilization rates of inflation resulted from the anticipation of the unusual post-stabilization monetary regime.

One important pillar of the Hungarian stabilization program, along with the elimination of primary budget deficits, was the institution of strict credit controls. Regulations limiting the ability of the banking sector to freely extend loans, together with the low level of private savings, implied that the government became a major source of funds for private investments. Each month the central bank discounted a certain quantity of commercial bills at interest rates much lower than the rates charged by commercial banks. The financing for the implicit subsidy came from seigniorage revenue generated by a gradual expansion of the money supply. Both the descriptive and the econometric evidence supports the interpretation that limits on the aggregate amount of central bank credit were set with the aim of preventing further inflation. Price level stability was thought to be consistent with the expansion of the money supply because of the increasing willingness of the public to hold real balances after the end of the inflation, a process often referred to as “remonetization” of the economy.

In this paper I construct a model which explicitly describes two regimes: a hyperinflation followed by a subsequent stabilization. During the hyperinflation the government finances an exogenously given deficit with seigniorage revenue. After the stabilization, the budget deficit is eliminated and the money supply is gradually increased through the extension of subsidized government loans to the private sector. The quantity of these loans is set so as to maintain a target time path of low rates of inflation. I demonstrate that this post-stabilization monetary policy does not imply the existence of a unique equilibrium. Indeed, the post-stabilization real interest rate path is indeterminate, even though the stabilization is successful in the sense that it delivers the desired inflation rate path. When rational agents correctly anticipate the implications of the reform program, the indeterminacy of the initial post-stabilization real interest rate also translates into an indeterminacy of many pre-stabilization variables, including the inflation rate. Some of the possible equilibria feature extremely explosive price level dynamics prior to the reform.

The stabilization program that Hungary actually implemented in 1946 can be compared to a more orthodox policy where the government balances its budget and holds the money supply constant. I show that this alternative policy gives rise to a unique equilibrium where the post-stabilization price level is constant. Moreover, the implied pre-stabilization inflation rates are uniformly lower than those in any of the equilibria generated by the Hungarian stabilization program.