

Federal Reserve Bank of Cleveland

# Money, Fiscal Discipline, and Growth

by Jerry L. Jordan

History will regard the last quarter of the twentieth century as a time when the world reawakened to one of Adam Smith's most important observations—that the specialization and trade fostered by market economies are ultimately the source of the wealth of nations. At no time in history have markets spread so rapidly, and with such promising prospects, as in the last 15 years. Europe's move to a single market for capital, goods, and labor is part of a worldwide trend toward greater reliance on unfettered markets for the allocation of productive resources.

Economists do not question the merits of Europe's single-market initiative on efficiency grounds. Integration allows producers to specialize more fully in goods for which they have a comparative advantage, and permits factors of production to seek their highest return. However, economists are still debating the challenges associated with the European Monetary Union (EMU). Although a common currency reduces transaction costs involved in cross-border exchange, it also eliminates exchange rate changes as an adjustment mechanism to blunt the effects of asymmetric economic shocks. The debate does not revolve around whether monetary union is achievable, or even sustainable; it centers on whether people understand the potential economic consequences of monetary union and whether they are prepared to meet its challenges. The cost-benefit calculation becomes particularly difficult because, ultimately, European political integration is a necessary condition for a successful monetary union.

Rather than debating the relative merits of monetary union, I will focus on the role of sound money in promoting pros-

perity and will end with some challenges faced by every monetary authority attempting to maintain a sound currency, placing particular emphasis on the hazards emanating from fiscal policies. My views stem from a belief that as central bankers pursue their obligation to maintain their currency's purchasing power, there are clear implications for the array of options available to fiscal authorities. In the context of EMU, separation of monetary policy from the conduct of fiscal policies will place stringent constraints on individual member countries.

## ■ Transaction Costs and Money

The act of undertaking economic exchange involves information and transaction costs that are only indirectly reflected in the relative prices of goods and services. These real resource costs, which influence the extent of trade, the degree of specialization, and the economic benefit derived therefrom, stem primarily from the difficulty of acquiring information about the quality of the goods, their true current values, and the trustworthiness of the counterparty. The lower the costs of information, the more opportunities there are for individuals to undertake exchanges that maximize mutual welfare. When we find ways to conserve productive resources devoted to information gathering and conducting exchange, we have more resources available for creating consumable output.

Ironically, the costs of exchange *increase* with the extent of specialization and the scope of markets, since specialization implies that people who are experts in specific economic activities lack complete information about other endeavors. Societies have always sought ways to reduce the costs associated with exchange. Governments can make a positive contribution in the form of binding

**European Monetary Union's full potential will be realized only if the supra-national monetary authority ensures a stable currency and safeguards the financial system's integrity. Uncoupling monetary from fiscal policymaking will impose severe constraints on member nations' fiscal policies. Collectively unsound fiscal policies may compromise the ability to maintain a stable currency and erode prospects for economic growth.**

standards. For example, harmonization of European conventions, rules, and laws—as part of the single-market initiative—is welfare enhancing because the economic infrastructure essential to markets is being strengthened. Reforms that strengthen property rights and remove political boundaries to resource utilization will raise standards of living.

Also prominent among the institutional arrangements traditionally provided by governments are the forms of money used to facilitate payments. The word “money” means different things to different people; it cannot be used without some ambiguity. Most important, money is the means of final payment that best reduces the costs of economic exchange.

We tend to take for granted the resources that sound money frees for alternative uses, but they are enormous. Indeed, the greater the specialization and more complex our economies become, the more essential it is to provide stable monetary and payments systems. There can be no doubt about the importance of sound money—but achieving and maintaining it can be a challenge.

## ■ Inside and Outside Money

Many assets can serve some of the functions of money. Historically, a great number of financial instruments have been used to facilitate exchange. The evolution of money appears to reflect a balance of convenience in use against the risk that a particular form of money might depreciate unexpectedly. Fully convertible paper currencies, or “bank notes,” came into use because they were more convenient than coins, particularly in large transactions, and were inherently less expensive to produce. But they involved more risk than commodity money, since they relied on a faith that the issuing institutions would indeed redeem them for commodity money at par. These early instruments were initially *claims* to commodity money. Eventually, however, as the public gained confidence in the stability of their purchasing power, these paper instruments came to be regarded as money *in their own right*. In fact, up to this time, all new forms of money were initially defined in terms of a pre-existing, familiar, monetary standard. As Milton Friedman and Anna Schwartz explained, there has never been a “phoenix-like” currency.

Today, economists generally recognize both fiat currencies and highly liquid bank deposits as money, but of distinct types. Fiat money is called *outside money*, since it is imposed on the economy as a direct liability of government; outside money is typically legal tender. Commercial bank liabilities are termed *inside money*, because these instruments are generated by market forces within the financial system. People usually do not distinguish between the two forms, especially when the inside money is denominated in the government’s monetary unit of account. However, inside money is a direct liability of the issuing institution and is only a claim to outside money.

Even though most of the world’s money balances consist of inside money, outside money provides an economy’s ultimate monetary standard. Monetary authorities can enhance the quality of inside money both by ensuring that the outside money which backs it is stable and sound, and by ensuring that the systems which clear and settle payments can efficiently and reliably exchange the economic values carried by the various monetary forms. A central bank has to be concerned not only about the integrity

of its own liabilities, but also about the stability and reliability of the financial system issuing claims to its liabilities. If it is inattentive, the monetary authority may witness financial-sector disruptions that induce real economic loss.

The condition of a nation’s financial intermediaries and financial (asset) markets may influence the monetary authority’s policies, but need not compromise its objectives. Unsound financial institutions and inefficient financial markets may render more arduous, but do not preclude, the achievement and maintenance of a stable currency. Nevertheless, if *ex ante* concerns about, or *ex post* responses to, the condition of financial intermediaries or markets cause monetary authorities to deviate from a disciplined, sound policy stance, then overall financial instability can result.

The adverse real economic effects of shocks to the financial sector are minimized when the monetary authorities continue to provide a stable monetary unit (currency) despite the existence of unsound financial intermediary institutions or unstable financial (assets) markets. This means protecting the currency from deflation as well as inflation.

## ■ The Quality of Monetary Services

Economists are accustomed to talking about the *quantity* of money; I would like to suggest thinking more deeply about its *quality*. A society will choose to use as money that form which enables people to gather information and conduct transactions with the minimum use of resources. Indeed, the worldwide use of the U.S. dollar alongside local currencies illustrates the point that monies do compete along a quality dimension. Financial efficiency depends primarily on the stability of money’s purchasing power—that is, on its exchange value in terms of goods and services. Stable purchasing power does not mean that all prices are constant. Rather, it implies that while some money prices will increase and others will fall, on balance, people feel safe in assuming that the monetary unit will continue to buy essentially the same bundle of goods over time. It means that concerns about the average value of money will not influence their economic decisions.

When the purchasing power of money is unstable, price changes do not efficiently serve their function of providing information about the relative scarcities of goods, services, and assets. When the public observes that the money prices of virtually everything are continually rising—a condition referred to as inflation—they will project this trend to the future and alter their behavior. They will reduce their holdings of money balances, look for alternative transaction vehicles, and devise alternative methods of exchange. The quality of the services provided by the initial forms of money then decays, transaction costs rise, and the benefits of specialization and trade diminish. The substitutes become more efficient only because the “first-best” money has been debased.

## ■ Fiat Money

Today’s national currencies are fiat. The stability of fiat currencies is anchored only by the public’s faith that their central banks will not issue too much—more than the public wishes to hold at current prices—and undermine their purchasing power. Since fiat monies have no intrinsic value, the public’s choice among alternatives rests on the relative abilities of central banks to invest them with some guarantee of quality. In this process, both the public and the central bank may become locked in a peculiar type of strategic game—a game that now encompasses broader political forces.

For their part, central banks understand the long-term efficiencies that stable money can provide, but they are also part of a fiscal regime that includes strong incentives to violate the public’s trust by generating unanticipated inflation. Through unanticipated expansions of fiat money, central banks can levy an unlegislated tax, reduce the real value of the government’s outstanding debts, or attempt to exploit a short-term trade-off between growth and inflation. Governments—particularly those that heavily discount the future benefits of monetary stability in favor of near-term trade-offs—sometimes instruct or pressure their central banks to issue excessive amounts of outside money.

Such short-sighted government policies have at most a transitory effect on economic growth. People respond to these policies by adjusting their money holdings, altering their price-setting behavior (favoring current consumption over

investment), and purchasing nonproductive assets rather than saving. As people alter their behavior, the daily costs of conducting exchanges denominated in a particular monetary standard rise. The additional resources expended on information gathering and on protecting the real value of wealth would otherwise have been available for growth-enhancing activities.

Research findings confirm the public's ability to respond in this manner: Countries with higher inflation rates do not enjoy faster rates of economic growth. To the contrary, there is mounting evidence that higher inflation actually reduces long-term growth. For one thing, high and variable inflation makes it difficult for investors to commit to long-term projects. Instead, people in high-inflation countries tend to channel resources toward hedging and speculating against the uncertain purchasing power of money.

Governments with a long view typically attempt to insure the quality of their monetary unit by adopting institutional arrangements— independent central banks, fixed exchange rates, free international capital movements—that restrict their own monetary discretion. While some combinations of these can enhance monetary stability, none is sufficient, since the government that establishes them may alter them at will. Even under a gold standard, which theoretically eliminates all opportunities for monetary policy discretion, governments maintain the option of altering the gold price of the monetary unit.

The public will ultimately hold that quantity of its officially established money (both inside and outside) which minimizes information and transaction costs *only* if the central bank develops a reputation for repeatedly defending the purchasing power of its currency. Certain types of rules, however, can enhance a central bank's reputation by providing a signal that they—and the governments that establish them—intend to maintain the quality of the currency. Examples include explicit price-level targets, or—as in the case of the EMU—legal imperatives to place price stability above other objectives. Such arrangements may be particularly important because reputations for price stability build very slowly. Rules that limit discretion enhance price stability while the central bank's reputation builds.

## ■ The Fiscal Connection

The performance of national fiat currencies in the twentieth century has been strongly influenced by the fiscal regime in which the monetary authorities operated. The reason is that monetary policies have often been used as an alternative fiscal instrument—a means of financing government spending.

The prospect of a multicountry monetary union presents some interesting implications for the fiscal authorities of the member nations. For the first time, there will be a central bank and a fiat currency that are not associated with a single country—at least until complete political union occurs. Monetary policy decisions will be made at a supra-national level, while fiscal decisions will remain at national levels.

This arrangement could help promote central bank independence and foster the primary objective of monetary stability, because it eliminates money creation as a means of raising revenue at the national level. At the same time, this separation will exert enormous fiscal discipline on participating national governments. Although seigniorage will continue to be paid to national governments, its level will no longer be a national decision. Moreover, national governments will no longer be able to issue their own legal tender and erode the real value of outstanding nominal debts through inflation.

To the extent that labor and capital are mobile across a single market, more discipline will be imposed on fiscal authorities by the new monetary arrangements. Absent the ability to create money, high levels of national debt can be serviced only by higher future tax receipts. Within the single market, however, the prospect of higher taxes would cause the factors of production to migrate. Higher tax rates could, eventually, *shrink* the tax base.

Although the deficit/output ratios of the potential EMU participants have converged, the inherited ratios of debt to GDP still vary widely. The diversity of these fiscal positions, together with many well-publicized structural economic problems in Europe—such as costly welfare programs and unfunded pensions—suggest that the market will not view debt instruments of various participating countries as perfect substitutes.

This potential divergence creates a unique situation for the central bank in a monetary union. Once the member countries no longer have a sovereign currency, the debts of member governments become merely claims to future tax receipts, and there is no longer the potential for resorting to inflation to ease an individual government's debt burden. If the supra-national central bank discriminates among the quality of debt instruments—for example, by buying only the highest-rated ones—the fiscal discipline imposed on certain countries will intensify.

To the extent that market participants assign different risk premiums to the obligations of member countries, the national authorities will be in a position similar to that of state fiscal authorities in the United States. An examination of the U.S. state and local bond markets suggests that the risk premium rises sharply with the ratio of state debt to state product. States with high debt-to-output ratios can become effectively rationed out of the market. To an outsider, it is not clear how a supra-national monetary authority would discriminate among the debt obligations of individual member nations. The debt monetization operations of a prudent monetary authority would heighten interest rate differentials among countries with dissimilar fiscal positions. This, however, could feed back onto the fiscal position of individual countries; that is, divergent debt-servicing costs would worsen the relative fiscal positions of the high-debt nations.

The risk for the fiscal authorities of any member country is that the “dismal arithmetic” of the budget constraint leaves few palatable alternatives. If the yield on government securities demanded by markets exceeds a country's nominal income growth, then interest expense on the outstanding debt must become a relatively larger burden. Nominal income growth has only two components, real growth and inflation, the latter of which is no longer under the control of a national central bank. So, if a nation's real growth, plus any inflation within the monetary union, is less than the average interest rate on the existing debt, one or some combination of three things must happen: 1) fiscal deficits can increase, 2) tax rates can be raised in an attempt to match rising total expenditures, or 3) the fraction of the government's non-interest outlays (including pensions and other

wealth redistributions) must permanently trend downward.<sup>1</sup> It may be that none of these adjustments is sustainable. Furthermore, the political stresses involved in securing a sustainable outcome cannot be assessed in advance.

Ultimately, the consolidated fiscal positions of all the member countries will affect confidence in the soundness of the currency. The monetary authority will be issuing non-interest-bearing liabilities on itself in exchange for the interest-bearing obligations of member countries. If the collective fiscal position of the individual countries is questioned in the market, the commitment by the monetary authorities to maintain a stable currency will also be questioned. In the end, the sustainability of any monetary regime depends on the fiscal regime in which it operates.

### ■ Summary

Central banks are successful when households and businesses make decisions based on the assumption that all observed changes in money prices accurately reflect the relative scarcities of

goods and services in the economy. When this occurs, money is serving its purpose of reducing the costs of engaging in economic exchange. First and foremost, a successful central bank must maintain a stable purchasing power for its currency. That does not ensure prosperity, but it is a necessary condition for efficient resource utilization.

The success achieved by the European economies in meeting the convergence criteria set forth in the Maastricht treaty, along with the strong emphasis on price stability, provides a promising beginning. The unavoidable discipline required of fiscal authorities, however, poses unique challenges to the central bank's operations and ultimately will determine the stability of the currency. How remaining questions about this unprecedented effort are resolved will have a direct bearing on the standards of living in Europe in the early decades of the twenty-first century.

### ■ Footnote

1. The necessary conditions for a rising national debt-income ratio are that the real rate of interest exceeds the economy's growth rate and that a "primary" deficit exists. A primary deficit occurs when receipts and outlays, net of interest income and payments, are in deficit.

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