2 The Ends of Four Big Inflations

Thomas J. Sargent

2.1 Introduction

Since the middle 1960s, many Western economies have experienced persistent and growing rates of inflation. Some prominent economists and statesmen have become convinced that this inflation has a stubborn, self-sustaining momentum and that either it simply is not susceptible to cure by conventional measures of monetary and fiscal restraint or, in terms of the consequent widespread and sustained unemployment, the cost of eradicating inflation by monetary and fiscal measures would be prohibitively high. It is often claimed that there is an underlying rate of inflation which responds slowly, if at all, to restrictive monetary and fiscal measures.[1] Evidently, this underlying rate of inflation is the rate of inflation that firms and workers have come to expect will prevail in the future. There is momentum in this process because firms and workers supposedly form their expectations by extrapolating past rates of inflation into the future. If this is true, the years from the middle 1960s to the early 1980s have left firms and workers with a legacy of high expected rates of inflation which promise to respond only slowly, if at all, to restrictive monetary and fiscal policy actions. According to this view, restrictive monetary and fiscal actions in the first instance cause substantial reduc-

Thomas J. Sargent is with the Federal Reserve Bank of Minneapolis and the Department of Economics, University of Minnesota.

The views expressed herein are solely those of the author and do not necessarily represent the views of the Federal Reserve Bank of Minneapolis or the Federal Reserve System. Helpful comments on earlier drafts of this paper were made by Preston Miller, John Kennan, Peter Garber, and Gail Makinen. General conversations on the subject with Michael K. Salemi and Neil Wallace were most helpful. Gail Makinen directed the author's attention to the unemployment figures for Poland. Carl Christ of the NBER reading committee made several comments that improved the manuscript.

Table C4 Czechoslovakian Wholesale Prices, 1922–24

Year	Month	Wholesale Price Index
1922	January	1,675
	February	1,520
	March	1,552
	April	1,491
	May	1,471
	June	1,471
	July	1,464
	August	1,386
	September	1,155
	October	1,059
	November	1,017
	December	999
1923	January	1,003
	February	1,019
	March	1,028
	April	1,031
	May	1,030
	June	1,001
	July	968
	August	958
	September	957
	October	973
	November	965
	December	984
1924	January	974
	February	999
	March	1,021
	April	1,008
	May	1,015
	June	981
	July	953
	August	986
	September	982
	October	999
	November	1,013
	December	1,024
1925	January	1,045
	February	1,048
	March	1,034
	April	1,019
	May	1,006

Source: Young [36, vol. 2, p. 307].
Note: July 1914 = 100.

restore the Czechoslovakia crown to the prewar gold par value of the old Austro-Hungarian crown. Following Rasin's assassination, this plan was abandoned and the crown was stabilized at about 2.96 cents.

2.8 Conclusion

The essential measures that ended hyperinflation in each of Germany, Austria, Hungary, and Poland were, first, the creation of an independent central bank that was legally committed to refuse the government's demand for additional unsecured credit and, second, a simultaneous alteration in the fiscal policy regime.[37] These measures were interrelated and coordinated. They had the effect of binding the government to place its debt with private parties and foreign governments which would value that debt according to whether it was backed by sufficiently large prospective taxes relative to public expenditures. In each case that we have studied, once it became widely understood that the government would not rely on the central bank for its finances, the inflation terminated and the exchanges stabilized. We have further seen that it was not simply the increasing quantity of central bank notes that caused the

hyperinflation, since in each case the note circulation continued to grow rapidly after the exchange rate and price level had been stabilized. Rather, it was the growth of fiat currency which was unbacked, or backed only by government bills, which there never was a prospect to retire through taxation.

The changes that ended the hyperinflations were not isolated restrictive actions within a given set of rules of the game or general policy. Earlier attempts to stabilize the exchanges in Hungary under Hegedus,[38] and also in Germany, failed precisely because they did not change the rules of the game under which fiscal policy had to be conducted.[39]

In discussing this subject with various people, I have encountered the view that the events described here are so extreme and bizarre that they do not bear on the subject of inflation in the contemporary United States. On the contrary, it is precisely because the events were so extreme that they are relevant. The four incidents we have studied are akin to laboratory experiments in which the elemental forces that cause and can be used to stop inflation are easiest to spot. I believe that these incidents are full of lessons about our own, less drastic predicament with inflation, if only we interpret them correctly.

Notes

1. "Most economists believe that the underlying inflation rate—roughly defined as wage costs less productivity gains—now stands at 9 to 10 percent, and that only a long period of restraint can reduce that rate significantly" (*Newsweek*, 19 May 1980, p. 59).

2. Paul Samuelson has aptly summarized the rational expectations view: "I should report that there is a new school, the so-called 'rational expectationists.' They are optimistic that inflation can be wiped out with little pain if only the government makes *credible* its determination to do so. But neither history nor reason tempt one to bet their way" (*Newsweek*, 28 April 1980). The second sentence of this quote is probably as shrewd a summary of the rational expectations view as can be made in a single sentence. However, it is difficult to agree with the third sentence: as for "reason," no one denies that logically coherent and well-reasoned models underlie the claims of the "rational expectationists"; as for history, the evidence summarized in this paper is surely relevant.

3. There is actually no such thing as a "rational expectations school" in the sense of a collection of economists with an agreed upon model of the economy and view about optimal monetary and fiscal policy. In fact, among economists who use the assumption of rational expectations there is wide disagreement about these matters. What characterizes adherents of the notion of rational expectations is their intention to build models by assuming that private agents understand the dynamic environment in which they operate approximately as well as do government policymakers. Adherence to this notion leaves ample room for substantial diversity about the many other details of a model. For some examples of rational expectations models with diverse implications, see Lucas [21], Barro [2], Wallace [35], Townsend [34], and Sargent and Wallace [31]. Despite their diversity, it is true that all of these models impel us to think about optimal government policy in substantially different ways than were standard in macroeconomics before the advent of the doctrine of rational expectations in the early 1970s.