Summary

Fall 1998

Volume 7, Number 4

CONTENTS

Letter from the Executive Director

Institute Research

Program: Employment Policy and Labor Market Structure Summaries of New Working Papers

- Speed of Technical Progress and Length of the Average Interjob Period
- The Place of Cultural Explanations and Historical Specificity in Discussions of Modes of Incorporation and Segmented Assimilation
- State Type and Congressional Voting on the Minimum Wage
- "Inability to Be Self-reliant" as an Indicator of U.S. Poverty: Measurement, Comparisons, and Implications

Symposium

■ Is There a Shortage of Information Technology Workers?

Program: Restructuring in the Financial Services Sector Summaries of New Working Papers

- Yes, 'It' Did Happen Again--A Minsky Crisis Happened in Asia
- Can Taxes and Bonds Finance Government Spending?
- Derivatives and Global Capital Flows: Applications to Asia

Seminar

■ The Wall Street Bubble: Threat to Prosperity and Fed Dilemma

Program: Federal Budget Policy Summary of New Working Paper

 Optimal Financing by Money and Taxes of Productive and Unproductive Government Spending: Effects on Economic Growth, Inflation, and Welfare

Program: International Trade and Competitiveness Seminar

■ Long-Term Determinants of Real Exchange Rates: The Case of Japan and the United States

Special Projects

Summaries of New Working Papers

- The Macroeconomics of Industrial Strategy
- An Ethical Framework for Cost-Effective Medicine: Confronting the

Risks in Managed Care

■ Reciprocity and the Guaranteed Income

Seminar

■ In Defense of Small Samples

Institute News

New Members of the Research Staff
Congressional Policy Briefing
Conferences
Presentations and Publications by Levy Institute Scholars



The Jerome Levy Economics Institute of Bard College, founded in 1986, is a nonprofit, nonpartisan, independently funded research organization devoted to public service. Through scholarship and economic forecasting it generates viable, effective public policy responses to important economic problems that profoundly affect the quality of life in the United States and abroad.

S Jay Levy, *Chairman* Dimitri B. Papadimitriou, *Executive Director*

The *Summary* is a quarterly publication of The Jerome Levy Economics Institute of Bard College intended to keep the academic community informed about the Levy Institute's research. To accomplish this goal, it contains summaries of recent research publications and reports on other activities.

Editor: Karl Widerquist Text Editor: Judith Kahn

Letter from the Executive Director

To our readers:

This issue of the Summary includes activities in all four research programs and special projects. Activities in Employment Policy and Labor Market Structure include the Levy Institute's May symposium on labor supply in the informational technology industry. In papers in this area Research Associates William J. Baumol and Edward N. Wolff, both of New York University, find a relationship between accelerating technological change and increased duration of unemployment. Senior Scholar Joel Perlmann discusses cultural, structural, and contextual explanations of segmented assimilation among the children of immigrants. Resident Scholar Oren M. Levin-Waldman examines the relationship between a state's union density and its congressional representatives' voting pattern on the minimum wage. Research Associate Robert Haveman and Andrew Bershadker, both of the University of Wisconsin-Madison, introduce a new measure of poverty based on individuals' ability to be self-reliant.

Research in Restructuring in the Financial Services Sector includes three papers and a seminar. Cambridge University Visiting Scholar Stephanie Bell demonstrates that all government spending is financed by money creation. In two papers Visiting Senior Scholar Jan Kregel examines the causes of the Asian financial crisis. Vice Chairman and Director of Forecasting David A. Levy conducted a seminar on the outlook for the stock market and future growth of the economy.

In Federal Budget Policy, Research Associate David A. Aschauer discusses the financing of productive and unproductive government spending by taxation and money creation. In the program on International Trade

and Competitiveness Anwar Shaikh, of New School University, and Rania Antonopoulos, of New York University, led a seminar on the long-term determinants of real exchange rates.

Three papers and a seminar are summarized under Special Projects. Visiting Senior Scholars Philip Arestis, of the University of London, and Malcolm Sawyer, of the University of Leeds, examine the interaction between macroeconomic policy and industrial strategy. Senior Fellow Walter M. Cadette discusses ethical conflicts between cost effectiveness and adequate health care in the managed care industry. Research Associate Karl Widerquist addresses the ethics of an unconditional guaranteed income. Benjamin Lipstein, of Baruch College and the Stern School of Business at New York University, gave a seminar on the advantages of small sample sizes in surveys.

We welcome two new members to our research staff, Jamee Moudud and Ajit Zacharias.

As always, I invite your comments on the Summary.

Dimitri B. Papadimitriou Executive Director

Back to Contents

Institute Research

Program: Employment Policy and Labor Market Structure

Summaries of New Working Papers

Speed of Technical Progress and Length of the Average Interjob Period William J. Baumol and Edward N. Wolff Working Paper No. 237, May 1998

The average unemployment rate, adjusted for business cycle fluctuations, has slowly but steadily increased since the Second World War. The low 4.3 percent unemployment rate reported earlier this year was still twice as high as the rate was in peak business cycle years in the 1950s, when unemployment was often as low as 2 to 3 percent. Along with the increase in the level of unemployment there has been a persistent increase in the average length of time during which an unemployed worker is "between jobs." In the United States between 1948 and 1993 the average duration of unemployment more than doubled and the portion of the unemployed defined as long-term unemployed quadrupled. Why have the unemployment rate and the duration of unemployment increased steadily over the last half century?

Research Associates William J. Baumol and Edward N. Wolff, both of New York University, find that technological change has serious side effects in the labor market. As the pace of technological change increases, firms need to retool their factories more often and so have to lay off employees more often, thus increasing the level of unemployment. Firms also need to retrain workers or hire new workers with different skills more often; this means longer periods of unemployment or perhaps permanent unemployment for those who are most costly to retrain, such as older and less-educated workers. These kinds of changes mean that the increase in the level and duration of unemployment will not simply be cyclical or temporary, but will be permanent throughout the business cycle.

Baumol and Wolff use data from the March Current Population Survey for the years 1950 to 1995 to sort out the effects of technological, institutional, and demographic variables on changes in unemployment. They define five proxy variables to measure technological activity: total factor productivity growth, ratio of research and development expenditure to GDP, portion of employees who are research and development scientists and engineers, investment in new machinery per full-time equivalent employee, and investment in office, computing, and accounting equipment per full-time equivalent employee. The institutional factors are the presence of unions, the minimum wage, and aspects of unemployment insurance (coverage, replacement rate, and receipt of benefits). The demographic factors are gender, age, and racial composition. Baumol and Wolff found that total factor productivity and investment in office, computer, and accounting equipment were both closely associated with an increase in the average duration of unemployment. Their results for all variables reinforce the significance of the technology variables.

Baumol and Wolff review briefly some of the many serious social consequences of unemployment, such as divorce, criminal activity, mental illness, and suicide, that must be added to the forgone output to calculate the true economic costs of unemployment. They point out that it is reasonable to assume that these consequences intensify the longer a worker is unemployed.

Baumol and Wolff recommend several government actions to reduce the length of joblessness and to lessen the social costs of lengthy joblessness: (1) Increase the period of eligibility for unemployment insurance benefits to 39 weeks or a year. Although the average duration of unemployment has more than doubled since the late 1940s, unemployment insurance benefits still expire after 26 weeks. Increase the unemployment benefits replacement rate; the rate today is the same as it was in 1970. (2) Increase government training efforts with emphasis on targeting job retraining programs at emerging technologies so that unemployed workers can prepare themselves to meet the changing needs of employers. (3) Do research into the best way to improve the educational achievement of those most at risk for protracted or permanent joblessness (older workers and young, less-educated workers) but, until there are new findings, pursue training for these groups based on current promising teaching approaches.

Back to Contents

The Place of Cultural Explanations and Historical Specificity in Discussions of Modes of Incorporation and Segmented Assimilation

Joel Perlmann Working Paper No. 240, July 1998

There has been controversy over whether to attribute differences in the economic performance of ethnic groups in the United States to cultural or to structural explanations. Much early work on ethnicity ascribed differences in economic success to attitudes, such as a strong work ethic, that are fostered by some cultures but not others. Proponents of the structural approach pointed out that the attitudes of ethnic groups are often the result of the discrimination they face or the social class and occupation of its members. Empirically accounting for structural characteristics of individuals has left a significant portion of the ethnic differences unexplained, but simply attributing the unexplained residual to culture is not sound. Portes and Rumbaut, in their 1996 book *Immigrant America*, attributed the unexplained ethnic residual to what they called modes of incorporation, postulating that the ethnic context in which an individual is raised affects his attitudes and chances for success. An individual who is part of an ethnic group with a high portion of professionals will develop different attitudes from an individual who is part of a community of immigrant laborers, even if the class positions of the individuals are taken into account. Thus, the ethnic residual can be attributed just as well to context as to culture.

Senior Scholar Joel Perlmann evaluates the modes of incorporation approach. A crucial factor in this explanation is the social class of immigrants before they arrive in the United States. The existence of a large portion of individuals of the same social class in an immigrant group constitutes a cultural context. One difficulty with the modes of incorporation perspective is that it blurs the line between cultural and structural explanations. Cultural attitudes may emerge from a given mode of incorporation. Although in Portes and

Rumbaut's view the cultural attitudes are a by-product of the structural realities of the mode of incorporation rather than basic cultural differences, their approach opens the door to stressing this sort of cultural difference. The question then becomes which sorts of cultural differences arise from the modes of incorporation and which do not.

According to Perlmann, historically specific cultural factors, such as the Protestant work ethic or what has been called "Jewish Puritanism"--the kinds of cultural explanations criticized in *Immigrant America* --could be combined with the modes of incorporation into a more comprehensive theory, but not without complicating the methodology. Portes and Rumbaut lay out how the modes of incorporation could be used as a plausible explanation for ethnic differences in economic success, but they do not offer an assessment of how well the modes explain these differences relative to cultural and other possible explanations.

Perlmann discusses empirical techniques that might be used to separate contextual and cultural explanations of the ethnic residual. For example, one could study whether individuals living outside an ethnic enclave earn more or less than individuals living inside and whether this difference is large enough to explain the ethnic residual.

According to Perlmann, modes of incorporation influence the development of the second generation in ways that are different from the ways their immigrant parents are influenced. Some effects of context have been transferred to the parents' social class, occupations, education, and income. How much of the effects of context has been folded into the measures of parents' socioeconomic status and how much continues, or increases, as a distinctive influence upon the second generation?

Many authors are concerned that modes of incorporation will lead to segmented assimilation, or the assimilation of immigrant children into the inner-city oppositional subculture rather than into mainstream American culture. Indeed, in a world of unappealing jobs and "missing rungs on the mobility ladder," the children of immigrants may be responsive to a dysfunctional subculture that emerges from inner-city joblessness. But, Perlmann criticizes Portes and Rumbaut for assuming that being nonwhite is enough to link the diverse minority groups into a dysfunctional subculture. This does not explain why the economically disadvantaged members of some groups, such as Asians and whites, are so much less likely to fall into this pattern than others. Thus, although the modes of incorporation approach is an important contribution, there is still work that needs to be done to explain the ethnic residual.

Back to Contents

State Type and Congressional Voting on the Minimum Wage

Oren M. Levin-Waldman Working Paper No. 243, July 1998

The minimum wage is an economic policy issue, but it is above all a political issue. Unlike entitlement programs, the minimum wage is not indexed to inflation; instead it requires an act of Congress to raise it, even if only to adjust it for inflation. Conventional wisdom assumes that members of Congress vote their party's ideology on the minimum wage, but Resident Scholar Oren M. Levin-Waldman finds that this is not the case. Union strength in a member's state appears to be a more important determinant of how he or she will vote on minimum wage increases.

Levin-Waldman examines the pattern of congressional voting on the minimum wage from 1949 to 1996. He divides states into three types: "right-to-work" states, which have laws prohibiting union shop clauses and, with one exception, have low union densities; "middle" states, with union densities below 15 percent but no right-to-work laws; and "high union density" states, with union densities over 15 percent. He performed a logistic regression analysis with variables for party affiliation, right-to-work, and high union density. He found that the tendency among members of Congress from right-to-work states was to vote against increases in the minimum wage regardless of party affiliation; Democrats from right-to-work states were more likely to vote against than to vote for minimum wage increases, contradicting the expectation that Democrats tend to vote for

increases. The tendency among members of Congress from high union density states was to vote favorably; the influence of party affiliation was not statistically significant.

Levin-Waldman performed a chi-square analysis on the same data and found that the probability that a member of Congress would vote for an increase in the minimum wage was 73.2 percent in the House of Representatives and 63.6 percent in the Senate. The probabilities rose to 75.2 and 76.0 percent, respectively, among those from high union density states. The probability that a Republican member of the House from a high union density state would vote in favor of an increase was 76.7 percent, contradicting the notion that Republicans tend to vote against increases in the minimum wage.

Levin-Waldman also performed a longitudinal logistic regression to see if the influence of union density on congressional voting has diminished as union strength has decreased over the past 40 years. He found that the significance of union density diminished in the 1980s, just as unions saw their greatest decline in strength.

Levin-Waldman concludes that the influence of parties is largely irrelevant in voting on minimum wage increases and that state type is the major factor. As a result of the decline of unions' strength, working Americans have lost an important tool to influence public policy.

Back to Contents

"Inability to Be Self-reliant" as an Indicator of U.S. Poverty: Measurement, Comparisons, and Implications

Robert Haveman and Andrew Bershadker Working Paper No. 247, August 1998

The official poverty measure compares a family's actual income to the level of income estimated to be needed for a family of that size to attain a given level of consumption, known as the poverty line. Robert Haveman and Andrew Bershadker, both of the University of Wisconsin-Madison, have developed a new measure of poverty that compares an estimate of a family's potential earnings (the amount they would earn if all adults work full-time, full-year, given the market value of their skills) to the poverty line.

According to Haveman and Bershadker, this new measure has two primary advantages: It relies on a family's permanent capabilities rather than on its income at any one time and so is less apt to be vulnerable to cyclical fluctuations, and it is consistent with the trend in poverty policy toward emphasizing self-reliance. If the goal of policy is to make people more self-reliant, it makes sense to have a measure of their ability to be self-reliant.

Haveman and Bershadker use data from the March Current Population Survey for 1976 to 1996. They first calculate a family's gross earnings capacity (GEC), the earnings the family could generate if all working-age adults (18 to 65) worked full-time, full-year using their human capital at the going rate. To obtain the family's net earnings capacity (NEC), the gross earnings capacity is adjusted for the cost of child care; characteristics that make full employment less likely, such as sickness and disability; and the steady state probability of being unemployed. The NEC is then compared to the official poverty line to determine whether the family has the potential to generate income above poverty. Because individuals with the same characteristics are assigned the same earnings capacity, the measure does not incorporate the effect of luck and unobservable human capital. Also omitted are the effect of the business cycle on wages and the effect on wages and unemployment that would arise if all working-age adults were to seek full-time, full-year employment.

Poverty indicated by this measured "inability to be self-reliant" has increased faster than official poverty based on income. Between 1975 and 1995 self-reliance poverty increased by over 9.8 million people, or from about 6 percent to more than 10 percent of the total population. The official poverty rate in this period fluctuated between 10 and 14 percent, with a less clear trend. Haveman and Bershadker note that the largest increases in self-reliance poverty have been among the groups with the lowest poverty rates, such as whites and people with some college education, and the lowest increases have been among groups with the highest poverty rates, such as women, nonwhites, and single mothers. However, these trends have not been large enough to change the

composition of the poor population. Over 56 percent of those in self-reliance poverty are nonwhite, over 62 percent are single mothers, and nearly 80 percent have only a high school education or less.

According to Haveman and Bershadker, the trends in self-reliance poverty are largely accounted for by the relative increase in female wages and decrease in male wages and the absolute fall in wages of those with little education and few skills. A drop in wages has a larger effect on self-reliance poverty than on official poverty because it affects not only the wages of workers but also the potential earnings of nonworkers with similar characteristics.

Haveman and Bershadker conclude that the substantial increase in self-reliance poverty brings new urgency to policy initiatives aimed at increasing the ability of individuals to become more self-reliant. One possibility is to increase the level of education, training, and skills of those with the least earnings capacity. Another more controversial approach would be to attempt to increase the returns to work for those with the least human capital. Such policies including raising the minimum wage and subsidizing the income of low-wage workers.

Back to Contents

Symposium

Is There a Shortage of Information Technology Workers?

On June 12, the Levy Institute hosted a symposium to examine the claim by information technology companies that they are facing a shortage of qualified workers and to consider policy approaches to meeting current and future demands for qualified labor. Participants in session 1, "How Do We Define and Count Technology Workers and Technology Occupations?" were **John Sargent**, senior technology policy analyst of the Technology Administration of the U.S. Department of Commerce, and **Carlotta Cooke Joyner**, director of Education and Employment Issues in the Health, Education, and Human Services Division of the U.S. General Accounting Office.

Sargent defined an information technology (IT) worker as someone who works in the study, design, development, or implementation of computer-based technology. This definition includes many workers in the automobile, aircraft, and other industries that are not usually thought of as IT industries. IT is extremely important to the economy because technological advances are responsible for nearly half of economic growth and IT is responsible for a large portion of technological advances. According to Sargent, employee groups view the employers' problem of unfilled jobs as due not so much to a shortage of IT workers but to employers' unwillingness to retrain mid-career employees and their inability to connect with potential employees.

Joyner said there is no conclusive evidence of a shortage. IT employment, measured by occupation and industry, has doubled in the past 10 years, but an increase in employment itself does not necessarily mean there is a shortage. It is difficult to know just how many IT workers and job openings there are. Surveying is difficult; one study had only a 14 percent response rate. Joyner admitted that the call for more study is a classic GAO conclusion, but insisted that we need more information about how many job vacancies there are and in what categories of jobs before we can draw any policy conclusions.

Participants in session 2, "Estimates of the Current Stock and Future Demand for and Supply of Technology Workers," were **Lauren Brownstein**, manager of the Workforce Education Program, Information Technology Association of America; **Robert I. Lerman**, director of the Human Resources Policy Center of the Urban Institute and professor of economics at American University; and **John H. Bishop**, chair of the Department of Human Resources Studies at the New York State School of Industrial and Labor Relations, Cornell University.

Brownstein spoke for her employer, the Information Technology Association of America (ITAA), a trade association of companies in the IT industry. She cited the IT industry's fast growth, high vacancy rate, and increasing pay as evidence that there is a shortage of IT workers. She suggested ways IT companies might broaden the talent pool, including recruitment of minorities and woman and partnerships with educational institutions to train potential workers. She also suggested public policy responses, such as regional skills

alliances, taxes incentives for firms that invest in worker retraining, and an increase in the cap on the H-1B visa program, which permits a certain number of immigrants with specialized skills to enter the country each year.

Lerman suggested that the market for IT workers is tight, but the labor market in general is tight. Salaries have been rising for IT workers but also for skilled workers in general. Part of the reason for a high job vacancy rate may be IT employers' demands for long hours from employees and their offering of risky compensation packages, such as bonuses and profit sharing, instead of simply paying higher salaries. Companies can choose these employment practices if they want, but they should not expect government to consider it a public policy problem if workers are unwilling to accept them.

Bishop agreed that the market for high-skilled labor is tight across the board, but cautioned against structuring the educational system toward specific needs of today's labor market or projections of future needs. The market is likely to change more rapidly than policy can be changed. Bishop illustrated the difficulty of projecting the future needs of the labor market by citing past Bureau of Labor Statistics (BLS) projections. In the mid 1980s the BLS greatly underestimated the number of IT workers that would be needed by the mid 1990s, but it greatly overestimated the number of electrical engineers that would be needed. He said that the question for a long-term policy should not be is there a shortage now, but do we want to have more high-skilled people in the country over the long-run. He suggested replacing the H-1B quota with a salary requirement for admission, letting in as many immigrants as can find jobs with a salary of over, say, \$50,000.

Session 3 was entitled "Short- and Long-Term Directions for Policy." Participants were **Robert D. Atkinson**, director of the Technology, Innovation, and New Economy Project, Progressive Policy Institute; **Daniel T. Griswold**, associate director of the Center for Trade Policy Studies, Cato Institute; and **George M. Fishman**, chief counsel to the Subcommittee on Immigration and Claims of the Committee of the Judiciary, U.S. House of Representatives. Atkinson said that since the IT sector is still in the early stages of revolutionizing the economy, we can expect the demand for IT workers to continue to grow. One cannot increase the number of IT workers simply by offering higher wages because not everyone is qualified to be trained for IT jobs. Workers must have a high level of basic skills before they can be trained, so meeting the demand requires a long-term solution of improving basic education. For the shorter term he suggested raising the H-1B visa quota. He also advocated regional skills alliances involving educational institutions, IT firms, and government participation.

Griswold asserted that the shortage is real and should be taken seriously. He blamed the shortage mostly on the government's cap on H-1B visas, which was set years ago at the arbitrary figure of 65,000 people per year. To argue that immigrants with special skills are a benefit to all Americans, he cited the statistics that the average immigrant creates a net positive value of \$80,000 over his or her lifetime, but the average high-skilled immigrant creates \$190,000. He suggested doing away with the cap on H-1B visas all together.

Fishman was more skeptical about the existence of a shortage and the need for increasing or eliminating the H-1B visa cap. He stated that there is evidence that the H-1B program has been used to displace American workers with immigrants who will work for lower wages. Most H-1B visa immigrants make \$25,000 to \$50,000 dollars per year, which is toward the low end of the wage range for the IT industry. He stated that hiring foreign workers is a privilege, not a right, and employers should be made subject to restrictions to protect American workers to earn that privilege. They should be required to search for an American worker before hiring an immigrant and should not be allowed to lay off an American in order to hire an immigrant.

A more extensive summary of the sessions is published in the symposium proceedings. Proceedings will soon be available in print and online.

Back to Contents

Program: Restructuring in the Financial Services Sector

Summaries of New Working Papers

Yes, 'It' Did Happen Again--A Minsky Crisis Happened in Asia

Jan A. Kregel

Working Paper No. 234, April 1998

The title of Visiting Senior Scholar Jan A. Kregel's working paper is a reference to Hyman P. Minsky's book *Can "It" Happen Again?* The Minskian "it" is the debt deflation scenario that led to the Great Depression. Kregel makes the case that the recent Asian crisis is such a scenario.

Minsky defined three types of financing. Hedge financing is a position in which a firm's expected cash flow always exceeds the financing costs and operating expenses by a wide margin of safety. Speculative financing is a position in which a firm has a positive net present value, but the expected cash flow will not be sufficient to meet all financial commitments in all periods. Ponzi financing is a position in which a firm has to borrow funds just to meet its current cash flow commitments. According to Minsky, a change in macroeconomic variables, such as the interest rate, can change a firm's financial position from hedge to speculative or even to Ponzi by reducing the present value of the firm's current cash flow and increasing its cash flow commitments. A bank will respond to a deterioration of the financial position of its debtors by reducing lending and attempting to recall lending. If so, firms will find themselves in Ponzi positions and will be forced to sell assets just to meet their current cash flow commitments. Selling assets creates a generalized downward pressure on output and asset prices. Thus, the term "debt deflation."

According to Kregel, the above scenario could also result from a depreciation in the exchange rate if firms have a high proportion of imported inputs or foreign debt, and this is precisely what happened in Asia in 1997. Speculation that interest rates would rise in Japan reversed the flow of funds that had been going from Japan into the newly industrialized Asian nations, depressing the value of the newly industrialized nations' currencies. These governments responded by increasing interest rates, hoping to stabilize their currencies, but the increase in interest rates caused a deterioration in the financial positions of firms. Governments then devalued the currencies, hoping to make a preemptive strike on speculators who would be selling Asian currencies short, but this only pushed firms further into Ponzi positions.

According to Kregel, the crisis could have been avoided by a debt workout (in which debt payments are rescheduled), but workouts are no longer possible. Once firms reach Ponzi financial positions, they have negative net present values, and no rescheduling can resolve the problem. The International Monetary Fund (IMF) stepped in with conditional loans for Asian countries. These conditions forced nations to control domestic demand through a reduction in government expenditure in hopes of preventing inflation from causing a further depreciation of the currency. But, in a debt deflation crisis this policy only weakens domestic demand and worsens the cash flow of domestic firms.

The IMF's failure to recognize that the Asian crisis was a debt deflation caused it to prescribe conditions that will prolong the crisis and increase the costs in terms of bankruptcy and unemployment. The crisis is not yet over. Firms have temporarily had their debt rolled over, but unless the exchange rate returns to more normal levels, they will not be able to afford to buy the dollars to repay their loans and they will be forced to cease operations.

Back to Contents

Can Taxes and Bonds Finance Government Spending?

Stephanie Bell

Working Paper No. 244, July 1998

It is commonly believed that government spending is financed by one or a combination of three methods: taxes, bond sales, and money creation. Cambridge University Visiting Scholar Stephanie Bell uses reserve accounting to argue that money collected from taxation and bond sales is technically incapable of financing government spending because it is destroyed in the collection process, and, therefore, all spending is actually financed by

money creation.

From a detailed accounting of the effects of actions by the Treasury and the Federal Reserve on bank reserves, Bell makes five observations relevant to the question of whether government must tax or borrow to finance spending. First, the payment of taxes and the purchase of bonds by the private sector cause a systemwide decrease in bank reserves as the proceeds are placed into the Treasury's account at the Federal Reserve. Second, government spending causes a systemwide increase in bank reserves. Third, changes in the total level of bank reserves cause changes in the federal funds rate and other short-term interest rates. Fourth, the Treasury manages its closing balance in reserve accounts by coordinating spending, taxation, and bond sales. Fifth, the Treasury could manufacture all of its spending balances by selling bonds directly to the Federal Reserve.

According to Bell, the process of taxation and expenditure must begin with the government's creating and spending new government money. It cannot begin with taxation, because in order to pay taxes, individuals must first have government money, which reaches private hands only through government expenditure. Taxes can be viewed as a means of creating demand for the government's money and bonds can be viewed as a tool that prevents deficit spending from flooding the banking system with excess reserves. Neither taxes nor bond sales, therefore, need to be viewed as a financing operation.

Bell offers another, more powerful argument that taxation and bond sales are not financing operations. Federal Reserve notes are booked as liabilities on the Fed's balance sheet and these liabilities are extinguished when they are offered in payment to the state. Thus, in the same way that an individual destroys a liability when he or she repays a debt, the government destroys a liability when it accepts its currency for the payment of taxes or the purchase of bonds. High-powered money, which is a government liability, is destroyed when the funds are placed into the Treasury's account at the Fed, and it is created when the government writes a check on its account at the Fed.

Therefore, government finances all of its spending through the direct creation of new money. If the government chose to ignore the reserve effects of its action, it could spend without regard to the size and timing of tax receipts. This would flush the banking system with excess reserves and overnight lending rates would fall toward zero, which would force the government to sell bonds or increase taxes to attain a positive rate of interest. Thus, Bell concludes, bond sales and taxation are coordinated with government spending not to finance that spending but to mitigate the disturbance of banks' reserve positions caused by that spending.

Back to Contents

Derivatives and Global Capital Flows: Applications to Asia

Jan A. Kregel Working Paper No. 246, August 1998

According to Visiting Senior Scholar Jan A. Kregel, four factors in the current financial crisis in Asia have surprised observers. First, although capital flows in Asia appeared stable, the crisis was precipitated by the reversal of the very large proportion of short-term lending. Second, although Asia appeared to be an example of the maxim that capital flows to the region with the highest rates of return, now it appears that risk-adjusted returns were lower in Asia than in other regions. Third, although the foreign lending banks are the most sophisticated operators in global finance, they seem to have had difficulty assessing risk. Fourth, contrary to the belief that foreign equity investors will not liquidate their positions in response to currency devaluation, the equity and foreign exchange markets collapsed together. According to Kregel, these four factors may be explained by the role of derivatives contracts in the flow of funds to Asia.

Derivatives allow banks to become intermediaries in the investment process by matching borrowers and lenders and generating income from fees and commissions without taking on any risk or earning any interest income themselves. This changes the incentive of a bank from seeking the lowest cost funds and lending them for the highest risk-adjusted return to maximizing fees and commissions by maximizing the amount of funds

intermediated. Risk assessment is increasingly the responsibility of the lender, but derivatives packages mask risk and make it difficult for the lender to make that assessment.

One function of derivatives, according to Kregel, is to allow institutional investors to overcome restrictions against investing in emerging markets. Banks do this by writing dollar-denominated contracts for which the return depends on a foreign asset. This return is accompanied by a foreign exchange risk borne entirely by the lender. Other instruments, such as Brady bonds and equity swaps, served similar functions. Most of these instruments were set up with the expectation of stable exchange rates, but this expectation began to fall apart in mid 1997. The natural reaction of a U.S. holder of a total return swap to the possibility of an imminent counterparty default would be to hedge its currency exposure and unwind its commitment, that is, to sell the asset in the foreign market and repatriate the proceeds at the best possible exchange rate, which would create downward pressure on both the asset and exchange markets.

Kregel thinks that not all of the crisis can be explained by derivatives, but their existence contradicts the belief that private markets are always efficient in capital allocation and risk assessment. These financial innovations and free capital movements have instead provided a means by which financial intermediaries can increase their profits by increasing the risk borne by their counterparties.

Back to Contents

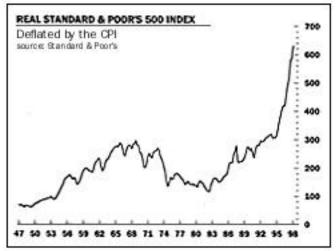
Seminar

The Wall Street Bubble: Threat to Prosperity and Fed Dilemma David A. Levy

Vice Chairman and Director of Forecasting David A. Levy conducted a seminar on June 3 on the outlook for the stock market and the economy as a whole. He expects an abrupt slowdown in economic growth with a 30 percent chance of recession by the end of 1998 and a 50 percent chance of recession by mid 1999. The wild card in the equation is the stock market bubble, which could burst at any time or continue to grow. (The thrust of Levy's argument as reported here remains in place; for an update see *The Levy Institute Forecast*.)

Levy's methodology is based on a macroeconomic profits equation that was first derived and applied over 80 years ago. This year, in contrast to 1997, most of the major influences on profits will be negative. During the 1990s consumers have been saving less and spending more, but if they decide to increase their saving, profits will suffer an additional blow.

In recent years the stock market has produced the largest gains in the postwar period (see chart), with an enormous effect on consumer spending. People feel wealthier because the value of their stock market



portfolios and pension funds has increased. There have been other positive effects. For example, firms find it easy to obtain financing for investment, and government has a windfall in unexpected capital gains tax revenue, which largely explains the new federal surplus. On the down side, the stock market is overvalued and vulnerable. A major decline in stock prices would have a serious detrimental effect on household net worth and therefore on consumption.

Levy defined a bubble as an asset market in which prices are so high that they cannot be justified by the income or services the assets can generate. People buy on the basis of the "greater fool theory," that is, they buy an asset without regard to the income it can generate on the assumption that someone else will pay a higher price for

it in the future. Examples of bubble markets are the Japanese stock market in the late 1980s and the gold market in the late 1970s. The current stock market has several characteristics of a bubble. First, the value of

stocks relative to earnings is at a record level. Second, the amount of stock being financed by debt is at a high level. Third, "the greater fool theory" is alive and well and has a new version for the 1990s: the stock market keeps rising because the baby boomers have to put their savings somewhere.

The stock market bubble and the possibility of a recession make these dangerous times for the Federal Reserve Board. Levy predicted that the Fed would leave interest rates unchanged in the immediate future, but would reduce them later in 1998 and during 1999.

A serious downturn in the stock market could make the economy's prospects much worse. While Levy acknowledged the difficulties in predicting the exact time and direction of changes in the stock market, he indicated that the probability of a serious downturn is high.

Back to Contents

Program: Federal Budget Policy

Summary of New Working Paper

Optimal Financing by Money and Taxes of Productive and Unproductive Government Spending: Effects on Economic Growth, Inflation, and Welfare

David Alan Aschauer

Working Paper No. 241, July 1998

Research Associate David Alan Aschauer, of Bates College, investigates the effects of different means of financing government expenditure. He defines two types of government spending: productive and unproductive. "Productive" expenditure is spending that increases the private sector's productivity. "Unproductive" expenditure does not mean bad spending; it simply means spending that does not directly increase the output of private sector goods and services. Aschauer examines two possible methods of financing: money creation and proportional income taxation.

Aschauer uses an endogenous growth model in which money is superneutral and there is an infinitely lived representative agent who maximizes utility subject to a cash-in-advance constraint. Investment is financed by credit and the production function exhibits constant returns to scale. Equilibrium is found by maximizing utility subject to the cash-in-advance constraint, market clearing conditions, and a balanced growth condition.

Aschauer finds that optimal public finance requires productive government spending to be financed by money creation and unproductive government spending by income taxation. The reason for this is that government spending, whether productive or unproductive, involves an externality that in the case of unproductive spending needs to be internalized by the use of taxes. Aschauer finds that the choice between tax and money financing is in fact a choice between current and future consumption because economic growth is unambiguously higher under money financing and initial consumption is higher under tax financing. Thus, productive expenditure, which stimulates growth, can be financed at the utility-maximizing level by money creation but not by taxation.

Back to Contents

Program: International Trade and Competitiveness

Seminar

Long-Term Determinants of Real Exchange Rates: The Case of Japan and the United States

Anwar Shaikh and Rania Antonopoulos

Anwar Shaikh, of New School University, and Rania Antonopoulos, of New York University, discussed the determinants of real exchange rates at the Levy Institute on June 18. The determinants are important because policymakers want to know what real exchange rates are sustainable and economists want to know why theories of exchange rates do not hold empirically. The prevailing theory of exchange rates states that they will adjust to make each nation equally competitive so that the real exchange rate is constant over time and trade is balanced. Empirical evidence shows that trade does not balance and real exchange rates are not constant in the long run. Some economists have attempted to use short-run models to explain the divergence from the theory, but Shaikh makes the case that the fundamental theory is wrong. He believes that real exchange rates depend on the real costs in each country and real costs determine whether each country will have a surplus or a deficit.

According to Shaikh, standard trade theory is inconsistent with the standard theory of the firm. The standard theory of the firm states that firms must become competitive to survive, but standard trade theory states that if a nation is not competitive its exchange rate will adjust to make it competitive without its having to undergo a painful adjustment or adopt competitive techniques. The primary determinant of prices is unit labor costs and the primary determinant of real exchange rates is the ratio of unit labor costs between countries. Rather than being free to move to make nations competitive, the real exchange rate is pinned by cost differences between nations.

Shaikh presented the results of an empirical study of the U.S. and Japanese real exchange rates from 1960 to 1995. He found that the unit labor cost theory explained the movements in real exchange rates for both countries well, except for the anomaly during the 1980s when there was a sharp, temporary spike in the value of the U.S. dollar. Based on these results, the policy rule of thumb for exchange rates should be that the sustainable rate is the rate that keeps up with movements in unit costs. There is no quick fix for competitiveness. Countries that want to remain competitive must modernize their economy and reduce costs.

Back to Contents

Special Projects

Summaries of New Working Papers

The Macroeconomics of Industrial Strategy

Philip Arestis and Malcolm Sawyer Working Paper No. 238, June 1998

Most economists and policymakers treat macroeconomic policy and industrial strategy as if they were completely unrelated topics. Visiting Senior Scholars Malcolm Sawyer, of the University of Leeds, and Philip Arestis, of the University of East London, examine the connection between the two. According to Arestis and Sawyer, the interest rate, the key macroeconomic target variable, is set with little if any regard for the substantial effect it has on investment and production. Similarly, economists tend to ignore the effect of industrial strategy on the nonaccelerating-inflation rate of unemployment (NAIRU) or the effect of aggregate demand policy on industrial capacity.

Arestis and Sawyer adopt a Post Keynesian approach in which institutions create credit money, there is a link between the real and monetary sectors, and there is no self-righting mechanism to insure full employment. Their model incorporates a NAIRU, but it is viewed as a capacity constraint rather than as the result of labor market imperfections, as many authors assume. Because the NAIRU is not a strong attractor, a high level of aggregate demand is necessary to attain a high level of employment. However, because the NAIRU is a capacity constraint, a high level of aggregate demand is not sufficient to ensure a high level of employment. High employment also requires an industrial strategy aimed at increasing capacity, thereby reducing the NAIRU.

It follows that policies aimed at increasing capacity are not only industrial strategies but also antiinflation and high-employment policies. Industrial strategy affects variables that are usually considered the exclusive realm of macroeconomic policy. However, there is another side to this coin. If full employment and low inflation

require increasing capacity, they require investment and high aggregate demand to encourage such investment. This view conflicts with the common view that stimulating aggregate demand when unemployment is at or near the NAIRU will only cause inflation. Instead, an aggregate demand stimulus is viewed as a necessary part of a strategy to move the NAIRU to a point at which full employment can be obtained.

Arestis and Sawyer conclude that the problem with attaining high levels of employment without inflation lies not in the labor market but in production. If the normal policy recommendation of depressing aggregate demand to reduce inflation is followed, it will also depress investment, which will further reduce capacity. A simple aggregate demand stimulus alone will cause inflation as the standard NAIRU theory predicts, but higher levels of employment can be achieved if an aggregate demand stimulus is combined with an industrial strategy to increase industrial capacity.

Back to Contents

An Ethical Framework for Cost-Effective Medicine: Confronting the Risks in Managed Care

Walter M. Cadette Working Paper No. 239, July 1998

Managed care has transformed the U.S. health and medical care industry in the last few years. Managed care, mainly in the form of health maintenance organizations (HMOs), is health care that is prepaid and governed by clinical practice protocols. It combines the roles of health care insurer and health care provider. Virtually all U.S. health care is managed in some ways. Almost 30 percent of insured Americans were covered by HMOs in 1997, up from 20 percent in 1990. Another 40 percent were insured by preferred provider organizations (PPOs), which, although not technically managed care, share some of the characteristics of HMOs. Managed care has been successful in reducing medical costs, but less successful in winning public support. There is widespread skepticism about managed care's ability to provide adequate care.

Senior Fellow Walter M. Cadette examines the managed care system from an ethical perspective. Managed care was developed to create a more cost-effective system than the fee-for-service system. In the fee-for-service system health care providers had little incentive to minimize costs. HMOs regulate diagnostic and treatment prescriptions to minimize costs, but managed care is not a "closed system" (like the British and Canadian systems) in which any dollar saved on one procedure is a dollar available for another procedure. In managed care every dollar saved may be a dollar of profit for the firm. And herein lies the potential for ethical conflicts. The HMO has an economic incentive not only to provide cost-effective care, but to choose the least expensive care or to deny care when possible. The writers of HMO protocols, who are not physicians, determine what physicians may do for a given patient.

According to Cadette, physicians have been drawn into these ethical conflicts as well. Because of the information asymmetry between physicians and patients, physicians have been fiduciaries, or trusted advisors, of their patients. Traditional medical ethics require physicians to determine the best possible care regardless of costs and to provide that care. The fee-for-service system fostered that practice, but also perhaps gave physicians an economic incentive to overtreat patients, prescribing procedures even if there was little expectation they would help. HMOs may replace the incentive to overtreat with an incentive to undertreat. In some plans physicians share directly in the costs of medical procedures. This puts the physicians' financial interest in conflict with the medical interests of the patients. Even physicians who do not directly share in the costs of procedures are pressured to follow HMO guidelines. Gag rules and the threat of being dropped from a managed care network make it difficult for physicians to discuss patients' medical options openly and honestly and to fulfill their fiduciary role.

Some proponents of managed care respond that individuals, seen as consumers of health care, exercise complete freedom of choice over their medical care when they chose an insurer. If they opt for cost-sensitive plans when healthy, they should expect the corresponding level of treatment. Cadette points out the limits on freedom of choice in the health care market. It is most often employers who choose the health care plans they

will make available to their employees. Also, to the extent that consumers have a choice, the asymmetric information between health care professionals and consumers and the enormous complexity of any health care system make it difficult for them to know what they are choosing.

Cadette assesses possible regulatory responses to managed care. He believes that government should not micromanage care, mandating particular procedures to be followed in particular situations, but it should focus on the fundamental issues of incentives and disclosure. Many government regulations are holdovers from the fee-for-service era to protect against overtreatment, but there is little protection against undertreatment. The 1974 Employee Retirement Income Security Act (ERISA) makes it extremely difficult for patients to sue health care providers for denial of care and prohibits states from experimenting with their own health care reforms. Cadette recommends that the government amend those two provisions of ERISA, institute purchasing cooperatives, mandate full disclosure by HMOs of financial incentives, and require that HMO protocols be written by physicians.

Back to Contents

Reciprocity and the Guaranteed Income

Karl Widerquist Working Paper No. 245, July 1998

For many years authors have argued over whether government redistribution of income is ethically justifiable. Recently, Philippe Van Parijs argued that the existence of external assets, assets that are not produced by human effort, justifies government provision of an unconditional guaranteed income that would provide all citizens with a minimum level of consumption without a work requirement. Stuart White countered that although external assets are not produced by human effort, many external assets require work on the part of their owners to generate a return. Taxation of only those external assets that generate a return without any effort on the part of the owners would not support a guaranteed income, and, thus, recipients of guaranteed income exploit workers, violating the principle of reciprocity.

Research Associate Karl Widerquist responds to White by asserting that a guaranteed income is not only consistent with but required for reciprocity. He argues that a society with privately held external assets but without a guaranteed income violates reciprocity; a guaranteed income is consistent with the principle of "envy-freeness"; and many of the taxes paid to support a guaranteed income will be paid by the owners of external assets and many of the beneficiaries will be low-wage workers.

According to Widerquist, an economy with privatized natural resources and no guaranteed income in effect says to citizens who do not own external assets, "They who will not work will not eat," but those who own a sufficient amount of external assets are exempt from the requirement to work. Widerquist suggests that this exemption violates the principle of reciprocity and that an unconditional guaranteed income would counteract this violation.

Widerquist addresses the argument that a guaranteed income exploits workers by pointing out that in a guaranteed income scheme workers have a choice between working and receiving a higher income or not working and receiving the guaranteed minimum income. If they choose to work, they must prefer working to receiving the minimum income and their position is envy-free relative to recipients of the guaranteed income. Recipients, however, may want to work but may not be able to find or hold a job and so their position is not necessarily envy-free relative to workers. In the sense that a guaranteed income gives the same opportunity to everyone, it is consistent with reciprocity.

Widerquist goes on to claim that White's description of a redistribution of income from workers to nonworkers is not the most accurate assessment of a guaranteed income system. Without a guaranteed income or some other unconditional redistribution scheme, workers face extreme poverty if they do not work. From this market position, they are unable to command high wages. An unconditional income gives workers the opportunity to decline work if the pay is too low or the working conditions are unsafe or unacceptable. Thus,

the guaranteed income will drive up wages by putting labor in a more advantageous position in the labor market relative to the owners of capital and natural resources. The guaranteed income, then, is not simply redistribution from those who work to those who do not work, as White portrays it. It will redistribute income from high-income people, some of whom work and some of whom do not, to lower-income people, some of whom work and some of whom do not, and in so doing it will reduce the possibility that workers will be exploited by employers. Widerquist asserts that the best approximation of a society without exploitation can be achieved by introducing an unconditional guaranteed income.

Back to Contents

Seminar

In Defense of Small Samples

Benjamin Lipstein

Benjamin Lipstein, of Baruch College and the Stern School of Business at New York University, discussed the advantages of small sample size at a seminar at the Levy institute on August 21. People who take surveys have a tendency to believe that a larger sample size means a better study, but this is not necessarily the case. Although a larger sample size may decrease the chance of statistical error, it can increase errors in obtaining the sample. The larger the sample the more difficult it is to make sure that every observation is collected accurately. Every interaction between the surveyor and the subject is an opportunity to introduce bias into the procedures; more interaction means more opportunities for bias.

According to Lipstein, researchers often use large samples as a substitute for a sound survey procedure, but more quantity does not make up for poor quality. For example, the Census Bureau attempts to count the entire U.S. population rather than making inferences about the population from a small sample. The logistical difficulty in contacting the entire U.S. population is so enormous that errors are common. The census undercounts infants by as much as 50 percent and it overcounts the elderly; it lost 2.8 million people in 1980, and 4.7 million people in 1990.

Longer surveys create the same problems as larger samples. For example, questionnaires may begin to bore participants, who may then begin to guess or answer quickly just to be done with the process. Lipstein concluded that good survey reporting is never just a report of figures but instead is mostly an interpretation of those figures.

Back to Contents

Institute News

New Members of the Research Staff

Jamee Moudud has joined the Levy Institute as a resident scholar. He holds an M.Eng. in electrical engineering and electronics from Cornell University and a Ph.D. in economics from New School University. In his dissertation, "Endogenous Growth Cycles and Money in an Open Economy: A Social Accounting Matrix Approach," he developed a nonlinear dynamical system that uses a variant of Distinguished Scholar Wynne Godley's stock-flow accounting matrix framework. Endogenous bank credit and the dynamics of business debt are fundamental to this model. Moudud derives a classical growth cycles model that is essentially a synthesis of Harrod's warranted growth path, the classical tradition's emphasis on internally generated growth, Kalecki's notion of endogenous cycles, and the Cambridge Economic Policy Group's stock-flow approach. The impacts of fiscal policy on foreign trade and the twin deficits problem are investigated within the context of this model. Moudud is currently linking the model to a longer-term empirical study of growth cycles and the various real and financial variables used to investigate them in order to discover "early warning indicators" of downturns and the macroeconomic policies that can be used to stabilize cyclical

fluctuations.

Moudud and Godley are working on the question of the stability of government debt dynamics. They will be investigating open economic macroeconomic issues and the Asian financial crisis and its impact on the United States and the world economy. This work will be carried out within the context of Godley's models of the United States and the world. Moudud is also studying the impact of government investment spending on private investment in a classical growth cycles model. He will perform cointegration tests on various countries to analyze "crowding-in" of private investment through fiscal policy.

Ajit Zacharias has joined the Levy Institute as a research associate. He completed his M.A. in economics at the University of Bombay and his Ph.D. in economics at New School University. In his dissertation he developed a time series model of profit rate differentials that overcomes some important limitations of previous econometric models. He employed the model to assess different theoretical predictions regarding long-run profit rate differentials, using data for U.S. manufacturing industries. Among the assessed theories, he found the classical theory of competition to be most consistent with observed profit rate differentials. His current projects include the econometrics of exchange rates, a historical overview of the changes in international capital and financial markets since the fall of Bretton Woods, and a Monte Carlo study on cointegration test statistics.

Congressional Policy Briefing

On September 16, Levy Institute scholars met with members of Congress and congressional staff to discuss recent Institute work as it applies to current issues. Among the research projects and policy papers discussed were William J. Baumol and Edward N. Wolff, "Technological Change and the Duration of Unemployment"; Barry Bluestone and Stephen Rose, "The Unmeasured Labor Force"; Oren M. Levin-Waldman, "Automatic Adjustment of the Minimum Wage"; Oren M. Levin-Waldman and George W. McCarthy, "Survey of Small Business: The Minimum Wage and the New Welfare"; David A. Levy, "The Outlook for the U.S. Economy"; Dimitri B. Papadimitriou and L. Randall Wray, "The Fed Should Lower Interests Rates *Now*"; and Marc-André Pigeon and L. Randall Wray, "Did the Clinton Rising Tide Raise All Boats?"

Back to Contents

Conferences

Employment Policies to Reduce Poverty

An all-day symposium, entitled "Employment Policies to Reduce Poverty," was held at Blithewood on September 24. The purpose of the symposium was to examine the extent of poverty today, its causes, and the effects of public policies designed to alleviate poverty. Topics of discussion included the incidence of poverty; structural and institutional reasons for poverty, such as the skills gap and immigration; the effectiveness of policies such as welfare reform, the minimum wage, and redistributive tax schemes; and new directions for policy. Among the participants were Vernon M. Briggs Jr., Cornell University; Robert I. Lerman, American University and the Urban Institute; Henry Farber, Princeton University and National Bureau of Economic Research; William A. Niskanen, Cato Institute; and Edward N. Wolff, New York University and the Levy Institute. Symposium proceedings, containing transcripts of the addresses and summaries of the sessions, will soon be available in print and online.

Conferences on Financial Structure

A conference on the work of Hyman P. Minsky will be held on April 21 and 22. It will be followed by the Ninth Annual Hyman P. Minsky Conference on Financial Structure on April 22 and 23. See the Levy Institute web site (www.levy.org) and the next issue of the *Summary* for program and registration information.

Presentations and Publications by Levy Institute Scholars

Distinguished Scholar Wynne Godley

Publications: "Motor Starts to Sputter," *Financial Times*, July 10, 1998; "Don't Let Gordon Off--He Is Not God," *The Observer*, August 23, 1998.

Senior Fellow Walter M. Cadette

Publication: "Privatizing Not the Answer for U.S. Social Security," Bridge News, July 22, 1998.

Presentation: "Social Security: The Challenge of Financing the Baby Boom's Retirement," Columbia University School of International and Public Affairs, September 21.

Vice Chairman and Director of Forecasting David A. Levy

Participant: Debates-Debates segments: Arguing yes on "Should the U.S. Back Bailouts When Countries Get into Trouble?" and "Should Alan Greenspan Lower Interest Rates Now?"

Senior Scholar Joel Perlmann

Publication: with Roger Waldinger, "Are the Children of Today's Immigrants Making It?" *The Public Interest*, Summer 1998.

Policy Advisor Edward V. Regan

Participant: Debates-Debates segments: Arguing no, "Does BIG Money Have Too Much of an Impact on Elections?" August 12; Arguing yes, "Is It Healthy That the Mammoth Funds Are Calling the Tune for Corporate America?" August 19.

Senior Scholar L. Randall Wray

Publications: (new title for forthcoming book) Understanding Modern Money: The Key to Full Employment and Price Stability (Elgar, 1999).

Presentations: "Government as Employer of Last Resort: Full Employment without Inflation," Post Keynesian Workshop, June 25? July 1; "Theories of Value Appropriate to the Modern Economy," European Association of Evolutionary Political Economy, Lisbon, November 5?8.

Visiting Scholar Mathew Forstater

Publications: "Institutional Approaches to Full Employment, Continued," Journal of Economic Issues, December, 1998; "Functional Finance and Full Employment for the 21st Century," Thinking Economics at the Close of the Twentieth Century: Reflections, Current Trends, and New Directions, edited by Eiman Zein-Elabdin (Routledge, forthcoming).

Presentations: "Retroduction in Economics," Conference on Economics, Methodology, and Philosophy, June 17; "Selective Use of Discretionary Public Employment and Economic Flexibility," Post Keynesian Workshop, June 25?July 1.

Resident Scholar Oren M. Levin-Waldman

Publication: "Exploring the Politics of the Minimum Wage," Journal of Economic Issues 32 (September 1998): 3.

Research Associate Karl Widerquist

Presentation: "The Public Commodities Problem: The Median Voter in a Polarized Electorate," Atlantic Economic Association, Boston, October 8?11.

Research Associate Ajit Zacharias

Presentation: "Political Economy of Globalization," 97th Annual Meeting of the American Anthropological Association, Philadelphia, December 2?6.

Research Assistant Marc-André Pigeon

Discussant: Atlantic Economic Association, Boston, October 8?11.

Back to Contents

<u>Home</u> | <u>What's New</u> | <u>Publications</u> | <u>Research Programs</u> <u>Forecasting Center</u> | <u>About the Institute</u> | <u>Keyword Search</u> | <u>Using Our Site</u>