

# ECONOMIC COMMENTARY

Federal Reserve Bank of Cleveland

## Central Bank Independence

by Owen F. Humpage

To many Americans, the idea that a central bank should make crucial economic policy decisions with no direct political accountability either to the citizenry or to their elected representatives seems the antithesis of democracy. Central bank independence, however, is but one solution to a problem endemic to fiat money.<sup>1</sup> Because fiat money has no intrinsic value, the willingness of individuals to hold it depends solely on their faith that the government will not depreciate its purchasing power. Uncertainty about the long-term value of money arises because inflation generates government revenues and, according to some economic theories, can lead to a temporary surge in employment and output.

Economists have long recognized that establishing an independent central bank is not the only solution to the problem of guaranteeing the value of money, and many contend that it is not the best solution. Nevertheless, it is a proven approach, born out of the unwillingness of elected governments to make themselves otherwise accountable for a clear, legally mandated price-level objective.

### ■ The Problem with Fiat Money

Money has value because people generally accept it in exchange for goods and services and as payment for debts. Consequently, money greatly reduces the costs associated with economic exchange. For one thing, it eliminates the time and expense associated with barter. If, for example, a research economist had to find a restaurant willing to trade lunch for an economic consultation, he might very well go hungry. Moreover, because it is widely accepted, money

also condenses the amount of information an individual requires in order to undertake informed transactions. One need only know the money prices of commodities to make comparisons of value. Without money, one would need constantly to remember the units of each item that trade for every other. Money also has value as a temporary store of purchasing power when individuals' receipts and outlays are not synchronous. It eliminates the difficulties of shifting wealth into and out of less-liquid assets.

People generally take the benefits of money for granted, or simply associate them with the fact that our government regulates its use. This perception, however, is an illusion. The extent to which any asset functions as money ultimately depends on the stability of its purchasing power. When people lose faith in the value of money, they attempt to reduce the amounts they hold and use.<sup>2</sup> As the use of money becomes circumscribed, the economic efficiencies that it promotes are correspondingly lost.

Throughout history, mankind has developed various customs and institutions to instill confidence in the purchasing power of money. Until fairly recently, for example, governments defined money in terms of intrinsically valuable assets like gold or silver and permitted people to exchange money for the assets that backed it. Today, however, money is pure fiat. Its value lies solely in the willingness of others to accept it and ultimately only in the faith that the government will not create excessive amounts.

Recent economic studies have confirmed that higher levels of central bank independence are associated with lower and more stable rates of inflation. The autonomy of central banks is critical in a world where governments have an incentive to generate inflation—and thus depreciate the purchasing power of money—as a potential trade-off for temporary output and employment gains.

### ■ The Incentives to Fuel Inflation

Most people realize that when governments face a crisis—such as war—they often resort to the printing press to finance their survival. Yet many of these same incentives operate under normal circumstances as well.

Economists recognize inflation as a form of taxation, which governments can impose outside the normal legislative process. Basically, the sequence is as follows: A government can print money virtually for free to finance its expenditures at an initial set of prices.<sup>3</sup> As individuals then re-spend this money, prices rise, reducing the real purchasing power of the balances that they hold. The government, however, as the initial issuer of money, then has acquired real resources from the private sector as if through a tax. The tax rate is proportional to the rate of inflation, and the tax base is the stock of money balances that the public holds.

The ability of individuals to contract their money balances limits the revenues

raised from inflation. For some developing countries, the inflation tax has been a significant revenue source, but for most industrialized nations, the contribution is fairly small, approximately 1 percent of gross national product.<sup>4</sup>

If the tax structure is not indexed for inflation, other taxes augment the inflation tax. Inflation raises the nominal income of individual and corporate taxpayers, propelling them into progressively higher tax brackets and transferring purchasing power to the government. A similar problem results when the government taxes nominal rather than inflation-adjusted capital gains.

Governments also benefit from unanticipated inflation when, as is typically the case, they have outstanding debts. Holders of government securities expect repayment in money with a purchasing power equal to that which they lent, plus a small profit to cover the opportunity cost of making the loan. By generating a higher rate of inflation than its bondholders anticipate, the government reduces the real resource cost of servicing its debts. Again, real purchasing power is transferred to the government from private-sector creditors.

The Keynesian economic paradigm provides a different type of incentive for governments to generate an unanticipated inflation. This model assumes that resources are typically underutilized and that prices respond only slowly to changes in aggregate demand. Consequently, an unexpected expansion of the money supply can result in a temporary increase in output and employment. According to some political economists, the possibility of trading more inflation for greater short-term output and employment encourages elected representatives to promote inflation, especially just prior to elections.<sup>5</sup>

### ■ The Private Costs of Inflation

In addition to transferring purchasing power from the private sector to the government, inflation generates costs in terms of misallocated resources. When people anticipate an increase in the price level, they will take steps to protect the

real value of their wealth by finding investments that compensate for future inflation and by reducing cash balances that earn no interest. Individuals will also index contracts to the expected rate of inflation, or will upgrade prices and wages frequently. While these adjustments may seem fairly innocuous, all of them involve costs, including the alternatives to which people could have put their time, energy, and resources. Moreover, to the extent that these adjustments do not transpire quickly and simultaneously across all goods and services, they introduce temporary distortions to the price structure that affect decisionmaking.

Relative price distortions, which pose the greatest costs, are much more common and destructive when inflation is unanticipated. For instance, when the price of corn rises relative to that of other goods and services, it indicates that the commodity is becoming relatively more scarce. The price hike signals farmers to plant more corn and encourages consumers to buy more wheat. In this way, such relative price changes swiftly and efficiently convey information vital to the smooth functioning of the economy. Distorting relative price signals—as the communist countries eventually discovered—can create serious gluts and shortages.

If inflation is unexpected, people may confuse a general price rise stemming from an overabundance of money for a relative price change, as described above. Uncertain about the nature of price signals, they might then make production, investment, employment, and consumption decisions based on erroneous perceptions about relative scarcities and might incur substantial losses.

Once burned, people tend to become twice cautious, devoting more resources to predicting inflation and protecting themselves from its effects. They will seek investments with quick payoffs and will avoid lengthy commitments that could leave them exposed to future inflation. The long-term investments that inflation fears tend to discourage are often those most necessary for the promotion of economic growth.<sup>6</sup>

### ■ Credibility, Accountability, and Independence

The surest means by which a government could acquire a credible commitment to maintaining the value of its money is by legally mandating price stability as the sole objective for monetary policy and by holding its central bank accountable for attaining that objective. In so doing, a government eliminates the uncertainty that it might resort to an inflation tax or sacrifice price stability for temporary output and employment objectives. New Zealand is currently attempting such an approach: Its parliament now sets an inflation objective and holds the central bank's Governor accountable for achieving it. Similarly, Mexico has adopted a constitutional amendment requiring its central bank to maintain price stability.

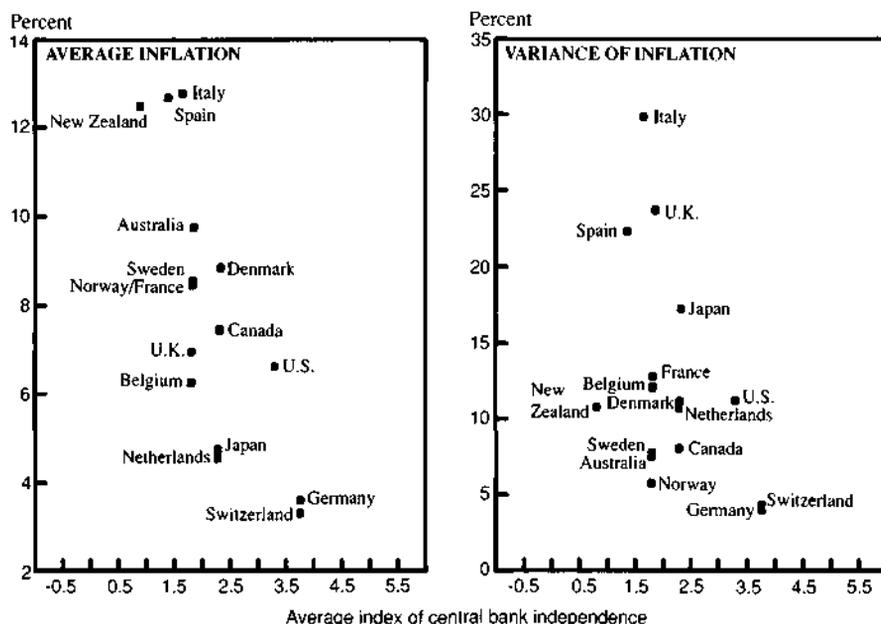
Among the major developed countries, only Germany approximates this approach. The Bundesbank Act sets "maintaining the value of the currency" as the primary objective of the German central bank. Although the Bundesbank generally views this language as a mandate for domestic price stability, it has been subject to differing interpretations and thus seems less binding with respect to price performance than the New Zealand method. With a stated mandate for price stability and with accountability clearly delineated, the political and institutional structure of the central bank becomes of secondary importance.

Despite the attractiveness of this approach, few elected officials embrace it. Increasingly, however, governments seem willing to grant their central banks greater political autonomy as a way to enhance monetary policy credibility. In recent years, Canada, Chile, France, Mexico, and the United Kingdom have either adopted or begun to consider laws granting their central banks more political autonomy.

### ■ The Mechanics of Central Bank Independence

Central bank independence depends rather imprecisely on a host of legal, institutional, and customary arrangements. The structure of the Federal Re-

**FIGURE 1 CENTRAL BANK INDEPENDENCE AND ECONOMIC PERFORMANCE, 1973–1988**



SOURCE: Alberto Alesina and Lawrence H. Summers, "Central Bank Independence and Macroeconomic Performance," *Journal of Money, Credit, and Banking*, vol. 25, no. 2 (May 1993), pp. 151–62.

serve System, one of the world's most politically autonomous central banks, is illustrative. Although congressional banking committees provide oversight, no agency establishes or directly supervises the System's monetary policies. The Federal Reserve must foster the broad economic objectives of the Humphrey–Hawkins Act of 1978, but it is not required to attain specific price, output, or employment objectives; nor must it implement policy in a specific way, such as through an interest-rate target. Although the Fed does conduct open-market operations by buying and selling Treasury securities in the secondary market, the Federal Reserve Act prohibits the central bank from making loans directly to the U.S. Treasury.

Policy is formulated by the Federal Open Market Committee (FOMC), whose members have long and staggered tenures. While FOMC membership reflects regional considerations to some extent, appointments are not made according to political party, and the Committee is typically bipartisan. The U.S. President appoints, and the Senate approves, the seven Federal Reserve Governors, all of whom vote on the FOMC. Presidents

of the 12 Federal Reserve District Banks, five of whom vote on the FOMC at any particular time, are appointed (with approval of the Board of Governors) by their respective District Bank directors, who represent local banking, commercial, and consumer interests. Neither the President nor Congress can remove a Governor or a District Bank president without cause. To further preserve autonomy, the Federal Reserve is not subject to a budgetary appropriations process.

These institutional characteristics of the Federal Reserve System promote its monetary policy autonomy. Presumably, central banks with similar institutional structures should foster price stability.

#### ■ Measuring Central Bank Autonomy

In recent years, economists have attempted to measure the relative independence of the world's central banks by quantifying various aspects of their institutional and political structures, and to correlate the resulting numerical ranking with various measures of economic performance. These studies tend to confirm that higher levels of central bank auton-

omy across countries are associated with lower, more stable rates of inflation.<sup>7</sup> In figure 1, for example, as the index of central bank independence increases (implying greater monetary autonomy), price performance improves. Some caution in interpretation, however, is warranted. The evidence does not control for other variables such as the state of economic development, the stability of the government, and the exchange-rate regime. Also, the sample shows at least one interesting exception. Japan has a low inflation rate, but its central bank is not fully independent of its Finance Ministry.

#### ■ The Bias against Inflation

Why should independent central bankers be less prone to creating inflation than elected officials? After all, central banks are ultimately responsible to the governments that sanction them. A central bank's policy objectives and its implementation of policy affect various segments of society disproportionately. Different political constituencies — debtors and creditors, people with fixed incomes, and those with variable incomes — will attempt to influence monetary policies. Among those affected are other government agencies, which may believe that monetary policies compromise their own policy objectives. Thus, no central bank is fully politically autonomous.

One analyst, Adam Posen, has suggested an important counterweight to this political influence.<sup>8</sup> Central banks interact directly with financial intermediaries when undertaking all of their responsibilities. Because financial intermediaries generally make loans with longer-term maturities than their deposits, unanticipated inflation can reduce their net worth; thus, they will seek low inflation policy from central banks.

#### ■ The Inflation Game

The peculiar costs and benefits of inflation pit the private and public sectors against each other in an odd game, in which the best outcome — the one that fosters long-term growth — is to stabilize prices and to eliminate the costs of anticipating and hedging against inflation. But once the private sector begins to

play as if it expects stable prices, the government faces a growing incentive to inflate. Realizing this, people have historically required some type of pledge that the government will not generate inflation. One should view central bank independence simply as the best feasible solution to this game in a world where money is fiat and most governments are unwilling to hold themselves publicly accountable for price stability.

#### ■ Footnotes

1. Fiat money refers to currency that is not convertible into coin or specie of equivalent value.
2. Inflation expectations affect the demand for real money balances through nominal interest rates. See John P. Judd and John L. Scadding, "The Search for a Stable Money Demand Function: A Survey of the Post-1973 Literature," *Journal of Economic Literature*, vol. 20, no. 3 (September 1982), pp. 993-1023.

3. More generally, governments will spend in excess of their tax receipts and require their central banks to acquire their debt obligations either directly or in the open market. When acquiring government securities, central banks increase the money supply. Legal tender laws force individuals to accept, and to pay taxes in, the fiat money.

4. See Stanley Fischer, "Seigniorage and the Case for a National Money," *Journal of Political Economy*, vol. 90, no. 2 (April 1982), pp. 295-313.

5. On the so-called political business cycle, see Douglas A. Hibbs, Jr., *The American Political Economy: Macroeconomics and Electoral Politics*, Cambridge, Mass.: Harvard University Press, 1987.

6. Although most economists believe that high and variable inflation reduces investment and economic growth, cross-country studies generally do not find strong evidence of any relationship (positive or negative) between economic growth and either inflation or central bank independence. David Altig and Michael Bryan discuss these issues in "Policy and Long-Run Output: A Sensitivity Analysis," Federal Reserve Bank of Cleveland, unpublished manuscript, 1994.

7. See Patricia S. Pollard, "Central Bank Independence and Economic Performance," *Federal Reserve Bank of St. Louis, Review*, vol. 75, no. 4 (July/August 1994), pp. 21-36.

8. See Adam S. Posen, "Why Central Bank Independence Does Not Cause Low Inflation," *Central Banking*, vol. 4, no. 2 (Autumn 1993), pp. 51-63.

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