



# Summary

Fall 2003

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## CONTENTS

### INSTITUTE RESEARCH

#### Program: Distribution of Income and Wealth

- 4 EDWARD N. WOLFF, AJIT ZACHARIAS, and ASENA CANER, Household Wealth, Public Consumption, and Economic Well-Being in the United States

#### Program: Financial Markets and Monetary Policy

- 5 JÖRG BIBOW, Pushing Germany Off the Cliff Edge
- 6 PHILIP ARESTIS, MACHIKO NISSANKE, and HOWARD STEIN, Finance and Development: Institutional and Policy Alternatives to Financial Liberalization Theory
- 8 JÖRG BIBOW, Is Europe Doomed to Stagnation? An Analysis of the Current Crisis and Recommendations for Reforming Macroeconomic Policymaking in Euroland
- 9 PHILIP ARESTIS, Financial Sector Reforms in Developing Countries, with Special Reference to Egypt
- 11 PHILIP ARESTIS and MALCOLM SAWYER, Macroeconomic Policies of the Economic and Monetary Union: Theoretical Underpinnings and Challenges

#### Program: Federal Budget Policy

- 13 PHILIP ARESTIS and ELIAS KARAKITSOS, The Conditions for a Sustainable U.S. Recovery: The Role of Investment
- 14 PHILIP ARESTIS and ELIAS KARAKITSOS, How Long Can U.S. Consumers Carry the Economy on Their Shoulders?
- 15 PHILIP ARESTIS and MALCOLM SAWYER, Reinventing Fiscal Policy
- 17 PHILIP ARESTIS and MALCOLM SAWYER, The Case for Fiscal Policy

#### Explorations in Theory and Empirical Analysis

- 18 GREG HANNSGEN, Minsky's Acceleration Channel and the Role of Money

### PUBLICATIONS AND PRESENTATIONS

- 20 Publications and Presentations by Levy Institute Scholars
- 21 Recent Levy Institute Publications

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# Summary

Fall 2003

Volume 12, Number 4

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## LETTER FROM THE PRESIDENT

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To our readers:

This issue begins with a working paper by Senior Scholar Edward N. Wolff and Research Scholars Ajit Zacharias and Asena Caner, in the program on the distribution of income and wealth. Their paper is part of the Levy Institute Measure of Economic Well-Being (LIMEW) project. The authors find that household wealth and public consumption affect economic well-being. Their measures of economic well-being differ significantly from the official U.S. government measure.

A policy note by Research Associate Jörg Bibow opens the program on financial markets and monetary policy. He outlines Germany's poor economic record since unification and warns that the "German disease" (protracted policy-inflicted domestic demand stagnation) and the threat of a deflationary spiral is spreading throughout the Economic and Monetary Union (EMU).

A working paper by Institute Professor Philip Arestis, Machiko Nissanke, and Howard Stein finds that financial liberalization policy is built on shaky theoretical premises and a weak empirical foundation, which leads them to propose the adoption of an institutional-centric view of finance and development. To avoid instability in developing and transitional economies, capital accounts and access of banking systems to international loans must be carefully controlled and combined with banking structures that are diverse, participatory, and accessible, they say.

Bibow's working paper analyzes macroeconomic policymaking in euroland, finds a fundamental imbalance in the Maastricht regime, and proposes the reformation of the European Central Bank (ECB). The whole process of European integration is threatened by continued economic stagnation, he says. A nominal GDP target and the cooperation of fiscal and monetary policies would provide Europe with the growth anchor that it currently lacks.

Another Arestis working paper on financial liberalization policy focuses on Egypt, which was able to avoid serious problems with its financial system by introducing and implementing reforms slowly and cautiously. Strengthening the banking sector in Egypt, probably at the expense of the stock exchange, can be interpreted as a major policy innovation, says Arestis.

A working paper by Arestis and Senior Scholar Malcolm Sawyer outlines the theoretical foundation and policies of the EMU and finds them overtly deflationary, defective, and unable to cope with the effects of recession. Their paper complements Bibow's findings and proposes a number of institutional changes, such as coordinating monetary and fiscal policies and including economic growth and employment objectives alongside inflation considerations.

The program on federal budget policy begins with two working papers by Arestis and Elias Karakitsos. In the first, the authors analyze the factors affecting the anemic investment behavior in the United States, find serious imbalances in the corporate sector of the U.S. economy, and conclude that current fiscal policy will not provide the foundation for a new long-lasting business cycle. Industrial production suggests that a double-dip recession may have already started in manufacturing, they say. In the second, the authors identify two main threats to continued U.S. consumer resilience: a jobless recovery and growing personal sector imbalance. According to the authors, the outlook for consumption during the next year remains uncertain and the long-term outlook is bleak.

Two working papers by Arestis and Sawyer suggest that fiscal policy influences aggregate demand and, therefore, fiscal policy should be reinstated as a tool of macroeconomic policy. They believe that arguments against discretionary fiscal policy and long-term budget deficits are flawed because they do not consider the functional finance view.

Under explorations in theory and empirical analysis, a working paper by Resident Research Associate Greg Hannsgen confirms Hyman Minsky's theory of investment, even if one assumes that many of the critiques voiced by Minsky's post-Keynesian antagonists are correct.

As always, I welcome your comments and suggestions.

Dimitri B. Papadimitriou, *President*

## Program: Distribution of Income and Wealth

### Household Wealth, Public Consumption, and Economic Well-Being in the United States

EDWARD N. WOLFF, AJIT ZACHARIAS, and ASENA CANER

Working Paper No. 386, September 2003

[www.levy.org/docs/wrkpap/papers/386.html](http://www.levy.org/docs/wrkpap/papers/386.html)

Conventional measures for assessing economic well-being focus exclusively on money income and do not adequately reflect the role of household wealth and public expenditures. Senior Scholar Edward N. Wolff and Research Scholars Ajit Zacharias and Asena Caner outline an approach for integrating household wealth and public consumption into a more comprehensive measure in order to understand the level and distribution of economic well-being. Their approach follows the Levy Institute Measure of Economic Well-Being (LIMEW) model, which is designed to assess economic well-being for the noninstitutional population and significant demographic groups in the United States (*see* Working Paper No. 372). They find that their measure of well-being differs significantly from the official U.S. government measure—gross money income. There is a higher growth rate of well-being at the median, and inequality of income increases less over time.

The authors focus on 1989 and 2000 and use public files developed by the U.S. Census Bureau from the Current Population Survey's Annual Demographic Supplement (ADS), the most comprehensive source for information about household income, housing tenure, receipt of noncash transfers, and many key demographic characteristics of households. They integrate the ADS files with household wealth information from the Federal Reserve Board's Survey of Consumer Finances (SCF), using statistical matching based on household characteristics such as race, family type, and the age of the head of the household. In the case of government expenditures, the authors use the expenditure category that appears on the product side of the U.S. National Income

and Product Accounts (NIPA): government consumption expenditures and gross investment. Other supplemental data, drawn from sources such as the Annual Survey of Government Finances and personal transportation surveys, are used to allocate government expenditures among households, by state and by expenditure function.

The authors examine the overall distribution of three measures: money income, wealth-adjusted income (WI), and public-consumption-adjusted income (PCI). Marketable wealth (net worth) is defined as the current value of all marketable or fungible assets, less the current value of debts. This definition portrays wealth as a store of value and, therefore, a source of potential consumption reflecting the level of well-being associated with a family's holdings (consumer durables, future Social Security, and retirement benefits are excluded because they are not in the direct control of households and cannot be marketed).

Household net worth is incorporated into the measure of household well-being by adding two factors to money income: imputed rent from owner-occupied housing and the lifetime annuity value of nonhome net worth. The approach differs from the standard by distinguishing between home and nonhome wealth and by accounting for the differences in portfolio composition of nonhome wealth. To measure WI, the ADS money income (excluding property income) is combined with the imputed income flows from wealth. Household patterns of public consumption expenditures are imputed based on other surveys (e.g., Nationwide Personal Transportation Survey). Expenditures are grouped according to purpose, using the functional classification in the NIPA, and distributed among the states.

The authors find that their WI is approximately 30 percent higher than the traditional measure at the mean. Mean and median net worth increased between 1989 and 2000, but the mean (dominated by the value of financial assets and retire-

ment assets) increased more rapidly than the median, a phenomenon that suggests a growing inequality. The means of imputed rent, property income, and annuities relative to the mean of money income all appear to be stable over time.

Unlike traditional measures, the authors do not consider that all public expenditures augment household consumption. To derive PCI, the authors allocate expenditures between households and other sectors based on a set of assumptions regarding a schema of 44 functions. Functions providing no directly usable services to the household sector include social overheads, such as national defense, general public service, law courts, and prisons. Functions dedicated to the household sector comprise elementary and secondary education, and income security. Functions serving the household and non-household sectors—such as economic affairs and housing and community services—are allocated on the basis of available empirical information. In 1989 approximately 43 percent of total government expenditures were allocated to the household sector. In 2000 that figure was 51 percent. The increase over time reflects, primarily, the declining share of national defense expenditures.

The authors define two major categories of public consumption, based on whether it is distributed equally across persons or according to household-level or person-level characteristics (such as income by type, employment status, and vehicle ownership). In distributing public consumption among households, the authors follow the same principles of

direct usage and cost responsibility as those used in allocating government expenditures between the household and nonhousehold sectors.

The authors find that average household public consumption was \$8,241 in 2000, a figure 16 percent higher than in 1989. They also find that the ratio of public consumption to household income remained unchanged, although there were differences by decile of income and by function. Households in the top income deciles experienced the fastest growth in both money income and public consumption. The relative importance of public consumption declined for households at the tail ends of the distribution and increased for those in the middle.

Furthermore, the authors find that the distribution of WI is less equal than the distribution of money income, while the distribution of PCI is more equal. They confirm their finding by using both the Gini and the Atkinson measures of inequality. According to the authors, inequality changes dramatically if the conventional method is adjusted for household wealth or public consumption.

The authors note that an adequate measure of economic well-being should also take into account factors such as taxes, government transfers, and nonmarket production (in particular, household production). They intend to incorporate these factors into future measures, analyze intertemporal changes in inequality, and study the distribution of well-being across key demographic groups.

## Program: Financial Markets and Monetary Policy

### Pushing Germany Off the Cliff Edge

JÖRG BIBOW

Policy Note 2003/4

[www.levy.org/docs/pn/03-4.html](http://www.levy.org/docs/pn/03-4.html)

Since the 2000–2001 economic downturn, public finances in Germany are in a worse state than at any time since unification. The German GDP growth rate has collapsed and the unemployment rate exceeds 10 percent. According to Research

Associate Jörg Bibow of the University of Hamburg, Germany, domestic demand has stagnated as the government continues its program of cutting its structural deficit until the budget is balanced and the Maastricht regime forces upon euroland those very policies that have wrecked Germany.

Germany's poor economic record since 1992 is not the result of "unification shock," nor is it the result of structural problems (i.e., rigid labor markets), says Bibow. Rather, contractionary macroeconomic policies that arose in response to

unification pushed Germany into a situation of unstable debt dynamics. Since Germany provided the blueprint for Europe's stability-oriented macroeconomic policy regime, the risk is that the "German disease" is spreading throughout the regime and, potentially, beyond Europe.

Germany's central bank, the Bundesbank, fearing that strong economic growth would lead inevitably to rising inflation, strongly opposed the government's use of deficit spending in coping with the unification challenge. The problem of unsustainable public finances arose with the sharp recession of 1992–93 and government measures to reduce borrowing, both of which caused headline consumer price inflation and wage inflation to increase (while market-determined inflation remained remarkably stable). The strategies of the government and the Bundesbank after unification did not heed the existing favorable alignment among Germany's key economic parameters (interest rates, deficit and debt ratios, and GDP growth rates).

If Germany's fiscal and monetary policies had been more in line with economic theory and had followed the best-practices example of the United States, the country easily could have achieved a more favorable economic performance in the 1990s, asserts Bibow. The Bundesbank's aggressive and single-minded pursuit of price stability has exacted a steep penalty in terms of high unemployment and low economic growth, a penalty that has had stark consequences for public finances. Bibow notes that the Stability and Growth Pact (SGP), which Germany forced upon its European partners, is now posing an acute problem, as the SGP's enforcement continues to result in the enactment of new discretionary measures meant to cut public expenditures and raise revenues. These measures are supported by another "made in Germany" product, the European Central Bank (ECB), which focuses on a goal of maintaining price stability and is obsessed with inflation in today's deflationary environment.

It has been popular to blame Germany's and euroland's poor performance on allegedly manifold structural problems. The actual underlying disease, says Bibow, is protracted policy-inflicted domestic demand stagnation. Cutting public investment and hiking direct taxes and social security contributions cause structural problems (rising nonwage labor costs and disincentives to work and hire). These unpleasant supply-side by-products of contractionary demand policies lead to

a vicious cycle of stagnation and fiscal squeeze. Structural reforms under way in Germany today are part of yet another fiscal austerity package. All budgetary planning for 2003–05 is still based on growth assumptions that look increasingly optimistic and there is a risk of further contraction of disposable incomes by way of a new round of discretionary hikes in social security contributions and emergency savings throughout the public sector. This event might be sufficient to push Germany off the cliff edge and raise its budget deficit.

Given that Germany's inflation rate is close to zero, the ECB's remaining room for cutting nominal interest rates may prove insufficient and come too late to stop the German economy from slipping into a deflationary spiral. There is the equal chance that Germany could pull the rest of euroland down with it, rather than euroland's providing enough counterweight if Germany is pushed off the cliff edge. The fiscal positions of France and Italy are not fundamentally different from those of Germany and they are also under pressure for additional procyclical consolidation.

Bibow notes that the recovery of the euroland economy was negligible in 2002 and mainly export driven as domestic demand stabilized at a depressed level. The ECB has a penchant for referring to important imbalances "elsewhere in the world economy" as hindering growth in euroland. However, euroland relies on U.S. economic growth to stimulate the world economy. Euroland's notorious free-riding strategy blocks one possible route to rectifying global current account imbalances (i.e., euroland's domestic-demand growth outpacing that of the United States). The author believes that economic recovery in euroland is no longer just an uphill struggle against a strengthening currency. It is also a struggle against rising unemployment, an SGP-imposed fiscal squeeze, and some banking problems.

### **Finance and Development: Institutional and Policy Alternatives to Financial Liberalization Theory**

PHILIP ARESTIS, MACHIKO NISSANKE, and HOWARD STEIN  
Working Paper No. 377, April 2003  
[www.levy.org/docs/wrkpap/papers/377.html](http://www.levy.org/docs/wrkpap/papers/377.html)

There are many examples of financial fragility and banking crises following the implementation of financial liberalization

policies by various governments throughout the world. According to Institute Professor Philip Arestis; Machiko Nissanke of the School of Oriental and African Studies, University of London; and Howard Stein, Roosevelt University, Chicago, financial liberalization policy is built on shaky theoretical premises. These scholars, therefore, question the rationale of governments and institutions, such as the International Monetary Fund and World Bank, that adopt financial liberalization policy prescriptions based on a very shallow understanding of the dynamic relationship between finance and economic development.

Current financial liberalization theory leans toward the “supply-leading” relationship between growth and development: Investment is self-financing and the expansion of financial institutions leads to economic growth. Financial intermediaries set interest rates to balance the supply and demand for savings of borrowers and depositors. The key to economic expansion is to alter the incentives between consumption and saving.

According to the imperfect information school, many imperfections, such as the divergence between the social and private costs of bank failures and between the private and social benefits of loans, are embedded in financial markets. The school recognizes that financial markets, left to their own devices, are generally incapable of providing correct signals to the marketplace—they cannot, for example, set interest rates—and, contrary to financial liberalization theory, greater competition erodes franchise value, which, in turn, reduces incentives for prudential behavior and substantially increases risk.

The authors outline several fundamental problems in the financial liberalization hypothesis. Those problems include the hypothesis’s weak theoretical base and poor empirical performance. The holding of money is subject to social obligations and constraints and is not driven simply by investment needs, the productivity of capital, and the real rate of return. Capital markets are fragmented, have never operated under the auspices of a single unifying marginal rate of return, and are replete with different levels of risk and uncertainty. The authors question the validity of the competitive-model assumption within financial liberalization theory, citing profound divergence between the model and the financial world. Although the authors agree that many mar-

ket imperfections are embedded in the financial markets, they believe that the problem of finance in developing countries is much deeper and more multifaceted than suggested by the imperfect information school.

According to the authors, interest rates, while important, are only one component influencing the decision-making process in financial systems. They contend that, contrary to McKinnon’s outline of the optimal sequencing of events—controlling inflation, deregulating interest rates, privatizing and commercializing banks, unifying foreign exchange rates, and liberalizing trade prior to opening up the capital account—there is increasing evidence that any sequence produces the same results. The results that the authors list include rising interest rates, credit contraction, import price inflation, and lower domestic demand. They also point out that the likelihood of a banking crisis increases with time.

The authors find that politics can play a major role in attempts to reorganize a financial system after a banking crisis (e.g., Nigeria). They note the importance of examining the underlying structure of a developing economy, where instability is often the rule. They also note that financial liberalization leads to a decline in duration of loans and a rise in holdings of government paper (e.g., Venezuela, Nigeria, Russia).

Econometric testing of the financial liberalization hypothesis shows that support for it is not very strong. There are growing indications confirming Keynes’s view of the links among interest rates, investment, and saving. Investment, growth, and rising incomes lead to saving, rather than vice versa, and there is little proof of a positive relationship between interest rates and saving. Some surveys have shown declining investment, few examples of increased saving, rising spreads between deposit and lending rates, and falling GDP growth rates. These results lead the authors to support the development of alternatives to financial liberalization theory.

Since ideology and history play a central role in transforming institutions, the authors propose the adoption of an institutional-centric view of finance and development. They outline five interactive, institutionally related components of financial systems: norms, incentives, regulations, capacities, and organizations. One of the great tragedies of liberalization, they say, is the asymmetric expansion of banking entities as compared to the regulatory capacities of supervising agencies. The authors recommend that countries assume the

risk for borrowers and depositors, and act as intermediaries in creating assorted ownership and banking options that address the multitiered financial needs of developing economies. They suggest that, to avoid instability, capital accounts and access of banking systems to international loans must be carefully controlled.

In the wake of widespread failure of financial liberalization policies in the 1990s, developing and transitional economies, such as those of Hungary and the Czech Republic, have resorted to selling financial institutions to foreign banks using a single organizational construct, the commercial bank. Some countries (e.g., Tanzania) have simply moved from state ownership to foreign ownership. The new foreign banks, therefore, hold massive excess reserves in the form of government paper, service a few wealthy customers, and export national savings to safer havens. According to the authors, for banking norms to support economic development, they need to be absorbed into the consciousness of the general population, which is more likely to happen when banking structures are diverse, participatory, and accessible.

### **Is Europe Doomed to Stagnation? An Analysis of the Current Crisis and Recommendations for Reforming Macroeconomic Policymaking in Euroland**

JÖRG BIBOW

Working Paper No. 379, May 2003

[www.levy.org/docs/wrkpap/papers/379.html](http://www.levy.org/docs/wrkpap/papers/379.html)

Euroland is experiencing very low economic growth rates and high unemployment. Many European government officials blame the recent 2001 slowdown and stagnation on external shocks to the economy, such as the bursting of the Internet and telecommunications bubble, stock market decline, and a surge in oil prices. According to Research Associate Jörg Bibow of the University of Hamburg, Germany, the European Central Bank (ECB) has failed to stabilize the economy. The ECB's aggressive interest rate hikes in 2000 and cautious rate cuts in 2001–02 thoroughly misjudged developments, says Bibow, who concludes that the ECB regime must be reformed so that it plays a vital role in stimulating domestic demand and stabilizing the economy. Bibow recommends a nominal GDP target and the cooperation of fiscal and mon-

etary policies, which would provide Europe with the growth anchor that it currently lacks.

A key idea behind the creation of the Economic and Monetary Union (EMU) was the establishment of an economic area subject to common policymaking and, therefore, resembling a closed economy. The ECB, however, has blamed external factors, rather than fiscal and monetary policies, for the deceleration of economic growth in the eurozone. The ECB, notes Bibow, has not addressed two central events of the 1998 and 2001 economic slowdowns: the interest rate conversion process and associated price surges since the mid 1990s, and the near doubling of ECB interest rates in the year after October 1999. Bibow believes that euroland's prosperity was the result of "free riding" on the United States's "new economy" stimulus and that European policymakers should have been alert to the ramifications of the latest U.S. economic slump. Bibow also notes that euroland's wage anchor has been remarkably stable since the mid 1990s and the structural primary surpluses from 1997 to 2000 came at a high price in terms of growth, as financial ministers inflicted a severe fiscal tightening on the European economy during the 1990s.

According to Bibow, the ECB hiked interest rates aggressively as a result of its obsession with inflation and a remarkable disrespect for economic growth. The markets perceived these rate hikes as growth risks and indications of a weaker outlook for the euro. As a result, aggregate demand was skewed further toward exports, while interest rate hikes took their toll on domestic demand. The ECB fully misjudged the impact of its aggressive interest rate hikes on domestic demand and the euro's exchange rate (and inflation) and seemed unaware of its stabilization role within the Maastricht regime.

It is crucial to get the empirical record straight, says Bibow. Export growth plunged in 2001, long after domestic demand fell, and, by the end of the year, the domestic-demand growth rate had turned negative. Net exports kept euroland afloat and prevented the GDP from shrinking during the 2001 slowdown, but there was no recovery in 2002—domestic demand continued to stagnate at a depressed level. The current stagnation is not a result of external developments, says Bibow; blame should focus instead on domestic factors such as macroeconomic policymaking.

Bibow observes a fundamental imbalance in the Maastricht regime: Although a common market and, essen-



tially, a common currency are controlled by supranational European Union (EU) institutions, economic and fiscal policies remain under national control. The regime is a “made in Germany” product and features such as Bundesbank independence have become conventional wisdom at the EU’s key policymaking institutions (the ECB and the European Commission). According to the regime, fiscal discipline improves economic performance through two main channels: lower interest rates and fiscal consolidation. The only coordination of national fiscal policies, says Bibow, stems from the imposed discipline that demands that deficits be cut and the budget be balanced at any price. Monetary policy, therefore, is the only instrument that manages domestic demand growth.

Euroland’s unsuccessful attempts to get its debt ratio under control results from a procyclical consolidation strategy and nonaccommodating monetary policies. Furthermore, the debt ratio is on the rise again, due to protracted stagnation rather than fiscal profligacy. The crucial point, says Bibow, is that, since interest rates are manipulated by the ECB, fiscal consolidation will not steer interest rates toward levels conducive to potential growth at full employment. What is needed is “easy money” in the Wicksellian-Keynesian sense (i.e., monetary policies that deliberately push interest rates below neutral levels when an economy remains in a state of equilibrium characterized by stagnation and high unemployment). These policies were in effect in the United States during the 1990s. Bibow contends that gearing monetary policy toward GDP growth raises employment, shrinks the interest burden, and leads to fiscal consolidation.

The author also notes that by raising taxes and social security contributions in response to recession and a soaring budget deficit Germany has slipped into a deflationary spiral. Indirect tax hikes keep inflation up and play a role in forestalling monetary easing. Other EU countries (e.g., France, Italy, Portugal) are also operating in a fiscal straitjacket that calls for perverse responses to recession. The 2006 balanced budget deadline portends another round of severe fiscal tightening in Europe.

The Stability and Growth Pact’s balanced budget rule implies that the debt ratio will converge to zero in the long run, a goal that not only lacks any basis in economic theory but causes instability and stagnation, as well. Bibow suggests

an alternative approach that involves a shift toward variables (such as tax rates, the rules underlying entitlement spending, and the volume of discretionary spending) that are directly controlled by governments. He believes that policy must be forward-looking and ignore temporary price shocks, and the inflation target must not be too low.

Two factors explain the United States’s superior economic performance: a quick monetary easing process by the Fed and a dramatic fiscal easing by the George W. Bush administration. The combined effect amounted to a budgetary swing of approximately 5 percent of GDP. Bibow also notes the impressive performance in the United Kingdom since 1992, including its sound macroeconomic demand management and better coping mechanisms during the 2001 slowdown. The EU accession countries and the whole process of European integration is threatened by continued EU economic stagnation, says Bibow.

Bibow suggests the establishment of a wage norm, at the EU level, that focuses on productivity growth plus some desired inflation trend (i.e., tying wage inflation to nominal GDP growth—prices anchored by wages). In order to enforce discipline throughout the EU, this objective would require symmetric coordination and enforcement mechanisms. A fundamental overhaul of euroland’s macroeconomic policymaking arrangements, including the end of the ECB’s unbounded discretion in monetary policy, is urgently needed, says the author.

### **Financial Sector Reforms in Developing Countries, with Special Reference to Egypt**

PHILIP ARESTIS

Working Paper No. 383, July 2003

[www.levy.org/docs/wrkpap/papers/383.html](http://www.levy.org/docs/wrkpap/papers/383.html)

Financial reforms have been a part of development policy through the work of the International Monetary Fund (IMF) and the World Bank. Recent studies have shown, however, that banking and financial crises are more likely to occur in liberalized financial systems. According to Institute Professor Philip Arestis these crises are the result of policies based on a model with an inaccurate theoretical framework and a weak empirical foundation. Egypt was able to avoid serious problems with

its financial system reforms, says Arestis, by introducing and implementing reforms slowly and cautiously. He recommends a strong regulatory framework with some degree of control over lending and deposit rates of newly privatized and inexperienced banks, which are prone to inducing excessively high real interest rates.

The theoretical model suggests liberalizing the financial markets and letting the free market determine the allocation of credit. The real rate of interest would adjust to its equilibrium level, investment projects with low yields would be eliminated, and the overall efficiency of investments would be enhanced. As the real rate of interest increased, saving and the total real supply of credit would increase and induce more investment, which would stimulate economic growth and increase the average productivity of capital. Further enhancements to the model include the removal of interest rate ceilings, reduction of reserve requirements, and abolishment of directed credit programs.

Key assumptions in the model, which are highly unlikely, says Arestis, are perfect information, profit-maximizing competitive behavior by commercial banks, and an institution-free analysis with scant attention to the role of stock markets. Asymmetric information leads to adverse selection and moral hazard, and profit-maximizing competitive behavior is particularly unrealistic in the case of developing countries, where the banking sector is operated as an oligopoly. The crisis in Southeast Asia has demonstrated weaknesses in the legal framework (e.g., deficiency of bankruptcy laws and procedures) and a lack of attention toward stock market development.

The author reviews the financial crises of countries in the period from 1977 to 1998. He notes that two-thirds of the members of the IMF have experienced significant banking sector problems and that financial crises have many common features: They are preceded by financial reforms and deregulation. There is excessive lending on such assets as property and stocks. There are sharp increases in capital inflows, which lead to currency appreciation and deterioration of the capital account. There is a reversal of capital flows leading to capital losses. He finds that the cost to resolve the crises was enormous: from 10 percent of GDP in Hungary, Tanzania, and Brazil to over 50 percent of GDP in Argentina. Interest rates often exceeded 20 percent and there were bank failures, other

bankruptcies, and extreme asset volatility, which were followed by severe and prolonged recession.

Financial reforms unleashed a massive demand for credit by households and firms (under the expectation that government bailouts would prevent bank failures), which was not offset by a comparable increase in the saving rate. An increase in foreign saving (external debt) made the economies vulnerable to oscillations in the international economy, increased the foreign debt-to-reserves ratio, and increased the likelihood of currency crises. Financial reforms replaced domestic with international markets and resulted in a flourish of short-term speculative activities.

The author outlines four main findings: (1) The banking crises were frequent and severe; (2) The cost of the crises to the local economies was substantial and lowered economic activity; (3) The banking crisis episodes were unique in monetary history; and (4) Spillover effects on the industrialized countries became a real possibility.

During the 1990s southeast Asian countries undertook extensive financial deregulation, including the ability to borrow abroad without government control and coordination, so a credit boom ensued. Investors in the region had higher returns because growth and interest rates were higher and currencies were pegged to the U.S. dollar. Large net private capital inflows (private and short-term) escalated foreign debt and were directed toward speculative activities (real estate and equities). When the bubble burst there was contagion across countries and the region's pegged currencies did not move in response to fundamental changes in the domestic economies.

The author finds that the principle reason for the southeast Asian financial crisis was insufficient government control over the financial liberalization process. He notes that these economies are different because they have high levels of saving recycled as loans to corporations, and companies are closely linked with governments. These differences imply that financial liberalization in Asia has higher costs and smaller benefits. He further notes that IMF officials and leading economists now favor capital controls as a means to overcome financial crises and to protect countries from international financial instability.

Arestis outlines three reasons why the stock market is an important mechanism for promoting economic growth in developing countries: (1) High interest rates encourage firms

to issue equity; (2) International investors are able to gain access to developing economies; and (3) It is often conditionally imposed as part of financial liberalization packages. The success of the stock market depends on a developing country's efficiency in pricing risk, which, in turn, depends on many institutional factors (e.g., the legal framework, transparency, bankruptcy laws). Otherwise there is excessive volatility, lack of transparency, and insider trading.

The modern version of the liberalization thesis is an attempt to account for the implications of imperfect information and institutions. Arestis notes that even in cases of correct sequencing (e.g., trade liberalization before financial liberalization), there was not much success. Financial liberalization should be approached cautiously, he says, especially if institutions are not fully developed. Even under the best circumstances (e.g., Southeast Asia) financial liberalization is risky. Adequate banking supervision, macroeconomic stability, appropriate sequencing of reforms, and transparency are not sufficient to prevent financial crises. The list should also include strong and uncorrupt institutions, including the civil service and the central bank; a well-functioning legal system that effectively enforces contracts and property rights; and efficient bankruptcy laws and procedures. The success of financial reforms depends on the level of interest rates achieved following the introduction and implementation of the reforms.

Arestis reviews the Egyptian experience with financial reforms during the period from 1981 to 2001. The 1981–91 period was characterized by an attempt to create more financial intermediation, but state-owned banks dominated the financial sector and financial reforms were very slow. In 1991 Egypt embarked on extensive financial and economic reforms, as well as structural adjustment programs, in accordance with the prescriptions of the IMF and the World Bank. The first stage of the reforms was characterized by orthodox macroeconomic stabilization programs: substantial reductions in the fiscal deficit and of monetary restraints; financial liberalization measures; and major restructuring of the capital and foreign exchange markets. The second stage continued with the liberalization of prices, but also embraced foreign trade liberalization along with privatization and deregulation.

Arestis finds that Egypt avoided serious problems in its financial system; there were no major banking or currency crises. He notes four economic indicators of particular sig-

nificance: (1) The spread between lending and borrowing rates narrowed and reached a low of 3.4 percent in 1999; (2) Overall provisioning declined, reflecting improved loan quality; (3) The profitability of the four public banks steadily increased; and (4) There was indirect bank-specific assistance in the form of Treasury Bills, which were mainly held by the commercial banks. The financial reforms were introduced gradually and cautiously and remain incomplete. A degree of control over lending and deposit rates may very well be necessary, concludes Arestis.

The emphasis in the 1980s and 1990s on strengthening the banking sector, probably at the expense of the stock exchange, can be interpreted as a major policy innovation, says the author. It strengthened the institutional framework of the economy and enabled Egypt to avoid the speculative excesses that could have been induced by the stock market.

### **Macroeconomic Policies of the Economic and Monetary Union: Theoretical Underpinnings and Challenges**

PHILIP ARESTIS and MALCOLM SAWYER

Working Paper No. 385, August 2003

[www.levy.org/docs/wrkpap/papers/385.html](http://www.levy.org/docs/wrkpap/papers/385.html)

The Economic and Monetary Union (EMU) faces the challenge of facilitating full employment and low inflation in the euro area. According to Institute Professor Philip Arestis and Senior Scholar Malcolm Sawyer, the theoretical foundation and policies of the EMU are overtly deflationary, therefore, fiscal and monetary tightening, along with currency appreciation, cannot deliver a healthy macroeconomic landscape. They propose changes to the EMU model, such as the removal of political constraints on national budget positions and the setting of fiscal policy by national governments; creation, strengthening, and coordination of national fiscal institutions and policies, so that monetary authorities do not dominate economic policy making; and coordination of monetary and fiscal policies. Monetary policy should be recast to include economic growth and employment objectives alongside inflation considerations, the authors say.

Arestis and Sawyer outline the theoretical foundations of the EMU model, such as the “new consensus” macroeconomics paradigm (*see* Working Paper Nos. 363 and 364); the

EMU's institutions for conducting monetary and fiscal policies (*see* Working Paper No. 357 and Policy Note 2003/2); and the implications of EMU monetary and fiscal policies (*see* Working Paper No. 369). They note that there is a complete separation between the monetary and fiscal authorities and little coordination when implementing policies. They also note that the EMU's outlook for economic growth, unemployment, and inflation is poor relative to the United States and Great Britain.

Recent theoretical and empirical studies suggest that capital stock is an important determinant of the nonaccelerating inflation rate of unemployment (NAIRU), therefore, aggregate demand is important in reducing unemployment. There is also evidence that the euro area's "inflexible" labor markets are not responsible for the region's high unemployment rate.

The official doctrine of the European Central Bank (ECB) is based on a "two-pillar" monetary strategy: (1) a commitment to analyze monetary developments in terms of future price developments (based on a target of 4.5 percent of the M3 money supply), and (2) a broadly based assessment of the outlook (e.g., labor market, fiscal policy, and financial market indicators; and the euro exchange rate) of price developments and the risks to price stability. The strategy is based on the theory that different time perspectives require different foci in the conduct of monetary policy. The ECB focuses on long-term price trends that require monetary analysis and it believes strongly in the long-term link between money supply and inflation.

The authors outline a number of defects in the ECB's monetary policy (*see* Working Paper No. 345). They note that there is considerable doubt regarding the ECB's ability to respond to recession and that the ECB is ignorant with respect to the transmission mechanism of monetary policy. Despite economic problems and the threat of deflation, the ECB continues to defend its relatively high interest rates.

The authors review fiscal policy in the EMU and conclude that there is a deflationary bias in the operation of the Stability and Growth Pact (SGP) and that management does not adhere to its own rules. They note that the European Commission has admitted that, in view of economic weaknesses in the euro area, SGP fiscal rules relating to the euro need to be more flexible. The commission relaxed balanced budget deadlines and stated that it would judge fiscal deficits

in relation to cyclical economic conditions. The authors further note that the economic slowdown shows that the fiscal rules of the SGP are counterproductive and cannot cope with the effects of recession.

Countries differ with respect to variations in their GDP and budget sensitivities during the course of the business cycle. The SGP assumes, without justification, that any level of output and employment is consistent with a balanced budget and that governments are required to fund investment programs from current tax revenue. There is no reason to think that a balanced budget is consistent with high levels of employment or that the SGP-imposed deficit limit (3 percent of GDP) allows the automatic stabilizers to work. The SGP imposes a fiscal policy that suits no one, say the authors.

Arestis and Sawyer outline recent proposals by Working Group IV of the European Convention, the Centre for European Reform, and the U.K. Treasury. They consider all the proposals incomplete because the deflationary bias remains. In considering a proposal that the ECB abandon its two-pillar strategy and adopt in its stead the international-best-practice strategy of flexible inflation (as implemented by the Banks of England and Norway), the authors conclude there is no evidence that inflation targeting improves a country's economic performance.

The paper outlines obstacles to full employment and elements needed to achieve high levels of economic activity in the euro area (*see* Working Paper No. 345). With the goal of producing full employment and low inflation, the authors propose a number of EMU institutional changes: abolishing the SGP, creating a substantial EU budget (e.g., 5 percent of GDP) as a fiscal stimulus in conjunction with coordinating national fiscal policies, ensuring that active fiscal policy remains under the control of national governments, and changing the objectives and operations of the ECB (e.g., having it function as a lender of last resort).

## Program: Federal Budget Policy

### **The Conditions for a Sustainable U.S. Recovery:**

#### **The Role of Investment**

PHILIP ARESTIS and ELIAS KARAKITSOS

Working Paper No. 378, May 2003

[www.levy.org/docs/wrkpap/papers/378.html](http://www.levy.org/docs/wrkpap/papers/378.html)

Although interest rates and debt service costs in the current economic downturn are lower than in previous downturns, credit risk has soared and investment rebound has been anemic since the trough of the business cycle. According to Institute Professor Philip Arestis and Elias Karakitsos of Trafalgar Asset Managers Ltd., London, investment will not recover until the financial health of the corporate sector improves and credit risk abates. It is unlikely that these conditions will be met in the short run, the authors say, because it will take time to correct the serious imbalances in the corporate sector of the U.S. economy. Although the U.S. government's fiscal policy will boost investment in the short run, it will not provide the foundation for a new long-lasting business cycle. Investment could collapse, the authors argue, because the weak economic recovery is susceptible to shocks and the economy could experience a double-dip recession.

The authors analyze the short- and long-term factors affecting investment behavior and compare current investment with that of previous business cycles. They find that investment, which is a coincident or lagging indicator, fell 11 percent leading up to the trough of the last recession and experienced the steepest decline of all recessions (-3.4 percent of GDP). Investment in the first year of recovery grew by only 0.7 percent of GDP (compared to a recession average rise of 2.4 percent), a figure comparable in magnitude to the 1991 recession.

In terms of the short-term factors affecting investment and a sustainable recovery, the authors assert the need for a return to profitability and higher capacity utilization, both of which have not yet recovered from the euphoria of the second half of the 1990s. Coincident or leading indicators of the trough of the business cycle include nonfarm- and nonfinancial-corporate profits per unit of output, unit labor

costs, and inventory-to-sales ratios in manufacturing. These indicators show that growth rates are slowing, labor and non-labor costs are increasing, and future corporate profitability is in doubt. Since demand is unlikely to pick up, the authors posit, a new round of layoffs and a double-dip recession may occur before profits recover. In fact, although there are no excess inventories, industrial production (a lagging indicator) suggests that a double-dip recession may have already started in manufacturing.

In terms of the long-term factors affecting investment, the authors find that debt levels have continued to rise throughout the recovery and now stand at 48 percent of GDP. The stock of debt as a percent of corporate internal funds (debt leverage) soared 173 percentage points during the business cycle downturn but, after a year in recovery, debt now stands at 654 percent of internal funds (i.e., only 54 percentage points above its starting level). Although deleveraging has been progressing very well, the authors caution that it may have stalled now that profit improvements appear to have ended.

Retrenchment depends on the ease with which the stock of debt is refinanced and the debt is serviced. The authors find that companies switched to long-term debt (e.g., corporate bonds, municipal securities, mortgages) earlier and to a greater extent (8 percent of total debt) during the last business cycle downturn as compared to previous downturns. It has been more expensive, in the first year of recovery, for high-grade companies to borrow from the capital markets than from banks (the rate spread has increased by 4.75 percent), so the switch to long-term debt has not helped net cash flow. Although debt servicing as a proportion of net cash flow is lower than average, the current recovery is weak.

The authors develop a model that includes four short-term variables (capacity utilization, industrial production, corporate profits, and real interest rates), and two long-term variables (ratio of debt to investment and of corporate sector net worth to GDP). They find that industrial production and capacity utilization were the main determinants of investment in demand-led business cycles during the 1947–72 period, while the addition of corporate profitability and real

interest rates helped to explain investment in the supply-led business cycles during the 1973–84 period. Long- and short-run factors were needed to explain investment in the last two business cycles.

The majority view is that investment will pick up in the first half of 2003 and the recovery will be sustainable. The minority view is that it will take some time to correct the corporate sector imbalances. The authors use two scenarios, a double-dip recession and an economic recovery resulting from fiscal policy, to forecast how the majority and minority views might explain investment behavior.

In the first scenario, investment would fall by 15.4 percent (relative to the first quarter of 2003) by the end of the second year of recession. The overall impact on investment would be -21 percent, as captured by the steady-state multiplier (industrial production declines by 2.5 percent). The authors note that investment might collapse during a double-dip recession because the long-range factors that affect investment are unfavorable and there are serious imbalances in the corporate sector.

In the second scenario industrial production would recover to a sustainable figure of 2.5 percent over the previous year. Investment would increase by 10 percent in the year following the tax reduction package but would stall in the second year and ultimately fall by 3.4 percent (relative to December 2002 investment levels). This scenario reflects previous findings that indicate that short-term incentives to invest (e.g., an increase in depreciation allowances in 2003) are largely irrelevant to most long-term investment plans.

A sensitivity analysis of the authors' model shows that in the first year of economic recovery the largest effects are exerted on capacity utilization, debt, and corporate sector net worth, in that order. In terms of investment, industrial production is the most important determinant, followed by profits and the real cost of borrowing. Fiscal policy measures, therefore, cannot perpetuate a sustainable economic recovery, and tax reductions are wasted unless corporate imbalances are corrected through processes such as debt deflation.

## **How Long Can U.S. Consumers**

### **Carry the Economy on Their Shoulders?**

PHILIP ARESTIS and ELIAS KARAKITSOS

Working Paper No. 380, May 2003

[www.levy.org/docs/wrkpap/papers/380.html](http://www.levy.org/docs/wrkpap/papers/380.html)

Since a large proportion of a country's GDP relates to consumption, consumer behavior is extremely important in analyzing the determinants of aggregate demand. Noting that consumers have been carrying the U.S. economy on their shoulders, Institute Professor Philip Arestis and Elias Karakitsos of Trafalgar Asset Managers, Ltd., London, pose the question, "How long can consumers continue to be resilient and prop up the economy?" The authors believe the U.S. consumer is on a tightrope, as losses in the equity markets have been partly offset by gains in real estate and fiscal support. They identify two main threats to continued consumer resilience: a jobless recovery and growing personal sector imbalance. Their analysis of real disposable income and the relationships among interest rates, net wealth, and fiscal policy shows that the gap between financial assets and debt has widened and that households are vulnerable to exogenous shocks to the economy, shocks that would cause them to save more. According to the authors, the outlook for consumption during the next year remains uncertain and the long-term outlook is bleak.

There are two views regarding the outlook for consumption. Either it will falter as a result of a new round of layoffs, excess capacity, and a double-dip recession or it will remain robust as a result of easy fiscal and monetary policy. The latter is the consensus. The authors note that although personal income is recovering, it is below the average of previous business cycles. They also note that the recovery in wages and salaries has been uniform across services, distributive industries, and manufacturing; that other earned personal income is growing satisfactorily; but that unearned personal income is struggling to recover. Due to fiscal support (e.g., net transfers increased and taxes fell), the recovery in disposable personal income has been more pronounced than that in personal income. The authors find that the increase in the annual rate of recovery in real disposable income, from 0.2 percent in November 2001 to 6.1 percent in November 2002, has been spectacular, which explains why consumers have been resil-

ient. They point out, however, that the most significant boost to real disposable income has come from fiscal policy, which is fading away. Therefore, long-term factors (i.e., the saving ratio, which is determined by wealth, job security, and consumer confidence) need to be included in the consumption outlook.

The authors also point out that a rise in the saving ratio reflects increased caution on the part of consumers, real estate as a percent of disposable income is at an all time high, debt has continued to increase, reduction in net wealth has been huge, and job security and income growth depend on the outlook for the corporate sector, an outlook that is not favorable. Moreover, the process of repaying debt through retrenchment has not yet started.

The authors review economic theory with respect to saving and find that, during the business cycle, the saving ratio depends not only on the ratio of permanent-to-current income, but also on the wealth-to-income ratio. They conclude that in a leveraged economy the saving ratio moves countercyclically (i.e., falling in a boom and rising in a recession). In the short run, consumption depends on real disposable income, the saving ratio, and the rate of interest.

Using data from the Flow of Funds Accounts of the Federal Reserve Board and the National Income and Product Accounts (NIPA) of the Bureau of Economic Analysis, the authors outline a model of consumer behavior. A sensitivity analysis shows that the various determinants of consumption, listed in order of importance, are real disposable income, net wealth, consumer confidence, the real mortgage rate, and unemployment. Using two scenarios (a double-dip recession, and an economic recovery as a result of fiscal policy), Arestis and Karakitsos combine short- and long-term factors that shape consumption decisions; they then evaluate consumption over the next two years.

In the first scenario, factors such as the war in Iraq and the high price of oil would collapse consumer and business confidence and cause the economy to stumble. Real disposable income would decline; the recession would deepen as GDP fell by 2.5 percent; net wealth would fall to 425 percent of disposable income; and unemployment would rise to 7 percent. Real consumption would fall 1.7 percent within the year, before recovering in the second year. The combined results imply that a recession would last two years.

In the second scenario a huge fiscal package combined with a continuous accommodative monetary policy would cause a cyclical upturn, creating the impression that the recovery would be sustainable. The fiscal package would lift the annual real disposable income growth rate to 5 percent. The property market bubble would also continue to grow, leading to higher equity prices, which would lift net wealth to 550 percent of disposable income. Unemployment would fall to 5.5 percent and consumer confidence would rise. Real consumption would increase 2.1 percent in the first year and 3.8 percent in the second year. According to the authors' second scenario, fiscal and monetary policy would be capable of creating a cyclical upturn that could last for two years.

### **Reinventing Fiscal Policy**

PHILIP ARESTIS and MALCOLM SAWYER

Working Paper No. 381, May 2003

[www.levy.org/docs/wrkpap/papers/381.html](http://www.levy.org/docs/wrkpap/papers/381.html)

Over the past two decades, macroeconomic policy has focused on monetary policy (with interest rates as the key policy instrument) rather than fiscal policy. According to Institute Professor Philip Arestis and Senior Scholar Malcolm Sawyer of the University of Leeds, fiscal policy should be reinstated as a tool of macroeconomic policy. The authors disagree with economic theories, such as the "new consensus," that suggest that fiscal policy has a limited role to play in influencing aggregate demand.

The fiscal policy norm is to allow automatic stabilizers to operate in an environment of balanced budgets over the business cycle. The authors state that the incorporation of supply-side equilibrium in econometric models, combined with policy regimes that push economies toward supply-side equilibrium, leads to empirical conclusions that fiscal policy is ineffective, since any fiscal stimulus is quickly dissipated within the context of the models. They observe that fiscal policy is not accounted for in the new consensus model and that the model's proponents suggest using discretionary fiscal policy as the exception rather than the rule.

The authors expand the new consensus model by explicitly introducing fiscal policy into its equations, by way of consumer and investment demand, the income tax rate, and

government expenditures. The equilibrium rate of interest—there is no unique natural rate of interest—depends on government expenditures as well as on the parameters of consumption and investment functions. The authors note that, based on evidence from the United States and the United Kingdom during the 1990s, raising the propensity to consume and invest can cause these parameters to change substantially.

The four main factors cited by some economists to support their stance against discretionary fiscal policy and long-term budget deficits relate to “crowding out” and the Ricardian Equivalence Theorem (RET). The factors are: (1) The Central Bank raises interest rates following a fiscal expansion; (2) Higher aggregate demand caused by an increase in the deficit absorbs savings and reduces investment; (3) Aggregate demand adjusts to the supply-side equilibrium (e.g., the non-accelerating inflation rate of unemployment [NAIRU]); and (4) The RET assumes equivalence between debt and taxes (consumers are aware of the government’s intertemporal budget and the direction of future tax rates and adjust their saving accordingly), so permanent income and aggregate demand do not change and the fiscal multiplier is zero.

The authors believe that arguments based on the four factors are flawed. They assert that crowding out would not occur if expansionary fiscal policy raised interest rates; that, since saving responds to changes in government expenditures (e.g., expansionary fiscal policy raises income, investment and saving), domestic saving should be treated endogenously rather than exogenously; that it is not clear that the effectiveness of fiscal policy is short-lived and damaging in the long run; and that fiscal policy affects aggregate demand (it should not be assumed that a supply-side equilibrium must be attained).

The authors particularly object to the RET argument. They believe lower taxation could make people feel wealthier and spending could increase as a result. If the RET proposition held, then the size of the budget deficit would be irrelevant to the level of aggregate demand and there would be no need for fiscal policy. This is because a balanced budget would be compatible with full employment and, in a closed economy, saving and investment would be equal. If fiscal policy is approached in functional finance terms—as in instances where a budget deficit is created by the difference between private saving and investment at a desired income level, and the government, therefore, wishes to increase economic activity—

then saving cannot exceed investment. Also, under such circumstances, the budget deficit does not necessarily put upward pressure on the interest rate. The authors agree that the response to an increase in government expenditure that is not matched by a change in taxation would include a commensurate increase in saving, but they note that the increase in saving can come either from a change in the level of income (the Keynesian view) or a change in saving behavior (the RET view). They assert that fiscal policy, appropriately applied, does not lead to crowding out.

The authors outline other causes that may lead to ineffective fiscal policy. Their list of possible causes includes: (1) Model uncertainty and infrequent decisions can trigger inaccurate forecasts, which hamper decision making and create significant lags between policy decisions and implementation; (2) Fiscal policy is procyclical rather than countercyclical and is affected by inside lags (caused by policymakers and the political process) and outside lags (the time it takes fiscal measures to affect aggregate demand); and (3) Fiscal policy may entail a “deficit bias” from institutional factors (e.g., it may be politically unrealistic to increase taxes or decrease government expenditures during economic upswings). The authors note that fiscal policy is more subject to democratic decision making than is monetary policy.

The persistence of unemployment in market economies suggests a general lack of aggregate demand and a need for fiscal stimulus, say the authors. The tendency for saving to exceed investment also requires a budget deficit to counter any excess net private saving.

The authors note that there is, as yet, no empirical validation for the notion that supply-side inefficiencies are associated with tax-rate volatility—as when tax changes affect labor supply, saving, and investment—or that the inefficiencies have an impact on the mobility of international labor and capital. They also observe that some studies show that fiscal policy as a tool of demand management is used less frequently in developing countries, where the availability and cost of domestic and external finance is a major constraint. The authors’ analysis suggests that deficit bias may be relatively higher in developing countries.

Studies show that fiscal multipliers, while overwhelmingly positive, are small; long-term multipliers are smaller than short-term multipliers; fiscal policy during recession is



effective in closed economies but not in open economies with flexible exchange rates; and fiscal expansions are more effective when they are expenditure based, associated with big government and excess capacity, and accompanied by monetary expansion. There is little evidence of direct crowding out or crowding out through interest or exchange rates. The authors are encouraged by the empirical evidence of the effectiveness of fiscal policy.

### **The Case for Fiscal Policy**

PHILIP ARESTIS and MALCOLM SAWYER

Working Paper No. 382, May 2003

[www.levy.org/docs/wrkpap/papers/382.html](http://www.levy.org/docs/wrkpap/papers/382.html)

Many economists argue that fiscal policy does not raise the level of economic activity and, therefore, governments should operate with balanced budgets. John Maynard Keynes and Michal Kalecki reject this notion on the premise that balanced budgets are not generally compatible with high levels of aggregate demand, and the difference between full-employment saving and investment or a fall in full-employment saving can be accounted for by redistributing income from rich to poor. Institute Professor Philip Arestis and Senior Scholar Malcolm Sawyer of the University of Leeds agree with Keynes and Kalecki, particularly when fiscal policy is viewed in “functional finance” terms.

Functional finance is based on the proposition that budgets should be used to generate higher levels of economic activity and total spending should be adjusted to reduce unemployment and inflation. The authors note that private saving tends to exceed investment. Therefore, in the absence of trade surpluses, budget deficits are necessary and may be a quasi-permanent feature. This notion is supported by the fact that industrialized economies in the postwar period have had budget deficits in most years. The authors further note that the case for fiscal policy rests on the proposition that equality between ex ante savings and investment at full employment income cannot be assured.

The authors outline and dismiss three main arguments that fiscal policy is ineffective due to “crowding out” (see Working Paper No. 381). They note that the arguments do not take the functional finance view into account.

The first argument is that monetary policy does not accommodate fiscal policy and that investment and other forms of private expenditure are sensitive to the interest rate. According to the authors, in industrialized economies most money takes the form of credit money (bank deposits), so the stock of money is eventually determined by the demand for money and interest rates are not set by money’s supply and demand. Crowding out would be a function of the responses of the monetary authorities rather than the markets and, in the short run, of the discretionary actions of the central bank. However, a Keynesian central bank whose policies were coordinated with fiscal policy would not change the key interest rate.

The second argument is that higher aggregate demand caused by an increase in the deficit absorbs savings and reduces investment. The authors note that crowding out would occur only if supply-side equilibrium were attained (in order to ensure a constant rate of inflation) and the level of aggregate demand were equivalent to supply-side equilibrium. In the absence of automatic market forces or monetary policies that ensure aggregate demand is consistent with supply-side equilibrium, fiscal policy has a role to play. This is the case because supply-side equilibrium constrains economic activity.

Arestis and Sawyer observe that changes in real wages appear to function as adjustment mechanisms that affect the supply side of the economy. Wages and prices, on the other hand, change in response to demand and no mechanism guides real wages to their equilibrium level. The adjustment of the nonaccelerating inflation rate of unemployment (NAIRU) comes from the demand side. The authors also find that there are no mechanisms available for making the supply and demand sides of the economy compatible; the central bank’s interest rate policy is discretionary; and fiscal policy (of the functional finance type) boosts aggregate demand, stimulates investment, and raises the future productive capacity of the economy.

The third argument, which relates to the Ricardian Equivalence Theorem (RET) and relies on Say’s Law, is irrelevant in the context of functional finance, say the authors. The RET is derived in the context of full employment and under the assumption that private sector aggregate demand underpins the level of income and is invariant to the budget deficit position. According to the authors, there is no assurance that

a shift in the supply-side equilibrium will generate a corresponding shift in the level of private demand (estimates of NAIRU vary over time and across countries).

The functional finance approach recognizes that the expenditure/tax system can act as a (partial) automatic stabilizer—government expenditures rise and tax revenues fall when output slows, thereby limiting the extent of a slowdown in output. The operation of the automatic stabilizer also indicates that the budget deficit can be an endogenous response to changes in the demand side of the economy. The authors find that fiscal policy as an automatic stabilizer could (through the relationships among the budget deficit, current account, and net private savings) generate results that mimic those generated by the Ricardian equivalence approach.

The functional finance approach suggests that a government can run a perpetual and sustainable budget deficit of any size and that the debt-to-GDP ratio will eventually stabilize, provided the interest rate is less than the growth rate. An alternative approach suggests that the government accept an intertemporal budget constraint in which the present value of current government debt and future budget positions would sum to zero (future primary budget surpluses would

be needed to offset existing government debt). Governments would have to clear their debts, a premise based on a relationship in which the interest rate exceeds the growth rate.

In viewing the growth process, a number of economists posit higher rates of capital formation with faster productivity growth. This suggests that fiscal policy increases the growth rate of the economy even in the presence of intertemporal budget constraint. Tight monetary policy harms sustainability directly and indirectly. According to the authors, the size of the overall budget deficit (rather than the primary budget deficit) is appropriate in the context of functional finance because the impact of the deficit on aggregate demand and the ability of the deficit to counter excess saving is relevant.

Empirical evidence derived from various studies on the relationship between the posttax interest rate on government debt and the growth rate shows that the interest rate tends to fall below the growth rate and that the difference between the two is small. The excess of saving over investment can be lowered through the adoption of an appropriate tax structure, and fiscal policy can function, somewhat, as an automatic stabilizer in the face of demand shocks that arise from fluctuations in the saving and investment functions.

## Explorations in Theory and Empirical Analysis

### Minsky's Acceleration Channel and the Role of Money

GREG HANNSGEN

Working Paper No. 384, July 2003

[www.levy.org/docs/wrkpap/papers/384.html](http://www.levy.org/docs/wrkpap/papers/384.html)

Hyman Minsky's financial fragility hypothesis states that a growing economy becomes unstable over time, as companies and investors engage increasingly in risky investments, so an economy is unstable at full employment. His financial theory of the business cycle suggests that monetary factors could contribute to an economic cycle of boom and bust and be mitigated only through government intervention. Minsky's critics allege that his theory fails to account for the business cycle. It cannot account for cyclical phenomena, income growth may

keep debt-equity ratios from rising, and there is no inverse relationship between the quantity of investment and the rate of return.

Resident Research Associate Greg Hannsgen uses Minsky's financial fragility hypothesis and financial theory of the business cycle to formulate a model and study the effects of monetary policy, while, simultaneously, omitting those elements that Minsky's critics find objectionable. Because GDP depends on the pace of change in the interest rate, only the acceleration channel (interest rates change at an increasing rate over time) is capable of affecting output, says Hannsgen. The closest counterpart, in the mainstream literature, to Hannsgen's model is the balance-sheet channel posited by some new Keynesians. The model and empirical

evidence confirm Minsky's argument that an economy can be destabilized when agents with speculative and Ponzi positions (using borrowed money to make interest payments in addition to principal payments) face an environment of changing short-term interest rates caused by an activist antiinflationary monetary policy. It is possible to adhere to Minsky's theory of investment, says Hannsgen, even if one assumes that many of the critiques of his post-Keynesian antagonists are correct.

Hannsgen's paper represents an effort to establish a role for money, while satisfying the belief of some economists that the money supply is completely endogenous (the banking system is completely accommodative) and that the usual account of the channels through which monetary policy affects the economy is subject to fatal objections. In one interpretation of Minsky's model, changes in the interest rate are generated endogenously by the interaction of the demand and supply of money, and higher interest rates affect investment by raising the cost of financing the production of capital goods and by lowering the present discounted value of the income streams that result from the use of the capital goods. Minsky did not mean to argue that leverage and interest rates increase throughout an economic expansion, says the author.

Hannsgen notes that after the Fed-Treasury Accord of 1951 the Fed attempted to counter inflationary pressures during booms by tightening monetary policy. This policy regime caused interest rates to rise late in economic expansions, which eroded the financial strength of firms. The cycle of financial boom and bust is the product of a specific form of macroeconomic policy rather than a natural law, so it is possible to alleviate instability by changing the activities of the monetary authorities, says Hannsgen. Minsky's theory of investment is clearly meant as a critique of the Fed's strategy for fighting inflation and is consistent with the observation that interest rates are not procyclical in some economies.

Hannsgen pursues two strategies to address the critics of Minsky's model: (1) Make the interest rate a function of policy only, and (2) Avoid dubious assumptions about the dynamics of leverage ratios. He attempts to show that one can be a Minskian and simultaneously believe that the money supply is completely endogenous, the interest rate is policy determined, the Cambridge critiques are valid, and a boom can partially provide its own financing and avoid the perils of rising indebtedness by generating strong cash flows.

In Minsky's view rising (changing) interest rates, rather than high interest rates per se, harm the economy. Hannsgen notes that there is much psychological evidence that people are as concerned with changes in variables as with absolute levels (and investment depends upon the perceptions of executives and stockholders). He shows that the variables in the aggregate demand function capture three effects: (1) The expectations and animal spirits of entrepreneurs are influenced by sales and capital utilization in the previous period; (2) Lagged output affects the cash flow of the firm; and (3) Consumption is partly driven by past income. These effects tend to cause a persistence of boom or bust conditions. Hannsgen incorporates these effects into his model, using a central bank reaction function (the central bank increases interest rates proportionately as inflation rises) to determine if these effects can offset the acceleration effect, as claimed by Minsky's critics. Rising interest rates in a boom would be a result of a policy response by the central bank.

Few studies consider the impact of the pace of change in interest rates, and the business cycle component of cash flow variations is often deemphasized. Hannsgen uses a vector autoregression (VAR) analysis (which assumes, conservatively, that all variables are endogenous) to construct impulse-response functions (the reaction of a variable to a random shock in another variable) and variance decompositions (the percentage of variability in one variable due to random variation in another variable). He uses such data as the federal funds rate, the pace of growth of the federal funds rate, industrial production, the consumer price index, and the M1 money supply for the period from April 1960 to June 2002. His analysis shows that the pace of change of the interest rate influences the level of output in a relationship that resembles the aggregate demand function. The results justify the claim that corporate balance sheets, under some circumstances, deteriorate during an economic boom, even as cash flow rises.

The findings suggest that a regime of interest rate targeting provides the greatest stability and that expansionary monetary policies are unsustainable over the long term. The downward trend of interest rates must accelerate in order for output (and inflation) to rise. Hannsgen proposes institutional reforms to the banking systems, aimed at reducing the mismatch between the maturities of assets and liabilities (related to the speculative and Ponzi financing implicated in Minsky's

theory), which can make the economy vulnerable to increases in short-term interest rates.

The paper illustrates the dangers associated with setting monetary policy according to its dubious connections with economic outcomes. Future research recommendations by the

author are to factor, explicitly, the level of debt into the investment model, as it clearly interacts with the effects of changing interest rates, and to explore the asymmetry of changing interest rates (i.e., the effects of falling interest rates may not counterbalance equally the adverse impact of rising interest rates).

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