

BOOK REVIEWS

Monetary Regimes and Inflation: History, Economic and Political Relationships, 2nd ed.

Peter Bernholz

Cheltenham, UK: Edward Elgar, 2015, 240 pp.

An extensive academic literature exists on central bank independence and economic performance, especially inflation. The conclusions drawn from these studies are obtained from regressions utilizing fairly recent data from both developed and underdeveloped countries. They draw a similar conclusion: when central bank independence is defined as the ability to refuse to finance a government's budget deficit, it improves the inflation performance of the economy. However, almost all of these studies suffer from one major deficiency: the data they use commingle observations from both fixed and flexible exchange rate regimes. (For a discussion of these studies and their methodologies, see Marc Labonte, *Central Bank Independence and Economic Performance: What Does the Evidence Show?* Congressional Research Service, Report RL31955.)

Peter Bernholz's *Monetary Regimes and Inflation: History, Economic and Political Relationships* is akin to this literature although, curiously, it is not mentioned in his study. This is the second edition of Bernholz's book. The first appeared in 2003 and much of its material is carried over to the second. There, are, however, several changes. First, Bernholz added one new hyperinflation to his discussion, the 2007–08 episode in Zimbabwe, and the book's

cover now contains a picture of the 100 trillion dollar note issued by its central bank. That episode receives scant mention, however, other than that it shares performance characteristics with similar episodes.

Also, 19 additional pages of text are now included that deal with two subjects. The first, for many, is a surprise: during the financial crisis beginning in 2007, several countries (especially the United States) experienced a large increase in their monetary base, of a magnitude often associated with high or hyperinflations, without such a calamity occurring (at least not yet). The second subject, which concludes the book, seeks to explain how monetary regimes that yield stable (or low) inflation arise and why they exist for long periods.

Bernholz's methodology consists of reviewing a large number of inflationary episodes, both ancient and modern, to see if they display consistent patterns from which conclusions can be drawn. Most of the episodes are well known and extensively researched. His discussion adds little to what is already known, but the episodes are of interest when studied collectively to see what they share in common. This is ably done. Only two pages of text out of 213 are given over to econometric estimates, and these are related to currency substitution during the Soviet hyperinflation of 1923–24. The remainder of the numerical presentation is confined to tables and graphs. Unfortunately, for some, this may be a shortcoming of the book. While the tables are in a standard format (numbered sequentially within each chapter with their titles appearing at the top and their notes and sources at the bottom), the graphs are not. Graph titles are presented on the bottom under the notes and sources, and many are so cluttered with data for the various countries distinguished by different shaped geometric symbols as to make them almost unreadable. Those places in the text where the discussion is mainly mathematical are marked by an * and can be omitted if desired without compromising the usefulness of the book.

Fortunately, each chapter ends with a series of numbered conclusions. I say this because I found the book difficult to read. It would have benefited from someone other than the author serving as translator. All one has to do is to compare Bernholz's ungraceful prose with the lucidity of Leland Yeager's in *Experiences with Stopping Inflation* (American Enterprise Institute, Studies in Economic Policy, 1981), a book that convers much the same ground.

The organizing framework of the book and its principal conclusions are set out in Chapter 2, "Inflation and Monetary Regimes." Using the equation of exchange, the proximate cause of inflation is identified as money growth in excess of the growth in real output or an increase in money per unit of output. Thus, nonmonetary causes of inflation are dismissed. The linkage of money to inflation leads to a distinction between metallic and discretionary paper money regimes. Inflation can occur in both, but the latter is the more likely culprit since it gives free rein to the inflationary predisposition of politicians, the villain in the piece. Constraining them requires independent central banks (or currency boards) and fixed exchange rates. Given the importance of central bank independence to the conclusions of this book, more discussion should have been devoted to defining what it means since a consistent definition is not to be found in the literature. Bernholz appears to have in mind freedom from the influence of political authorities, although what this freedom is remains unspecified.

Chapters 3, 4, and 5, comprising about half the book, deal sequentially with inflations in metallic regimes and those using fiat paper money. In the latter, moderate inflations are distinguished from hyperinflations with most of the discussion focused on hyperinflation. Many historical episodes are reviewed. Collectively they show that severe inflations display five regularities over their life cycles, and these dominate much of the discussion. First, depreciating money drives out of circulation stable-valued money (Gresham's Law). Second, budget deficits became larger over time since the real value of tax revenue falls between the time it is collected and disbursed (Tanzi's Law—this should be called Keynes's Law—see page 52 of his *Tract on Monetary Reform*, 1923). Third, real exchange rates become undervalued (Bernholz's Law). Fourth, the inflationary increases of money first stimulate output and employment and later the price level. As the inflation intensifies, the stimulatory effects of additional money issues diminish and output falls. Fifth, toward the end of each hyperinflation, as domestic money becomes worthless, transactions are increasingly made with stable foreign monies or, good money drives bad money out of circulation (Thiers's Law). (In Chapter 6, a rigorous mathematical model setting out this life cycle is developed.)

Interspersed in these three chapters is a substantial discussion of the costs inflation imposes upon a society in terms of output losses,

the damage it can do to the financial system, its ability to redistribute income, and the social strife it engenders. Let me note three omissions or problems with this discussion.

First, the discussion of inflation during the American War for Independence is incomplete. In Figure 4.5, the emission of the Continental currency ends in December 1779, yet the inflation continued at an accelerated pace for about another year and a half when the data end. Why this occurred is a mystery. Apparently it is associated with the successor currency to the Continental. Moreover, it would appear that a date is misplaced in this discussion. For the discussion on page 58 to make sense, the date at the top of the page should be 1780 and not 1790.

Second, the decline in output as inflation intensifies is attributed to the inefficiencies induced as barter is substituted for money exchange and the distorting effect of changes in relative prices. While this is true, another force is also at work—disintermediation of the banking system. Banks are a very important part of the financial system for most of the 30 countries noted and, during hyperinflations, the use of checks diminishes considerably and few hold saving or time deposits. The conversion of these deposits into other assets, especially currency, contracts the banking system and with it the credit base of the economy. Without credit, the wheels of production come to a grinding halt.

Third, the undervaluation of the inflating country's currency is attributed to currency substitution—Thiers's Law at work. Another reasonable alternative is available: capital flight. Not only do individuals in inflating countries get their capital out, but lending by foreigners dries up. If the goods and services being traded internationally are not perfect substitutes, the real exchange rate will have to depreciate to produce a net export of goods and services, the counterpart of the net import of stable-valued foreign financial paper.

Chapters 7 and 8, some 60 pages, explain how moderate and hyperinflations have been brought to an end. This distinction is necessary since, in hyperinflations, the real value of the national currency is reduced to near zero whereas this is not true in more moderate inflations—in these cases, it may actually rise.

Given Bernholz's belief in the inherent inflationary bias of politicians, the stabilization of moderate inflations requires both the reduction of money growth and the adoption of a monetary regime and constitution that bind the hands of politicians. His suggestions favor

fixing exchange rates to metal or stable-valued currencies, independent central banks, and currency boards. This, of course, rules out a monetarist option since it would require a central bank bound by a money growth rate rule operating in a flexible exchange rate regime.

The 30 hyperinflation cases, it is claimed, also reflect the inflationary biases of politicians, and all have occurred in discretionary paper money regimes and were (proximately) caused by large public-sector budget deficits that were largely financed by money creation. Thus, in addition to anchoring the monetary regime, stabilization requires eliminating the budget deficit through fiscal reform in which explicit taxes are substituted for the inflation tax and expenditures are brought into line with expected revenue. Also crucial to success: the public must believe that these changes are substantive and will be adhered to both in the short and long run. If this occurs, the demand for national money will increase and permit a one-time noninflationary increase in its supply. Not to accommodate this increase in demand will lead to rising real interest rates and appreciating exchange rates, both of which could damage the nascent recovery. Bernholz is not optimistic about the ability of the public to form correct expectations about stabilization policies.

While many elements in the stabilization strategy suggested by Bernholz would find wide agreement among economists, I have substantial doubt that hyperinflations are set in motion by an inflationary predisposition of politicians. Even a country with an independent central bank and a restrictive fiscal setup can fall prey to hyperinflation if the right circumstances occur. In the ones that I and my coauthors have studied (see *Studies in Hyperinflation and Stabilization*, Center for Financial Stability, 2014), the shocks that set them in motion would have done so even with independent central banks or constrained fiscal policy. Inflation in a number of these episodes was simply an alternative form of taxation forced on governments because they could impose no other. Resort to the inflation tax reflected the economic and political facts of life. History, however, teaches that the inflation tax, like other taxes, is subject to a Laffer curve and ultimately, as the rate of inflation intensifies, it produces declining amounts of revenue since the tax base vanishes as velocity rises. When revenue becomes very small, the government (or, as Bernholz notes, the government that succeeds it) is forced to enact a stabilization program since the only options remaining for survival are forced requisitions and foreign aid.

There is one subject not touched upon in this book: the longer-run legacy of the monetary regime put in place to stabilize inflating economies. Bernholz favors fixed exchange rates anchored to some metal, preferably gold. These regimes have some undesirable side effects: (1) real exchange rate adjustments to shocks require national price levels to change; (2) they can be deflationary over the long run; and (3) they are not cheap to operate.

Overall, this book provides the economist with a good picture of many countries over a long time period that were affected by inflation, how they dealt with it, and what measures contributed to success. Bernholz brings a wealth of experience and knowledge to this subject.

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The Power and Independence of the Federal Reserve

Peter Conti-Brown

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Why should the president and Congress defer to the Federal Reserve on monetary policy? One of the typical justifications for central bank independence is that politicians are liable to artificially juice the economy, especially before elections, boosting economic activity through an expanded money supply in the short run but causing inflation in the medium to long run. This conflict of interests necessitates insulating central banks from political pressure. It is what Peter Conti-Brown calls the “Ulysses/punch-bowl” justification of Fed independence. Like Ulysses tied to the mast, the Fed should be shielded from the siren calls of Congress and other elected officials and left free to follow former Fed chairman William McChesney Martin’s ideal of taking away “the punch bowl when the party is really heating up,” that is to temper money growth in economic expansion—a move short-term-minded politicians might oppose.

Conti-Brown’s *Power and Independence of the Federal Reserve* is at heart an attempt to challenge the Ulysses/punch-bowl justification for the Fed’s independence. In Conti-Brown’s conception, while the Ulysses/punch-bowl reasoning might accurately explain the general need for insularity from politics in the conduct of monetary policy, it