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Summary

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

The Summary is published three times a year (Winter, Spring, and Fall) and is intended to keep the academic community informed about the Institute's research. To accomplish this goal, it contains summaries of recent research publications and reports on other activities.

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LETTER FROM THE PRESIDENT

To our readers:

This issue begins with an account of the Levy Institute conference on international perspectives on household wealth, under the distribution of income and wealth program, that was held at the Blithewood conference center. It was attended by approximately 75 people from academic, government, and financial institutions in North America and Europe. The presentations focused on the dynamics of the distribution of wealth across population subgroups, income levels, and regions. A common finding was the rapid growth in wealth, but increasing inequality, during the 1990s as a result of the euphoria in the financial markets. Population subgroups fared differently in spite of the broad-based growth of wealth, but the differences were not as pronounced in Europe. Some of the findings were contrary to the life-cycle model, as retirees were wealthier than the average due to inheritances and incentives to accumulate wealth prior to retirement. Four papers presented at the conference have been submitted as Levy Institute working papers and are listed at the end of the program.

A working paper by Research Director and Senior Scholar Thomas L. Hungerford finds that most lifetime minimum wage earners are women who tend to work few years. He therefore cautions against Social Security proposals that depend on the earnings histories of both husband and wife, which would adversely affect family retirement incomes.

A working paper by Research Scholar Asena Caner empirically analyzes the wealth accumulation rates and saving behavior of entrepreneurs. She finds that entrepreneurial households save more out of family income, and the decision to own a business is endogenous to the saving rate and the rate of capital gains on wealth.

Two working papers by Institute Professor Philip Arestis and Senior Scholar Malcolm Sawyer are included in the program on financial markets and monetary policy. In the first they note that inflation targeting is often a central tenet of economic policy, but its apparent success is not supported theoretically or empirically. Monetary policy should be concerned with price stability and the variability of output around full employment, they say, rather than the ruthless pursuit of price stability at the expense of economic growth and well-being. In the second the authors model the relationship between inflation and employment and find no automatic forces leading to a level of aggregate demand that is consistent with constant inflation. They find that supply-side constraints arise from capacity constraints rather than the labor market, and that productive capacity and investment play significant roles in the level of inflation.

A policy note on deflation by Senior Scholar L. Randall Wray opens the program on federal budget policy. He notes that there are no effective policies to relieve deflationary pressures and that it is not a burden for the U.S. federal government to spend its way to economic prosperity. He suggests putting unemployed resources back to work.

A policy note and working paper by Senior Scholar Anwar M. Shaikh and Research Scholars Gennaro Zezza and Claudio H. Dos Santos outline The Levy Economics Institute macroeconomic model, which is used to analyze the effect of trading partners on the U.S. current account deficit. They present newly-developed measures of the real GDP of the trading partners to explain the sharp deterioration of the U.S. balance of trade since 1992. They find a complex pattern showing that the trade balance deteriorated irrespective of the relative growth rates among the United States and its various trading partners.

My working paper with Wray reviews deflation in the context of monetary and fiscal policy and finds that it is a symptom of severe and chronic economic problems. The current danger is asset price deflation, which could set off a classic Minsky-Fisher debt deflation spiral and recession. Therefore, the expected return to private sector surpluses would have to be counterbalanced by very large government deficits. We recommend a discretionary federal government stimulus package to boost household incomes without curtailing consumption, a permanent employer tax credit, increases in federal aid to the states, and more investment in public infrastructure.

As always, I welcome your comments and suggestions.

Dimitri B. Papadimitriou, *President*

Program: Distribution of Income and Wealth

Conference: International Perspectives on Household Wealth

This conference, organized by Senior Scholar Edward N. Wolff of New York University, represents the Levy Institute's commitment to continue its research into the distribution of income and wealth, and how this distribution affects the quality of life. It was held October 17–18, 2003, at the Levy Institute conference center located at Bard College, Annandale-on-Hudson, New York. Summaries of the sessions and speakers' remarks are given below. Audio of the conference can be accessed from the Webcast Archive page of the News & Events section of the Institute's website.

Session 1. Wealth Changes in the United States over the 1990s

Chair for the session was Levy Institute President DIMITRI B. PAPADIMITRIOU. The participants were ARTHUR B. KENNICKELL, Board of Govenors, Federal Reserve System; JOHN L. CZAJKA, Mathematica Policy Research, Inc.; and TIMOTHY M. SMEEDING, The Maxwell School, Syracuse University.

Kennickell analyzed family wealth for the period from 1989 to 2001 and found that it grew broadly during that time, when important changes occurred in financial services and other economic structures. He used the Federal Reserve's Survey of Consumer Finances (SCF) along with tax return information, which provided detailed data on the assets and liabilities of a broad cross section of U.S. citizens. Kennickell found that the richest 1 percent, the next richest 9 percent, and the remaining 90 percent of Americans each held approximately one third of net household wealth. Wealth grew relatively strongly at the very top of the distribution, especially for the 400 wealthiest Americans (the *Forbes* 400). This group rapidly gained wealth during the 1990s before declining, which probably reflected the fluctuations of the financial markets after 2000. The author noted that, of the 400 individuals on the *Forbes* 400 list in 2001, 170 of them were on the list in 1989.

The ownership of certain forms of wealth, such as stocks and bonds, was more highly concentrated in the highest 10 percent of the wealth distribution than net wealth as a whole. The top 1 percent held a smaller share of total stock market wealth in 2001 than in 1989, a result that probably reflected the increasing importance of individual retirement accounts (IRAs). Kennickell found that leverage tended to decline sharply with wealth.

The percentage of Americans with zero or negative net worth barely fell (from 7.3 to 6.9 percent) during the period of the study. The young (60 percent of families headed by an individual 35 or younger) and minority groups were disproportionately represented in the zero or negative net worth group, and they tended to hold credit card and installment debt (e.g., education and vehicle loans).

The paper considered the case of the older "baby boomers" (families headed by persons between the ages of 46 and 55 in 2001) and compared the wealth of African American and white non-Hispanic families. Wealth increased for the baby boomer families, which was expected according to life-cycle patterns, but the most striking growth occurred at the bottom and top of the wealth distribution for the group. In 1989 the median wealth of African Americans was only 5 percent of that for white non-Hispanics, while in 2001, the fraction was 16 percent. Differences were most striking at the two ends of the wealth distribution. A higher fraction of African Americans had net worth less than or slightly above zero, while a much larger fraction of white non-Hispanics had wealth in excess of $250,000.

The author suggested that his study should be extended to include portfolio structure and the types of institutional relationships supporting that structure as a result of the recent array of financial services.

Czajka described the findings of his study with coauthors Scott Cody and Daniel Kasprzyk of Mathematica Policy Research, Inc., Washington, D.C., for the Social Security Administration. Using data from the SCF and the U.S. Census Bureau's Survey of Income and Program Participation (SIPP), the authors examined nine subpopulations (defined by family income and other characteristics) and found that various groups fared differently in spite of the broad-based growth of wealth in the 1990s.

Age differentials in net worth widened—the wealth of older individuals grew more rapidly than that of the young. People under 30, on average, became 20 percent poorer, while people over 75 held 50 percent more net wealth by the end of the period. The average net worth of non-Hispanic whites grew the fastest among all racial and ethnic groups, so the wealth gap widened significantly. There was an increase in leverage ratios (mean liabilities divided by mean assets) among African Americans and Latinos, and the mean wealth of American Indians and Alaskan Natives did not change.

Income groups also fared differently. The median wealth of the low-income group (incomes less than 200 percent of the poverty line) declined significantly, while groups with higher income became richer (SCF database). Although the mean net worth of the low-income group grew rapidly, Czajka noted that it started from a low base, so the increase in wealth was small in dollar terms.

Social Security recipients under age 65 (mostly disabled people), a focus of the study, fared relatively poorly by almost every measure. The group's mean net worth fell by 2 percent according to the SIPP database, but this finding was not consistent with the results using the SCF database.

Smeeding, as discussant, noted that he expected certain findings in Kennickell's paper, but there were some intriguing surprises, such as the mixed results associated with the welfare of racial and ethnic minorities. While these groups held more checking accounts and owned more homes at the end of the period, a greater proportion of minorities became indebted. He pointed out that the time period chosen to analyze trends in the distribution of wealth potentially affects the results. For example, the SIPP database used by Czajka and his coauthors did not cover the period after 1999, so their work did not reflect recent developments in the stock market.

Smeeding suggested that the high debt levels cited in both papers might not be undesirable if debts consisted mainly of student loans, which enable people of modest means to attend college, and mortgages. He expressed disappointment that the Czajka paper did not provide a more detailed picture of the groups gaining or losing ground during the 1990s and requested that the authors expand their study, look for patterns related to key assets and groups, and include median data in their presentation.

Smeeding expressed a need to pursue comparative wealth studies across countries. He noted that factors such as assets, leverage ratios, and debts, or changes in the mean, may be comparable across countries, but that Gini coefficients are not.

Session 2. Wealth Inequality in Scandinavia

Chair for the session was Levy Institute Senior Scholar EDWARD N. WOLFF of New York University. Participants were N. ANDERS KLEVMARKEN, Uppsala University, Sweden; MARKUS JÄNTTI, Abo Akademi University, Finland; and LARS OSBERG, Dalhousie University, Canada.

Incentives to accumulate private wealth for retirement have been fewer in Sweden than in many other countries with different pension systems. Klevmarken presented a paper on private wealth in Sweden during the 1990s, a period when the tax system was reformed, uncertainty regarding the future viability of the public pension system was increasing, and the stock market rose dramatically. He found that the 1991 tax reform (e.g., cuts in marginal tax rates, a broader tax base) changed portfolio compositions (the share of financial assets increased from 17 percent to 28 percent). Moreover, he found that doubts about the public pension system resulted in an increase in private savings in pension policies, and that the baby-boom cohorts would retire wealthy as a result of living during prosperous times and having claims on the pension system. Therefore, there were large differences in wealth among ordinary people, but the differences were not as pronounced as those in the United States.

The author analyzed two sources of information: household wealth derived from Statistics Sweden (including register data and reports from banks, brokers, and insurance companies to the tax authorities), and a household panel survey. The results of the analysis were sometimes inconsistent because of differences between the two sets of data in the definitions of households, in the age ranges covered, and in the types of assets.

At the heart of Klevmarken's study were statistical tests to determine the main factors affecting net wealth. Controlling for factors such as education and residence, the author found that wealth increased with age. This finding conflicts with the life-cycle theory of savings (i.e., people save when they are young and middle-aged, and spend during retirement). However, the effects of aging may have been incorrectly attributed to other factors, noted Klevmarken. When other factors are set aside, a hump-shaped pattern of wealth accumulation over the life cycle appears, at least for the relatively wealthy. The poor do not spend their savings when they reach old age because they have little savings.

Klevmarken discovered relationships among net worth and other variables, especially education, immigrant status, residence, and home ownership. Individual wealth holdings may not be as important in Sweden because the public pension system is the most important form of wealth accumulation during one's career. In recent years, however, the Swedish people have purchased more financial assets, a finding Klevmarken attributed to widespread concern over the financial health of the public programs.

As in Sweden, Finland experienced a surge in income inequality (although it remains low by international standards) in the 1990s, as the wealthiest decile fared especially well during the decade. Using Statistics Finland wealth survey data for 1988, 1994, and 1998, Jäntti explored the role of wealth in increasing economic inequality during a period when there were large changes in the capital markets and in overall economic conditions. He found that income inequality increased substantially from 1987 to 1998, that the increase in income inequality was accompanied by an increase in the inequality of wealth (gross and net), and that changes in observed population characteristics were a minor contributor to the increases in inequality.

Jäntti's investigation of the marginal distribution of disposable income, gross wealth, debts, and net wealth showed that average net wealth increased, but disparities widened (according to the Gini coefficients) among the Finnish people, particularly in the late 1990s. He also found that the U-shaped pattern in gross wealth was driven by the housing and securities components. Substantial increases in property income and wealth that generates property income may partly explain why the inequality of income and of wealth are two sides of the same phenomena. According to Jäntti, the increase in property income has relevance with respect to policy: if inequality reduction is a policy goal, then the shift away from the double taxation of property income to taxing it only at source may need to be reconsidered.

The author attempted to separate the effects of various factors on net worth and income and to track changes in the effects over time. He found that increasing income inequality among the Finnish people could be attributed to changes in the advantages of certain groups, such as older cohorts and men, rather than to changes in the number of people in each group (even if the demographic makeup of the country had remained the same, inequality in incomes would have increased significantly).

The author analyzed the correlations between income and wealth to determine why high-income households tend to have high wealth. He found that, among households with similar income, the variability of wealth increased from 1987 to 1998. Therefore, the rise in wealth inequality cannot simply be explained by the increasing inequality of incomes.

Osberg, as discussant, made a number of methodological comments that applied to both papers. He argued that average wealth and debt figures were not very helpful in analyzing the distribution of wealth. He said the papers should have focused more on the upper and lower tails of the distribution (e.g., the wealth of the richest and poorest deciles of the population). This approach is particularly important when a relatively small number of households controls a significant proportion of the wealth, as wealthy people may differ from the general population in terms of their saving habits and motives. While the wealthy may have more income than they can spend, low- and moderate-income groups may be unable to borrow money that they need for essential expenses. Since housing probably makes up a large portion of the wealth of the lower-income groups, tax laws affecting housing may play an important role in enabling middle-class households to accumulate wealth. The authors, therefore, should have outlined housing incentives and their differential treatments in the various countries.

Osberg suggested that the papers explore changes in the aggregate saving rate within the distributions, the relationship between public pensions and savings, the sensitivity of cohort wealth to equivalence scales, the effect of events after 1998, and how the results of the analysis change using household versus individual data.

Keynote Presentation

The keynote presentation of the conference—the Levy Institute Measure of Economic Well-Being (LIMEW)—was given by EDWARD N. WOLFF, AJIT ZACHARIAS, and ASENA CANER. They claimed that the LIMEW measure is the most comprehensive measure of economic well-being in the United States and, perhaps, the world. Some of the innovative items that are included in the LIMEW measure are the value of government services that directly benefit households, the effects of taxation, production within the household, and wealth holdings, such as stocks and bonds.

Two crucial characteristics of LIMEW are that its components can be converted into money equivalents and that it is constructed as a household-level measure for different percentiles of the income distribution. The authors calculated well-being in the United States and its regions in 1989 and 2000, the terminal years of the last two economic expansions, and found that the median income increased by 11 percent, compared to 5 percent by the standard income measures, which is a marked improvement in economic well-being. Similar results were found for other percentiles of the income distribution.

The fastest growing component of LIMEW was imputed rent and annuities (37 percent) followed by government transfers and Medicaid expenditures. Taxes surged by 29 percent, while net government expenditures declined by 123 percent. The value of household production grew by only 7 percent, while the composition of housework changed dramatically (the hours of childcare doubled). The mean value of LIMEW was driven primarily by base money income and imputed income from wealth.

Disparities among income groups are considerably less using the LIMEW measure because the poorest groups receive relatively large amounts of net government expenditures. The racial gap in economic welfare is also much lower, and the gap was shown to narrow due to relative gains in imputed wealth and household production for nonwhites.

The presenters concluded that it is important to have a more comprehensive measure of well-being, since observed trends depend upon the inequality measure used (e.g., the LIMEW measure is more equally distributed than standard money-income measures). They plan to update their economic well-being measures at regular intervals, and construct comparable measures for some members of the Organisation for Economic Co-operation and Development.

For a more comprehensive overview of the LIMEW model, see Working Paper no. 372 in the Summer 2003 Summary.

Session 3. Wealth Trends in Europe

Chair for the session was Levy Institute Research Scholar AJIT ZACHARIAS. Participants were ANDREA BRANDOLINI, Bank of Italy; RICHARD HAUSER and HOLGER STEIN, Goethe University, Frankfurt am Main, Germany; and JAY ZAGORSKY, Ohio State University.

In a coauthored paper with Luigi Cannari, Giovanni D'Alessio, and Ivan Faiella, Brandolini presented the findings of a study about the distribution of household wealth in Italy in the 1990s. He focused on the quality of the data (some of the data was irreconcilable due to various classifications and definitions) and the changes in asset prices. The study used the Survey of Household Income and Wealth (SHIW) by the Bank of Italy, which is an annual sample of approximately 8,000 households collected in personal interviews. Participation in the survey is voluntary, so there was considerable variation in the response rate. Brandolini noted that data on wealth was less reliable and that its accuracy varied by asset (e.g., tangible asset accuracy was higher than that for financial assets).

The authors adjusted the SHIW data by correcting for nonresponses, nonreporting, and underreporting, but some problems remained (e.g., the survey only accounted for 61 percent of financial assets). Brandolini noted that in spite of corrections to the data, the results reflected the imprecise representation of the upper tail of the wealth distribution, so the results should be interpreted with caution.

The analysis showed that the distribution of household wealth in Italy exhibited the same highly asymmetric profile as other countries (e.g., the 95th percentile of the wealth distribution greatly exceeded the median and the mean) and that the bottom 40 percent of Italian households held only 7 percent of the total wealth. The average net worth of Italian households grew in real terms by 2.7 percent per year, while real disposable income remained unchanged. Inequality trended markedly upward toward the end of the 1990s, as the distribution of financial wealth widened at a much faster pace than the distribution of net worth. The widening of the size distribution of net worth was spread across all population groups and was only marginally attributed to demographic characteristics.

Asset holdings varied considerably across the wealth distribution: consumer durables were the largest fraction at the bottom, while real estate represented a very high proportion in the middle classes. Businesses and risky financial assets were frequent among the rich. There appeared to be much more equality in the distribution of household wealth in Italy than in Canada or the United States.

In a coauthored study with Holger Stein, Hauser outlined the results of a study of the distribution of personal wealth in Germany for the period 1973 to 1998. Using several cross-sectional income and consumption surveys by the German

Federal Statistical Office, the authors found that there was a decrease in the inequality of disposable household wealth until 1993, followed by a slight increase. As in other countries, the lowest four deciles had a negligible share of total disposable wealth. However, there appeared to be a broader upper-middle class than in other countries.

Hauser noted that the surveys were large quota samples that excluded the very rich and other groups, so the measures of inequality probably represented the lower bounds. The statistics within the various surveys also changed over time, making comparisons potentially misleading.

Inequality was higher for disposable household wealth than household or personal disposable income. With the exception of 1998, the distribution of net financial assets was more equal than total disposable wealth.

In most countries, home ownership is widespread and an "equalizer" of net wealth, while financial assets are concentrated in the wealthiest groups. In Germany net financial assets as a share of total disposable wealth (one-quarter) rose during the period from 1983 to 1998, while the share of net housing wealth (three-quarters) fell. The ownership rate of houses (approximately 50 percent) is much lower in Germany than in other countries, as housing prices are high compared to net incomes. Therefore, net housing wealth is more unequally distributed than total disposable wealth, while net financial wealth is less unequally distributed than disposable wealth.

Hauser analyzed the profiles of disposable wealth for several generations that had reached old age and found that net wealth peaked near, or soon after, retirement. This finding indicated that many people inherit wealth when their spouses die. Therefore, retirees are wealthier than the national average and maintain above-average disposable wealth as a result of a generous pension system and social insurance. This finding is contrary to the life-cycle model. The authors suggested that the bequest motive should be modeled with respect to surviving spouses in order to improve the explanatory power of wealth accumulation and distribution models.

The authors also measured inequality among age groups and found a pattern of high inequality among young households, declining inequality to retirement, and increasing inequality in old age—the exact opposite of the authors' expectations.

A comparison between eastern and western Germany showed, surprisingly, that there was greater wealth inequality in the east. There was, however, lower inequality in household disposable income and personal equivalent income in eastern Germany. Since unification, there has been a strong tendency for the distribution of income and wealth in the east to converge with the west. The authors expected a rise in inequality as a result of further retrenchment of the welfare state and the effect of inheritances.

Zagorsky, as discussant, noted the trend toward increasing wealth inequality in Europe. He also noted that regional wealth differences were increasing in Italy (north versus south) and decreasing in Germany (west versus east). He further noted, with surprise, that Germans were less wealthy than the Italians and attributed the disparity to Italy's high home ownership rates and the fact that household net worth had been growing at roughly 5.5 percent per year since 1965. Zagorsky pointed out that the adjusted net wealth per capita in Italy was twice as high as that of the United States in 1998. Moreover, Italian households had a relatively small debt burden compared to households in other wealthy nations. Zagorsky proposed further study of the very high Italian household savings rates (16 percent in 2001) and of the regional wealth differences between Germany and Italy.

Session 4. Wealth Trends in America

Chair for the session was Levy Institute Professor of Economics PHILIP ARESTIS. Participants were RENÉ MORISSETTE, XUELIN ZHANG, and MARIE DROLET, Statistics Canada; SEYMOUR SPILERMAN and FLORENCIA TORCHE, Columbia University; and DALTON CONLEY, New York University.

Morissette presented a coauthored paper on the evolution of wealth inequality in Canada. The paper examined the extent to which wealth inequality is affected by changes in family structure, age, and relative wealth. Using data from the Assets and Debts Survey of 1984 and the Survey of Financial Security of 1999, he found that real average and median wealth rose approximately 10 percent as wealth inequality increased over time. Median wealth fell in the bottom three deciles of the wealth distribution and rose 27 percent or more in the top three deciles. Changes in the wealth structure contributed to the rise in wealth inequality: there was a significant wealth increase in family units whose major income recipient was a university graduate and a wealth decline in family units between the ages of 25 and 34. Permanent income and socio-demographic characteristics of families were not major factors behind wealth inequality. Aging of the Canadian population reduced wealth inequality, while registered retirement savings plans (RRSPs) contributed the most to wealth inequality.

The authors defined wealth of a family unit as the difference between the value of total assets and total debts, excluding all future earnings (including Social Security and work-related pension plans). The two databases were adjusted to make the concept of wealth comparable between the surveys. Three different samples were used in the analysis: all family units, all family units with the exception of the top 1 percent of the wealth distribution, and all family units with the exception of the top 5 percent. Three inequality measures were applied to the database: the Gini coefficient, the coefficient of variation, and the exponential measure.

Using the Lorenz curve, the authors confirmed that wealth inequality widened between 1984 and 1999. It increased more among nonelderly couples with children and single-parent families. The authors also found that wealth inequality increased within many population subgroups. Factors that did not significantly affect the wealth gap included education, single-parent families, family size, province of residence, and urban/rural status. As measured by cross-sectional data, changes in permanent income and sociodemographic characteristics explained, at most, 8 percent of the growing wealth gap.

Financial wealth was defined as net worth minus net equity in housing and business, and its relative importance in net worth rose over time. The four wealth components—RRSPs; stocks, bonds, and mutual funds; mortgages; and business equity—accounted for most of the growth in wealth inequality. In an accounting sense, the growth of wealth inequality is explained by the growing contribution of RRSPs, stocks, bonds, and mutual funds, which was partially offset by the declining contribution of business equity (the distribution of businesses trended toward very small firms) and deposits.

In a coauthored study with Florencia Torche, Spilerman presented the effects of household net wealth on the economic "vulnerabilities" of people in Chile, where there is a weak safety net. The authors anticipated that significant holdings of wealth would enable households to pay their monthly expenses during times of distress. Wealth would also reduce people's worries about providing for retirement, paying unanticipated medical bills, or handling unexpected setbacks.

The focus of the study was the ability of people with various incomes to meet economic challenges. Using data from a 2003 survey of 4,400 Chilean households, the authors found that household wealth, along with social networks and income, had strong effects on the ability of households to pay their monthly expenses. As expected, families with a second income felt less vulnerable, while high levels of education increased feelings of household vulnerability (after controlling for factors such as income).

Income levels in households with little wealth had a strong effect on whether there were enough resources to pay the monthly bills. Wealthier households were less dependent upon ongoing income streams, while households with low incomes were more likely than the low-wealth/high-income households to report that they had enough money to pay their bills. Wealthy Chileans were more likely to save when having relatively high incomes.

Spilerman presented data on whether having relatively high wealth protected households from long-term worries about retirement, unemployment, and medical catastrophe. Holding other factors constant, he found that income, and enrollment in the private pension system (which includes most Chilean workers), had no impact on concerns about retirement. Rather, the key factors were social capital and financial wealth, which played an important role in a person's perceived ability to pay unexpected medical bills.

Conley, as discussant, commented on the explanation of rising wealth and income inequality in Canada and the role of permanent income. He noted that there are different ways of measuring permanent income and that labor market dynamics may have undersold the explanations. He suggested getting a better measure of income over time and that immigration may be affecting the bottom levels of the distribution.

In terms of the Chilean study, Conley questioned whether low wealth led to economic anxiety or whether economic anxiety and income instability led to low wealth. He noted the possibility of reverse causation of the main variables, i.e., people may save more if they anticipate future vulnerability toward such things as job losses. He proposed running split-sample regressions, with the observations divided on the basis of asset ownership.

Session 5. Saving Behavior

Chair for the session was WEI-JUN JEAN YEUNG of New York University. Participants were ERIK HURST, University of Chicago, and ANNAMARIA LUSARDI, Dartmouth College;

NGINA CHITEJI, Skidmore College, and DARRICK HAMILTON, New School University; and MAURY GITTLEMAN, Bureau of Labor Statistics.

Liquidity constraints—the inability to borrow and finance entrepreneurial projects—are often cited as an obstacle to new business formation. In a coauthored study, Hurst found that there is no discernible relationship between household wealth and the 3-percent probability of starting a business throughout most of the wealth distribution. The main reason is that initial capital investments are small (the median was $22,700 in 1987 and 25 percent of small businesses started with less then $5,000) and many small businesses receive loans. There is a strong relationship between wealth and entrepreneurship, however, for very wealthy households, as a result of their higher tolerance for risk and the personal-consumption component to business ownership (e.g., power over decision-making, a flexible time schedule).

Using data from the Panel Study of Income Dynamics (PSID) and the National Survey of Small Business Finances for the period from 1984 to 1994, Hurst found that the relationship between initial household wealth and the propensity to start a business was highly nonlinear, with the exception of households in the top 5 percent of the wealth distribution. Recent changes in wealth, such as inheritances and housing capital gains, were unrelated to business entry. He also found that entrepreneurs were more likely to be white, male, married, highly educated, and have high incomes and wealth.

Using a probit model, Hurst found that wealthier households were more likely to become entrepreneurs, but the marginal effect of an incremental change in wealth was small. The relationship between wealth and starting a business was examined for high- and low-capital industries and professional industries. There was no indication that liquidity constraints were a deterrent to small business formation. As a function of wealth, the probability of starting a business in a high-capital industry was similar to the probability in a low-capital industry, with the exceptions of the wealthiest households and professional industries. The results held when accounting for self-selection issues.

Using instrumental variables regression, household net worth in 1989 combined with past and future inheritances was positively and significantly related to business entry from 1989 to 1990. This result casts doubt on the claim that the positive relationship between inheritances and business entry is the result of liquidity constraints discouraging new business creation. Hurst suggested that future research examines dimensions of the entrepreneurial process that could be affected by liquidity constraints, such as starting businesses at their optimal scale, as well as the role of family background and the survival rate of businesses.

Kin networks frequently tie individuals together financially. Therefore, the economic circumstances of relatives could affect an individual's saving behavior. In a coauthored paper, Chiteji examined the implications of family-based forces for wealth accumulation, wealth inequality, and public policy. Using 1994 data from the PSID, the paper focused on middle-class families by income (the middle 60 percent of the income distribution), education (the head or partner had a college degree), and occupation (the head or partner was classified as managerial or professional).

Chiteji examined the patterns of financial asset ownership across middle-class families and compared black families with white. Black families exhibited lower asset, bank account, and stock ownership rates, as well as lower income and wealth. A higher proportion of black families received aid (e.g., food stamps, public housing) and were unemployed. Similar income, educational and occupational differences extended to the economic status of siblings.

Probit regressions were used to determine if there was an empirical connection between a family's wealth accumulation and the economic circumstances of kin. Race (being black) negatively affected the probability of owning a bank account or stocks, asset ownership, and wealth accumulation. Additional models that were used to analyze parental and sibling poverty and additional controls did not significantly affect the main results.

The wealth gap between black and white households ($35,733) was the result of demographic variables such as the household head's marital status and gender, and number of children (9 percent); socioeconomic variables such as schooling, occupation, and income (23 percent); and family background, including wealth (15 percent). The main factors contributing to the gap were parental wealth, average lifetime income, and family poverty. However, 57 percent of the gap remained unexplained. The inclusion of parental and sibling economic needs in the model reduced, to 45 percent, the unexplained portion of the gap. Relative to white families, black families suffered a 27-percent reduction in their wealth as a result of kin networks.

This result suggests that the economic circumstances of kin have important implications for racial wealth disparities.

Chiteji noted that changes in social policy that reduced public support for the poor may have unintended and unequal consequences for the nonpoor. She suggested further research into the possibility that nonpoor relatives are becoming low-wealth relatives by providing assistance to poor family members. An ideal test would use longitudinal data and information on transfers by middle-class families, and include the health circumstances of kin.

Gittleman was the discussant for the Session 5 papers. He noted that the Hurst and Lusardi paper was excellent and had been accepted for publication by the *Journal of Political Economy*. The authors made a very convincing case for the unimportance of liquidity constraints, he said, including the weakness of inheritances as an instrument for starting a business. Suggested follow-up research included the possibility that liquidity constraints could become binding after starting a business, and personal bankruptcy of less wealthy families could be the result of borrowing at higher interest rates.

Gittleman noted the difficulty in conducting a convincing empirical strategy to find out whether welfare reform policies affect the nonpoor. Suggestions for strengthening the Chiteji and Hamilton paper included outlining the exposition and motivation for the empirical strategies at the outset; analyzing actual data on income transfers; emphasizing parental wealth as an independent variable; and taking advantage of the longitudinal structure of the data base. The effect of changes in public policy, such as the earned income tax credit, may be a promising avenue of study, he suggested. Some technical considerations included separate multivariate analysis of African Americans and whites; pooling data to create larger sample sizes; providing additional motivation for the analysis of account and stock ownership; using weights in the multivariate analysis and actual inheritance data in the regressions; and further consideration of the decomposition of racial differences in wealth.

Session 6. Wealth Mobility and Public Policy

Chair for the session was Levy Institute Research Director and Senior Scholar THOMAS L. HUNGERFORD. Participants were LISA A. KEISTER, Ohio State University; PIERRE PESTIEAU, University of Liège, France, and HELMUTH CREMER, University of Toulouse, France; and ROBERT A. MARGO, Vanderbilt University.

Keister explored the relationship between religious affiliation and participation and early adult wealth accumulation in the United States. She surmised that religion affected wealth ownership directly (e.g., it shapes values and priorities, and provides important social contacts) and indirectly (it shapes processes that determine family wealth, such as fertility, divorce, education, and earnings).

Using the National Longitudinal Survey of Youth administered by the Bureau of Labor Statistics, Keister focused on the 1979 cohort and estimated time-series models of wealth ownership for the period from 1985 to 1998. She modeled the respondents' total net worth and financial assets as an adult, and the likelihood of respondents receiving an inheritance or owning a home. Religious affiliations in childhood and adulthood were identified as Jewish, conservative Protestant, mainline Protestant, or Roman Catholic. Keister controlled for various individual and family attributes that are related to wealth ownership, such as household income, inheritance, education, family size, family traits, and demographics. She applied generalized least squares regression to model net worth, the value of financial assets and home equity, and used optimal matching (a method designed to identify common patterns) to explore financial trajectories.

Keister identified three dominant patterns of asset ownership: the permanently asset poor; an early transition to cash accounts and home ownership; and an early transition to financial wealth. Being raised Jewish and practicing Judaism as an adult were associated with tremendous gains in wealth. Conservative Protestants were relatively wealth-poor, while affiliation with mainline Protestants and Catholics had no significant relationship with wealth ownership. Church attendance in childhood and adulthood was positively and significantly related to adult wealth.

The patterns in the descriptive statistics were upheld in the multivariate analyses, after controlling for financial resources, family background, and other important individual and family predictors of wealth. The findings affirmed the author's hypotheses about relationship patterns between religion and wealth: religion is an important element of culture and family processes are important in shaping the way people accumulate assets. Keister suggested that understanding different methods of saving and removing structural and policy barriers to investment might lessen wealth inequality.

Pestieau, in a coauthored paper with Helmuth Cremer of the University of Toulouse, focused on the criteria of equity and efficiency with respect to such wealth transfers as inheritance and estate taxes. He noted that equity can only be measured by relying on some normative criterion, while efficiency implies minimizing distortions in economic activity. He also noted that the implication of inheritance taxation depends on the reasons that people leave assets when they die.

To understand the importance of gifts and estate transfers, the authors examined various bequest motives—altruistic, paternalistic, strategic, and accidental—using an overlapping generation (canonical) model. The model included three tax instruments: a proportional tax on earnings, interest income, and inherited wealth. The authors introduced various wealth transfers into the model and successively considered the bequest motives in order to determine the optimal tax structure (i.e., how transfers between generations ought to be taxed). The authors distinguished between taxation at death and taxation on inter vivos gifts, as well as among three categories of death taxes: estate, inheritance, and accession. They found that the optimal tax structure and the impact of any distortionary taxation depended on the bequest motive. Since legal institutions regulating wealth transfers varied among countries, the authors compared the United States with countries in the European Union.

The study showed that estate taxation reflects a concept of family and state that is different from inheritance taxation, and that wealth transfer taxation in the United States is different from continental Europe. Abandoning death taxation would have little consequence in Italy, but relatively more importance in the United States, where it represents 1.16 percent of total tax revenues. The study also showed that the optimal tax regime is different from existing tax regimes: it resembles the inheritance tax, but without compulsory equal sharing. Wealth transfer taxation, with its poor yield and inequality (vertical and horizontal), is not successful if the primary objective is to reduce the government's reliance on other taxes. Tax avoidance and evasion, tax competition, and an alleged adverse effect of estate taxation on family businesses are issues with a political impact, but few studies have analyzed the effect of these issues, said Pestieau.

Margo, as discussant, suggested improvements in Keister's empirical analysis, such as using Oaxaca-Blinder decompositions rather than ad hoc (dummy) variables for religion. He also noted that the panel structure of the data was only exploited to a small extent, and that the "effects of religion" observations were correlations and should not be equated with causation. The discussant further noted that many things were not controlled for in the regression analysis (e.g., the relative price of owner-occupied housing in the homeownership regressions). He agreed that differences in wealth are correlated with religious affiliation, but he was skeptical that these differences were the result of religious affiliation. Further research is necessary before we can be confident in measuring the "treatment effects" of religion, he said, and the paper's insights should be applied to other eras and countries; particularly, changes over time.

Margo suggested that the theory in Pestieau's paper should be supplemented with more empirical data, such as history of estate taxation and the economic effects of wealth taxation. How do variations in estate taxes affect such things as capital accumulation, fertility decisions, or inter vivos transfers? He suggested a link between estate taxation and private foundations in the United States, contrary to countries with fundamental differences in the level of government activity in the economy.

Session 7. Wealth among the Low-Income Population

Chair for the session was MARK WILHELM of Indiana University–Purdue University Indianapolis. Participants were FRANK P. STAFFORD and ELENA GOUSKOVA, University of Michigan; ASENA CANER, Research Scholar, the Levy Institute, and EDWARD N. WOLFF, Senior Scholar, the Levy Institute, and New York University; and HOWARD IAMS, Social Security Administration.

In a coauthored paper with F. Thomas Juster of the University of Michigan, Stafford (via audio feed) and Gouskova examined three aspects of household portfolios—diversification, composition, and management—that shape portfolio allocation decisions. Using the PSID for the period from 1984 to 2001, the authors examined participation rates in the main components of household wealth, assessed the factors shaping choices among the top portfolio combinations in successive time periods, and considered the timing of asset holding decisions. They found that portfolio size was strongly associated with variables such as income, wealth, and education, and that family net worth had increased by approximately 50 percent (although the growth in net worth varied greatly across demographic groups). They also found that portfolio allocation decisions are extremely diverse, that families hold a greater number of portfolio components over time, and that there is increasing dispersion of wealth. However, average wealth remained low among African American households and the gap between African Americans and whites remained large. The probability of a "null" portfolio (no wealth) was more than eight times higher in African American households than white.

The authors examined seven types of portfolios and found that portfolio choice was strongly associated with income, race, and education. They applied mutivariate modeling and two approaches (linear and Poisson regressions) to separate various factors affecting household portfolio size. Education and marital status had significant positive effects on portfolio diversification, and race was significant (African American households averaged one fewer asset in their portfolios than whites). The changing composition of socioeconomic factors, rather than changes in household behavior, were shown to increase diversification.

The authors also studied how income, wealth, and demographic factors affected the probability of holding a particular portfolio. African American households preferred simpler portfolios that excluded stocks. The most distinctive shift in the distribution of portfolio types was away from other real estate and other valuable assets (e.g., trusts, estates, life insurance) to housing equity, and stocks and IRAs (from 25 percent of households in 1984 to 40 percent in 2001).

The authors reviewed transaction activity in separate time periods by considering transition matrices of portfolio size, of the frequency of household portfolio change, and of the most popular portfolio transitions. Age was important in making choices in the stock market before its slide in 2001, as household heads in the 58 to 80 age group were more likely to reduce their stock holdings (which could be explained in accordance with life-cycle models).

Caner and Wolff proposed a poverty measure and estimated the size and severity of asset poverty in the United States for various demographic and labor market groups using the PSID database for the period 1984 to 1999. Asset poverty was defined by the condition of a household whose access to wealth-type resources is insufficient to meet their basic needs for a limited period of time (three months). Caner and Wolff used three alternative wealth measures—net worth, net worth minus home equity, and liquid wealth—and adjusted the threshold for different family sizes and structures.

The official poverty rates were found to be significantly lower for nearly all groups. On average, asset poverty was two to four times as prevalent as income poverty. According to the net worth measure, a significant portion of the U.S. population in 1999—26 percent of all households—was in asset poverty. Home equity was the most widely held asset category, and it had a highly significant positive effect on the transition out of poverty for all study samples. Excluding home equity increased the poverty rate to 40 percent. About half of U.S. households had less than $5,000 in liquid assets and were unprotected against adverse shocks. The study also found that the rate of persistence of asset poverty was very high.

Asset poverty rates showed striking differences among racial/ethnic groups (e.g., blacks were more than twice as likely to be asset poor than whites) and poverty indices decreased as household age and education levels increased. Single female-headed families with children had the highest rate of asset poverty. There was no evidence that the black-white gap had narrowed over the study period.

The analysis showed that economic and financial developments benefited only a relatively small part of the U.S. population. Asset poverty rates did not decline, even in the long expansionary period of the late 1990s. Therefore, new government programs should be created and designed to provide incentives for the poor to accumulate assets.

Caner and Wolff recommended that poverty measures include wealth in order to better understand living standards in the United States. An innovation of the study was its investigation of the correlation between asset poverty transitions and major lifetime events (e.g., divorce, illness, inheritance, starting a new business).

Iams, as discussant, suggested the inclusion of Social Security benefits, defined benefit pensions, and defined contribution pensions in the concept of assets and wealth, since many individuals receive them and retirement modeling considers future wealth. He noted that defined contributions are available for loans, and portfolios are unequal as a result of risk (e.g., owning stocks). Iams also noted that birth cohort differences may reflect birth cohort and time period differences, such as structural changes in relationships (e.g., marital histories, employment opportunities) rather than aging. He recommended that the differences be accounted for more explicitly. He also recommended that the papers compare the same birth cohort at two points in time rather than use the longitudinal data as a series of cross sections, since this measure would give different results.

In terms of asset portfolio trends in the Stafford and Gouskova paper, Iams suggested investigating types of marketable assets, since categories are heterogenous and variable across subgroups. Over time, there is an increasing number of and persistence in types of assets, and a higher presence of stocks. Iams agreed that longitudinal studies using the PSID database are useful, but cautioned about measurement issues (e.g., spend down versus accumulation of income; missing data imputations make analyses of individuals difficult) and attrition selectivity (the population changes but the panel does not).

In terms of the Caner and Wolff study, Iams suspected that the same households stayed in asset poverty throughout the period of the study.

Do Workers with Low Lifetime Earnings Really Have Low Earnings Every Year? Implications for Social Security Reform

THOMAS L. HUNGERFORD
Working Paper No. 389, September 2003
www.levy.org/pubs/wp/389.pdf

Retirement income policy proposals presume that workers have 40-year careers and that low lifetime earners maintain low annual earnings throughout their careers. Research Director and Senior Scholar Thomas L. Hungerford studies workers with low average earnings and finds that most lifetime minimum wage earners are women who tend to work few years. He expects that many women will continue to have low average earnings in spite of the increase in the labor force participation rate among women. As a result, proposed changes to Social Security will adversely affect family retirement incomes.

The author outlines the characteristics of two retirement income sources: Defined Contribution (DC) pensions and Social Security. The major difference between the sources is the treatment of spouses. A nonworking spouse receives benefits from Social Security that increase total family retirement income, but payments from a DC pension would be based on earnings during a working career. Current proposals related to Social Security reform advocate individual Social Security accounts (annuity payments) in combination with lower Social Security benefits. Special provisions for low earners assume low and steady earnings for a period of 30 to 35 years.

Hungerford uses two datasets in his analysis of low earners: the Current Population Survey/Social Security Summary Earnings for the period 1951 to 1977, and the Panel Study of Income Dynamics for the period since its inception in 1968. He statistically matches the datasets to create a dataset of 786 individuals who were born between 1926 and 1934 and have 40 years of earnings.

Low- and minimum-wage workers are defined to have annual average indexed earnings (in 1999 dollars) between $7,500 and $18,750 (60 percent to 150 percent of the annual earnings of full-time minimum wage workers). He finds that in each earnings category, men, on average, have more years of earnings than women, and that the differences are confined to the first two decades of their working careers (between the ages of 22 and 41). Low-wage workers have lower average earnings because of fewer years of employment rather than a continuous working career of low earnings.

Hungerford compares the Depression-era birth cohort with their children (the early baby-boomer cohort from 1946 to 1954) during the second decade of their working careers, which is indicative of lifetime average earnings. The main difference between the cohorts is the distribution among the average earnings categories, especially for women: 17 percent of women in the Depression-era cohort were above the minimum wage average compared to almost half of the early baby-boomer cohort. The author notes that such factors as mortality, earnings requirements (10 years), and an inadequate representation of recent immigrants may have affected the comparative results of the analysis.

These findings have important implications for proposals to privatize a portion of Social Security, says Hungerford. A system of privatized accounts depends to a large extent on the earnings histories of both husband and wife and adversely affects family retirement incomes. Although most proposals include special provisions to protect low-wage workers with 30 to 35 years of income, many women cannot take full advantage of these provisions because they will not have worked enough years, so claims that these proposals will improve the protection of women may not be true. The author wonders why the president's Commission to Strengthen Social Security has not used the Social Security administration's microsimulation model to project the distributional impact of proposed reforms on future retirees.

Savings of Entrepreneurs

ASENA CANER

Working Paper No. 390, September 2003
www.levy.org/pubs/wp/390.pdf

Entrepreneurs are visualized as innovators who create employment and wealth, and who act as engines of economic growth. Business owners represent 12 percent of the population, while holding 20 percent of total income and 42 percent of total net worth. According to Research Scholar Asena Caner, there are few studies and no rigorous empirical analyses of the wealth accumulation rates or saving behavior of entrepreneurs. It is important to understand the role of entrepreneurs in the accumulation of household wealth in order to build realistic models of consumption and saving and to make informed policy decisions, says Caner.

The author's study verifies previous findings that entrepreneurial households have higher wealth and higher wealth-to-income ratios. It also confirms that the portfolio compositions of entrepreneurial households are very different from other households. A new finding suggests that entrepreneurial households save more out of family income and that their decision to own a business is endogenous to the saving rate and the rate of capital gains on wealth. There is no evidence to support previous claims by researchers that households save more in order to overcome liquidity constraints prior to the establishment of a business, or that entrepreneurial households receive more inheritances or higher rates of return on wealth.

The author decomposes the change in household wealth into active and passive wealth changes using U.S. household data from the Panel Study of Income Dynamics for 1984, 1989, and 1994. The active saving component is the actual purchase of assets, whereas the passive saving component is the capital gains. To compute savings out of family income, savings that originate from outside the family (e.g., inheritances, cashed-in annuities, wealth changes due to changes in family composition) are subtracted from active savings.

Caner defines "entrepreneur" to mean someone who owns a business rather than someone who is self-employed, and finds that the heads of entrepreneurial households are mainly white, middle-aged, and relatively more educated. The author analyzes the components of saving, identifies representative samples of various business ownership households, and considers the effect of business ownership on the saving and wealth accumulation rates.

The author shows that business ownership influences the saving and wealth accumulation rates. Households starting a business experienced the highest rate of increase in mean wealth along with a relatively high saving rate, while households terminating a business experienced capital losses and negative savings. Continuous business ownership had the highest saving rate and a high increase in wealth, but there were capital losses. Therefore, there is no strong evidence supporting the hypothesis that business owners have higher rates of return on their capital assets. The results also contrasted with the hypothesis that business owners experience greater increases in wealth than other households. There is support, however, for the hypothesis that business owners save more out of their family income than other households (after controlling for household characteristics, income, income variability, and initial wealth).

A problem with previous studies is that there has been no attempt to account for the endogeneity between the decision to start a business and the decision to save. In this study, the author uses an econometric technique to analyze the possibility that the decision to start a business is endogenous to the decision to save. While she finds that investment in business assets is an important aspect of saving for business-owner households, she fails to find a link between saving and the likelihood of starting a business. Contrary to previous studies, households do not save more to become business owners, but business-owner households save more.

A Rolling Tide: Changes in the Distribution of Wealth in the U.S., 1989–2001

ARTHUR B. KENNICKELL

Working Paper No. 393, November 2003

www.levy.org/pubs/wp/393.pdf

A summary of this working paper appears in the write-up for the conference on international perspectives on household wealth, session 1.

Wealth Transfer Taxation: A Survey

HELMUTH CREMER and PIERRE PESTIEAU

Working Paper No. 394, November 2003

www.levy.org/pubs/wp/394.pdf

A summary of this working paper appears in the write-up for the conference on international perspectives on household wealth, session 6.

On Household Wealth Trends in Sweden over the 1990s

N. ANDERS KLEVMARKEN

Working Paper No. 395, November 2003

www.levy.org/pubs/wp/395.pdf

A summary of this working paper appears in the write-up for the conference on international perspectives on household wealth, session 2.

The Evolution of Wealth Inequality in Canada, 1984–1999

RENÉ MORISSETTE, XUELIN ZHANG, and MARIE DROLET

Working Paper No. 396, November 2003

www.levy.org/pubs/wp/396.pdf

A summary of this working paper appears in the write-up for the conference on international perspectives on household wealth, session 4.

Program: Financial Markets and Monetary Policy

Inflation Targeting: A Critical Appraisal

PHILIP ARESTIS and MALCOLM SAWYER

Working Paper No. 388, September 2003

www.levy.org/pubs/wp/388.pdf

Since 1990, inflation targeting has been adopted by a number of countries as a central tenet of economic policy. According to Institute Professor Philip Arestis and Senior Scholar Malcolm Sawyer of the University of Leeds, inflation targeting is a major policy prescription that is closely associated with "new consensus" macroeconomics, but there are serious problems with it. The authors identify a number of weaknesses associated with inflation targeting and conclude that its apparent success, as enthusiastically endorsed by its proponents, is not supported theoretically or empirically.

Arestis and Sawyer analyze the new consensus model and review the theoretical foundations, transmission mechanisms, and empirical studies of inflation targeting. They find that inflation targeting includes the setting of a target for the rate of (price) inflation by the government, using monetary policy as the key policy instrument to achieve the target, and conducting monetary policy through an independent central bank. It excludes the effects of monetary policy on other policy objectives, such as unemployment.

A key element of inflation targeting is that it is a monetary policy framework with a focus on price stability in association with credibility, flexibility, and legitimacy. The authors outline a number of shortcomings concerning inflation targeting: it cannot have a permanent effect on the level of economic activity; and it cannot cure the effects of imbalances (e.g., asset prices, debt bubbles) that may occur in deregulated financial markets. Other shortcomings are that monetary policy by committee is inefficient and that adopting a nominal anchor, such as an inflation target, leaves little room to stabilize output. Thus, inflation targeting cannot achieve its objectives. Although inflation targeting in the 1990s has been more successful than money supply targeting in the early 1980s, the authors observe that central banks not using inflation targeting have been equally successful in taming inflation.

The authors further observe that inflation forecasting is an additional key element of inflation targeting, but there is a large margin of error that can damage the credibility of the central bank. Therefore, inflation targeting is a major and dangerous challenge—especially so when inflation is of the cost-push variety, since then a central bank has no control over the factors that affect inflation, such as oil prices, exchange rate fluctuations, wages, and taxes. Another issue is the desirability of low inflation in the context of inflation targeting. There is the ruthless pursuit of price stability at the expense of economic growth and well-being, say the authors.

A significant question is whether interest rates have lasting effects on the supply side of the economy by affecting aggregate demand. The authors note that the effects of a change in interest rates are greater on investment than other components of demand. They also note that estimates of the nonaccelerating inflation rate of unemployment (NAIRU) and the nonaccelerating wage rate of unemployment vary over time and differ across countries.

The new consensus view is that inflation can be tamed through interest rate policy (using demand deflation). This view of inflation raises three issues: (1) the effectiveness of monetary policy to influence aggregate demand and inflation (it is ineffectual, say the authors); (2) the most effective way to influence aggregate demand if inflation is a demand phenomenon (the best way is not monetary policy, say the authors, and fiscal policy is an alternative, and more effective, policy instrument); and (3) the dismissal of other causes of inflation, such as cost-push considerations. A consequence not mentioned in the inflation targeting model is that interest rates may be regarded as a cost to firms, leading to higher prices.

Arestis and Sawyer attempt to analyze the effects of the six transmission mechanisms of inflation targeting and find difficulty in isolating their individual effects: they are not mutually exclusive, the link between monetary policy and the real economy changes over time, and there is simultaneity (the endogenous response of policy to economic conditions).

The authors review the empirical evidence of studies based on macroeconomic models and on single-equation techniques. The evidence is not convincing that inflation targeting improves inflation and policy credibility, or that countries would improve their monetary policy by adopting inflation targeting. Some countries tamed inflation either prior to introducing inflation targeting or through policies other than inflation targeting, note the authors, and there is no evidence that inflation targeting improves economic performance, as measured by inflation, output, and interest rates.

This working paper extends the authors' research of monetary and fiscal policy as outlined in a number of Levy Institute working papers (e.g., *see* Working Paper nos. 355, 369, 374, and 382).

Aggregate Demand, Conflict, and Capacity in the Inflationary Process

PHILIP ARESTIS and MALCOLM SAWYER
Working Paper No. 391, September 2003
www.levy.org/pubs/wp/391.pdf

A popular view of the relationship between inflation and unemployment is that inflation is constant at the nonaccelerating inflation rate of unemployment (NAIRU), which is determined by the supply side of the economy (i.e., the labor market), and that the economy fluctuates around the NAIRU level of unemployment. According to Institute Professor Philip Arestis and Senior Scholar Malcolm Sawyer of the University of Leeds, there are no automatic forces leading to a level of aggregate demand consistent with constant inflation. Supply-side constraints arise from capacity constraints rather than the labor market, and productive capacity and investment play significant roles in the level of inflation.

The authors outline four key elements of the "structuralist" view of inflation: (1) a set of inflationary pressures comes from the level of demand relative to the size of productive capacity (it is assumed that enterprises operate subject to constant average direct costs and excess capacity, so economic expansions can occur without rising costs); (2) a second set of inflationary pressures comes from the conflict over the distribution of income (the difference between the rate of increase of wages and prices equals the growth rate of labor productivity); (3) the level of economic activity depends on the level of aggregate demand (and does not necessarily generate full employment or full capacity utilization), and investment affects aggregate demand and the capital stock; and (4) money is endogenous credit created by the banking system and creates loans and supports aggregate demand.

The "inflation barrier" is the level of economic activity where inflation is constant (a supply-side equilibrium involving real wages and employment). If aggregate demand pushes economic activity above the inflation barrier, then inflation rises. The authors note some important differences between the inflation barrier and the NAIRU, and conclude that the labor market is not a major determinant of the inflation barrier. Aggregate demand does not adjust to the inflation barrier—it influences the rate of investment, changes the capital stock, and affects productive capacity through the supply side (and the inflation barrier changes with the level of investment).

The authors model the structuralist view of inflation. The model consists of a wage equation, a price equation, and an investment relationship. The wage equation reflects the target real-wage hypothesis, which is based on a collective bargaining view of wage determination. The price equation is considered at the enterprise and aggregate levels. The intersection of the wage and price equations represents the inflation barrier. The investment relationship includes factors such as profitability and capacity utilization; is sensitive to the level of aggregate demand, which is derived by equating savings and investment; and excludes the optimization of capital stock by relative prices. Aggregate demand is important because it determines the level of economic activity (which may affect the rate of inflation) and influences the rate of investment and real wages.

The analysis reveals four propositions: (1) the inflation barrier depends on the size and composition of the capital stock; (2) a larger capital stock permits a higher level of aggregate demand (and employment) without rising inflation; (3) investment depends on capacity utilization and profitability, which are related to aggregate demand; and (4) changes in labor market flexibility (e.g., variations in wage differentials) have little effect on the inflation barrier.

Arestis and Sawyer investigate the empirical validity of their propositions in terms of the relationship between the capital stock and unemployment, the determinants of investment, and labor market flexibility. They find that the decline in unemployment in the United Kingdom, the United States, and Canada during the 1990s occurred without rising inflation, and argue that the decline was the result of a boom in investment. They also find a clear mechanism through which the level of employment is reflected in the NAIRU; that financial factors are crucial determinants of investment; that capacity utilization and output have the strongest effects on aggregate investment (the effects of user costs are modest); and labor market reforms (e.g., deregulation) do not significantly impact the NAIRU.

The authors find it implausible that variations in unemployment among regions of a country can be explained by variations in labor market characteristics. Rather, differences in unemployment arise from variations in industrial structure, productive capacity, and aggregate demand. Flexibility in the labor market does not have the vital role attached to it by proponents of the NAIRU hypothesis. The authors note that the inflation barrier readily explains differences in regional unemployment in terms of capacity and of the demand for a region's products.

A review of inflation and unemployment in various countries in the 1990s shows that estimates of the NAIRU tend to track unemployment rates. Canada, the United Kingdom, and the United States experienced high investment growth rates along with declining unemployment and inflation, while France and Germany experienced low investment growth rates along with rising unemployment and declining inflation.

Program: Federal Budget Policy

Deflation Worries

L. RANDALL WRAY
Policy Note 2003/5
www.levy.org/pubs/pn/03-5.pdf

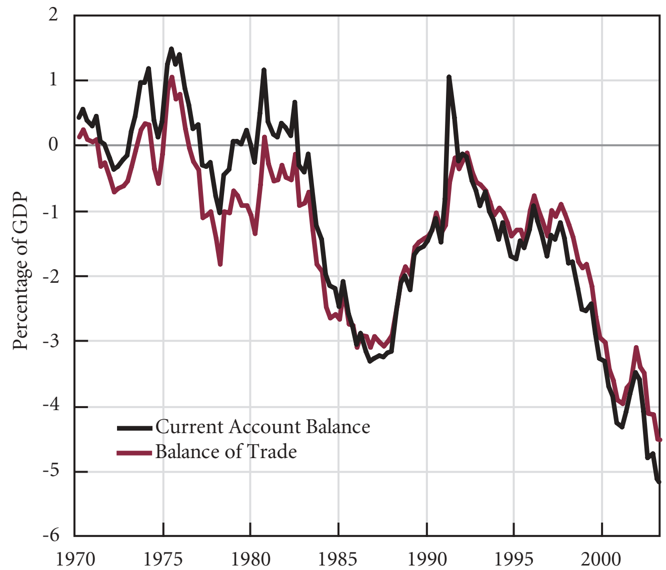
Deflation is the downward pressure on prices due, mostly, to insufficient aggregate demand. According to Senior Scholar L. Randall Wray of the Center for Full Employment and Price Stability at the University of Missouri–Kansas City, budget surpluses in the United States (and "fiscal responsibility" in much of the rest of the world) have generated deflationary pressures. He proposes that U.S. policymakers increase government deficits to at least 7 percent of GDP to restore robust economic growth, and move the long-term (full employment) structural budget to a deficit of 3–4 percent of GDP.

Wray points out that the dangers of deflation are real and already present: American household net worth has fallen sharply, indebtedness has reached new heights, monetary policy has little power left, there is danger that real estate asset prices will fall, unemployment is rising and wages are stagnating, and GDP growth is well under potential. As a result, policymakers' success in reducing inflation has been replaced with concerns about deflation, but there are no effective policies to relieve deflationary pressures. In euroland, the solution—market reform and fiscal constraint—is misguided, says Wray. Likewise, the Fed appears to have no inkling of what needs to be done and has proposed "pumping money" into the economy, buying long-term bonds if necessary. This approach simply leads to excess reserve positions, pushes the federal funds rate to zero (as in Japan), and is not sufficient to stop deflation.

Sovereign nations that issue their own floating currency can use fiscal policy to raise demand, without worrying about balancing budgets. Ironically, notes the author, Argentina seems to be emerging from its economic crisis with a sensible policy. Its president proposes that Argentina spend its way out of recession and bankruptcy (e.g., public works projects), which is now feasible since the country has dropped the dollar peg.

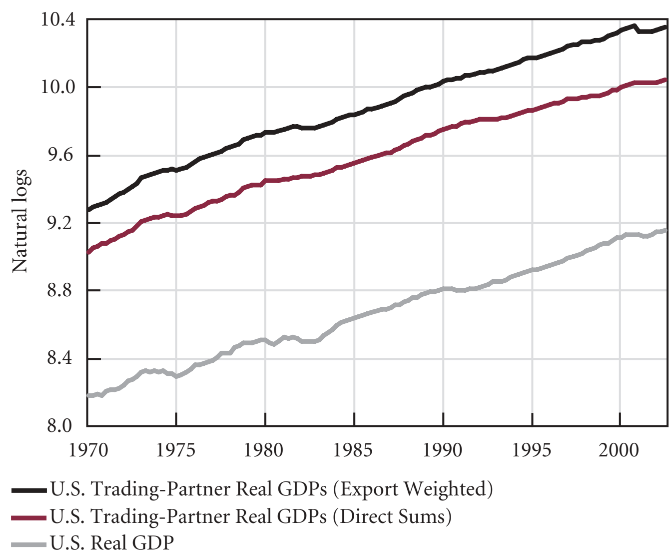
Much of the responsibility for restoring world economic growth rests on the shoulders of the U.S. federal government. It is not a burden for the federal government to spend its way to economic prosperity, says Wray. All that is required is the will to put unemployed resources back to work.

Figure 1 U.S. Current Account and Trade Balances



Source: BEA

Figure 2 U.S. and Trading-Partner Real GDPs



Sources: BEA and authors' calculations

Is International Growth the Way Out of U.S. Current Account Deficits? A Note of Caution

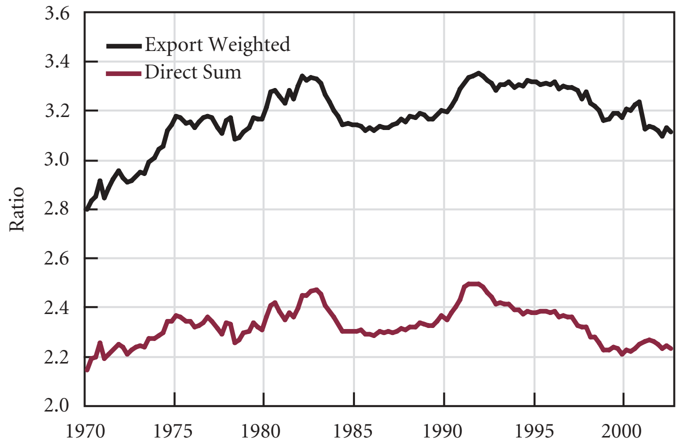
ANWAR M. SHAIKH, GENNARO ZEZZA, and CLAUDIO H. DOS SANTOS

Policy Note 2003/6

www.levy.org/pubs/pn/03-6.pdf

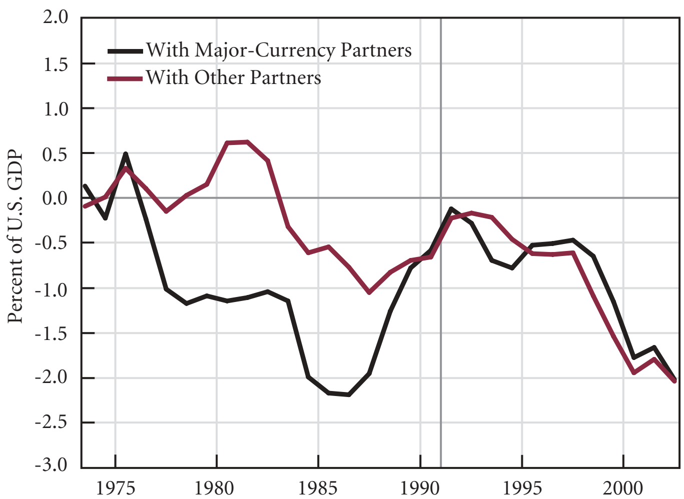
When a country grows faster than its trading partners or when its real exchange rate appreciates, imports tend to expand more rapidly than exports and the trade balance deteriorates. The principal force behind the deterioration of the U.S. current account deficit is the balance of trade (*see* Figure 1). Senior Scholar Anwar M. Shaikh of New School University and Research Scholars Gennaro Zezza of the University of Cassino, Italy, and Claudio H. Dos Santos, construct a database for U.S. trading partners using the Federal Reserve's Broad Index of the Foreign Exchange Value of the Dollar and the International Monetary Fund's International Financial Statistics. They present newly developed measures of the real GDP of U.S. trading partners that help to explain the steady deterioration of the U.S. balance of trade.

Figure 3 U.S. and Trading-Partner Real GDPs Relative to U.S. Real GDP



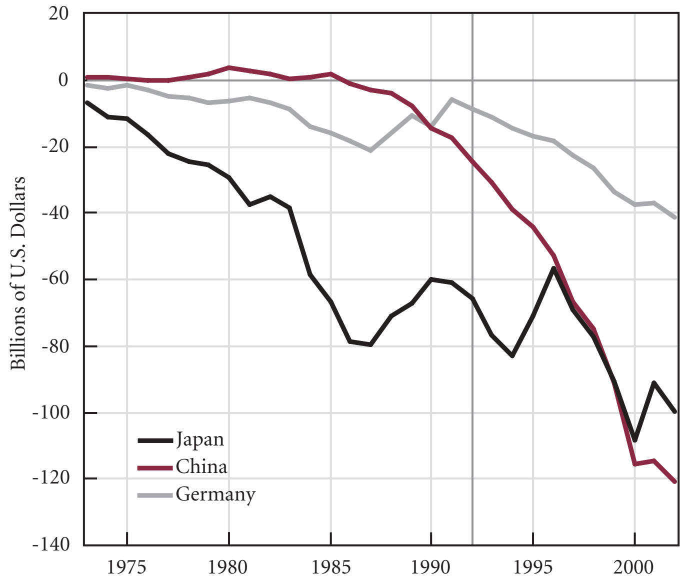
Sources: BEA and authors' calculations

Figure 4 U.S. Trade Balance with Major-Currency and Other Important Trading Partners



Sources: Authors' calculations

Figure 5 U.S. Balance of Trade with each of the Three Main Contributors to the U.S. Trade Deficit



Sources: Authors' calculations

The database encompasses consistent real GDP quarterly figures for 37 countries for the period from 1970 to 2002. It presents two basic aggregates—direct and export-share-weighted sums of the real GDPs—and various subdivisions (e.g., "major" and "other important" trading partners). The authors find that U.S. trading partners constitute an economic "region" between two and a half times as large (direct sum) and three and a half times as large (weighted-average sum) as the United States (*see* Figure 2). The relatively slow growth in U.S. trading-partner real GDP since 1992 has been cited to explain the sharp deterioration of the U.S. trade balance, but the authors' data reveals a more complex pattern (*see* Figure 3). While the United States grew more rapidly than its "major" trading partners, which led to an expected deteriorating trade deficit, it also grew more slowly than its "other important" trading partners, but its trade balance deteriorated to an almost identical degree (*see* Figure 4). A similar problem arises when considering the three countries (Japan, China, and Germany) that account for the bulk of the U.S. trade deficit. The United States grew more rapidly than Japan and Germany, and considerably less rapidly than China, but the U.S. trade deficit worsened with all three countries (*see* Figure 5).

Additional findings of this ongoing project will be available in forthcoming Levy Institute policy notes and working papers.

Measures of the Real GDP of U.S. Trading Partners: Methodology and Results

CLAUDIO H. DOS SANTOS, ANWAR M. SHAIKH, and GENNARO ZEZZA
Working Paper No. 387, September 2003
www.levy.org/pubs/wp/387.pdf

This working paper by Senior Scholar Anwar M. Shaikh of New School University and Research Scholars Gennaro Zezza of the University of Cassino, Italy, and Claudio H. Dos Santos provides a detailed explanation of the methodology used to generate quarterly data of the real GDP of U.S. trading partners for The Levy Economics Institute macroeconomic model. The authors' data sources and initial results are presented in Policy Note 2003/6.

The authors supplement the 36 U.S. trading partners included in the Federal Reserve's database with data on Denmark, to facilitate future analysis of the European Community. They note that their database has three important advantages: (1) it allows the construction of income aggregates and subaggregates from which to discuss the geographical and geopolitical determinants of U.S. trade; (2) it allows the construction of direct and export-share-weighted sums of the real GDPs of U.S. trading partners, which are consistent with the Federal Reserve exchange rate indexes, and (3) it allows the construction of price series consistent with various real income measures. The database also allows the authors to choose the level of aggregation that is most effective in producing robust medium-term projections of the impact of foreign income growth on U.S. exports.

The authors use different methodologies to measure the real GDP of U.S. trading partners: the direct-sum measure and various export-share-weighted measures (fixed-, variable-, and spliced-weight measures). They find that the fixed- and spliced-weight measures behave in a similar fashion—the impact of changes in weight is relatively small. The variable-weight measure, however, displays a much slower overall rate of growth and higher volatility. The direct-sum measure generally grows more slowly than the fixed- and spliced-weight measures.

Correlations between the growth rates of the various measures and U.S. real exports show that, at a visual level, the fixed-weight measures appear to be the best. However, the spliced-weight measure is the best empirically (the variable-weight measures performed the worst). The authors were encouraged by the relatively high correlation between trading partner real GDPs and U.S. real exports, but note that income measures having the best direct correlation with exports are inadequate and misleading. Rather, the objective is to enable income to explain exports in light of the movement of relative prices.

The authors compare various income measures in a general representation of the growth form of the export equation. They find that the equation has a low explanatory power, with mixed results. A best fit indicator, such as R^2, the sample variance, suggests that fixed-weight measures are better than the spliced-weight measure, whereas, in terms of forecast accuracy, the spliced-weight measure is comparable (the variable-weight and direct-sum measures are far behind). The fixed- and variable-weight measures were the most robust. The authors intend to further explore this issue in a forthcoming working paper on the balance of trade deficit.

Understanding Deflation: Treating the Disease, Not the Symptoms

L. RANDALL WRAY and DIMITRI B. PAPADIMITRIOU
Working Paper No. 392, October 2003
www.levy.org/pubs/wp/392.pdf

Several of the New Deal programs in the 1930s were unsuccessful in improving the U.S. economy because they treated the symptoms (wage and price declines) rather than the underlying disease (insufficient demand). Demand was subsequently restored through direct employment and income support (e.g., Social Security) programs. According to Senior Scholar L. Randall Wray and President Dimitri B. Papadimitriou, the most important contributing factor to insufficient demand in the United States today is excessively tight federal government budgets that began with the balanced budget initiatives at the end of the 1980s. The current danger is asset price deflation, they say, which could set off a classic Minsky-Fisher debt deflation spiral.

The authors note that, when designing and implementing public policy, it is important to understand deflation as a symptom of severe and chronic economic problems. They review monetary and fiscal policy in the United States, including the Gramm-Rudman-Hollings Act of 1986, which has been a fiscal drag on the economy and has generated large and rising fiscal surpluses. The current structural fiscal stance combined with an external negative trade balance requires the private sector to run deficits in order to produce moderate economic growth. Since private sector deficits are rare, the authors outline a scenario that is currently under way: a return to typical private sector surpluses would generate massive layoffs as firms reduce production to match falling demand and tax revenues fall when all levels of government need to increase spending. Thus, very large government deficits would be restored. The authors suggest that the economy could limp along under the auspices of a "growth recession" or that there could be a "double-dip" recession.

The authors acknowledge that it is not clear that deflation is always a problem, but debt plays an important role in determining whether a firm can cope with falling output prices. A major concern of analysts today is deflation similar to that of the 1930s, when asset prices fell dramatically (e.g., equities, farms) and declining sales prices and wages made it impossible to cover private service debt. Furthermore, recent attempts to balance budgets might aggravate the problem.

According to Minsky, "big government capitalism" is a large countercyclical force that creates a floor when private demand (i.e., investment spending) falls. This force, combined with intervention by the Fed as a lender of last resort, has banished great depressions and debt deflations for the past six decades. However, the absence of debt deflation has encouraged increasingly fragile financial positions, so debt deflation could happen again.

The authors outline a number of current events that support the likelihood of the worst-case scenario—debt deflation. The federal government has been downsized, the demand gap is nearly 3 percentage points, and there has been a chronic and growing trade deficit. The tendency for budget surpluses and trade deficits creates an aggregate demand "leakage" of 6–7 percent of GDP when the economy grows robustly. The leakage is balanced by private sector spending in excess of income by households and firms. Firms are more exposed to prices of imports produced in low-cost developing nations, which makes debt servicing more precarious, and there has been an acceleration in the growth of private indebtedness. The bursting of the Wall Street bubble and defaults of defined benefit plans are forcing firms to set aside more cash for pension plans, which forces firms to cut costs elsewhere, adding to the deflationary pressures.

According to the authors, the financial position of state budgets is the worst since the Great Depression, and today's economy is much more fragile than it was during the savings and loan crisis in the 1980s. Potential crises include the entire mortgage-backed securities market and the Pension Benefit Guaranty Corporation.

The authors recommend a discretionary federal government stimulus package, which includes a temporary broad-based tax cut (i.e., a payroll tax cut and a refundable tax credit to allay concerns about Social Security revenues) that would boost household incomes without curtailing consumption. The package also includes a permanent employer tax credit to reduce costs and encourage employment, and increases in the federal government's emergency provisions to states and in public infrastructure investment.

INSTITUTE NEWS

Upcoming Event

14th Annual Hyman P. Minsky Conference

April 23–24, 2004
Blithewood
Annandale-on-Hudson, New York

Registration and program information will be posted on the website as it becomes available.

Publications and Presentations by Levy Institute Scholars

PHILIP ARESTIS *Institute Professor of Economics*

Publications: "European Integration and the 'Euro Project'" (with M. C. Sawyer), in J. Michie, ed., *The Handbook of Globalisation*, Cheltenham: Edward Elgar Publishing Limited, 2003; "Critical Realism and the Political Economy of the Euro" (with A. Brown and M. C. Sawyer), in P. Downward, ed., *Applied Economics and the Critical Realist Critique*, London: Routledge, Taylor and Francis Group, 2003; "O euro e a UME: lições para o Mercosul" (with Fernando Ferrari-Filho, Luiz Fernando de Paula, and M. C. Sawyer) *Economia e Sociedade*, Vol. 12, No. 1, June 2003; edited and wrote the introduction (with Georgios Chortareas, Bank of England) in a special issue, "Transparency in Monetary Policy," *Manchester School of Economic and Social Research*, Vol. 71, No. 5, September 2003; "Reinventing Fiscal Policy" (with M. C. Sawyer), *Journal of Post Keynesian Economics*, Vol. 26, No. 1, Fall 2003.

Presentations: "Aggregate Demand, Conflict, and Capacity in the Inflationary Process" (with M. C. Sawyer), Economics for the Future conference, University of Cambridge, September 17–19; "Reinventing Fiscal Policy" (with M. C. Sawyer), 7th International Workshop on Finanzpolitik in der Kontroverse, Berlin, Germany, October 24–25; "Macroeconomic Policies of the Economic and Monetary Union: Theoretical Underpinnings and Challenges," University of Utah, November 7, and University of Denver, November 10.

WALTER M. CADETTE *Senior Scholar*

Presentation: "The U.S. Budget Problem," Central Bank of Argentina, Buenos Aires, Argentina, October 28.

ASENA CANER *Research Scholar*

Presentation: "Asset Poverty in the United States: Evidence from the Panel Study of Income Dynamics, 1984–1999" (with E. N. Wolff), Levy Institute conference on International Perspectives on Household Wealth, Annandale-on-Hudson, New York, October 17–18.

JAMES K. GALBRAITH *Senior Scholar*

Publications: "A Taste of Texas," *Texas Observer*, June 6; "Socking It to the States," *The Nation*, June 9; book review, "Working Within the System," of *The Soul of Capitalism* by William Greider, in the *Washington Post Book World*, August 31; book review, *Rich Democracies: Political Economy, Public Policy and Performance* by Harold L. Wilensky, in the *Journal of Economic Literature*, XLI, 3, September; "The Iraqi Quagmire," *Texas Observer*, September; "Why Bush Likes a Bad Economy," *The Progressive*, October; "Military Expenditures and Inequality: Empirical Evidence from Global Data" (with Hamid E. Ali), UTIP Working Paper No. 24, October 10; "Unemployment in Europe: A Theoretical and Regional Analysis" (with Enrique Garcilazo), UTIP Working Paper No. 25, October 21; "Doubting Out Loud," *Texas Observer*, October 24; "Exit Strategy," *Boston Review*, Vol. 28, No. 5, October–November, 2003; "The Evolving Economics of War and Peace," *Encyclopedia of Life Support Systems*, UNESCO, http://www.eolss.net/E6-28A-toc.aspx, 2003.

Presentations: "An Economy That Works for Working People," panel at Take Back America conference, Washington, D.C., June 5; "Economics in Time of War and Empire," plenary speaker at the International Confederation of Associations of Pluralist Economists, Kansas City, June 6; "Economics in War-Time," first meeting of the International Confederation of Associations for Pluralism in Economics, Kansas City, June 7; "A Program for Liberals," Americans for Democratic Action, board meeting, June 28; "An Economic Program for Progressives," Milton S. Eisenhower Foundation, June 30; keynote lecture, "America and the European Social Model," Summer Institute on Alternative Economic Policy in Europe, University of Gottingen, Germany, July 22; "Economists and War," American Agricultural Economics Association annual meeting, Montreal, Canada, July 28; "Military Expenditures and Inequality: Empirical Evidence from Global Data"(with Hamid E. Ali), Association for Budgeting and Financial Management annual meeting, Washington, D.C., September 19; "Global Inequality and Global Policy," Catholic Social Thought and Globalization conference, Villanova University, November 7; "Regional Inequality and the Information Bubble"(with Travis Hale), APPAM annual meetings, Washington, D.C., November 8.

DIMITRI B. PAPADIMITRIOU *President*

Publication: "The State of the U.S. Economy," *Analyst*, The Institute of Chartered Financial Analysts of India, December 2003.

Presentations: Radio interview, *Streettalk Live* with host Lance Roberts, Business Radio 650, Houston, November 12; "Government Deficits and Growth," Center for Full Employment and Price Stability conference, University of Missouri, Kansas City, November 17; radio interview with host Mike Norman, Business America Radio, November 19.

MALCOLM SAWYER *Senior Scholar*

Publications: "European Integration and the 'Euro Project'" (with P. Arestis), in J. Michie, ed., *The Handbook of Globalisation*, Cheltenham: Edward Elgar Publishing Limited, 2003; "Critical Realism and the Political Economy of the Euro" (with P. Arestis and A. Brown), in P. Downward, ed., *Applied Economics and the Critical Realist Critique*, London: Routledge, Taylor and Francis Group, 2003; "O euro e a UME: lições para o Mercosul" (with P. Arestis, Fernando Ferrari-Filho, Luiz Fernando de Paula) *Economia e Sociedade*, Vol. 12, No. 1, June 2003; "Reinventing Fiscal Policy" (with P. Arestis), *Journal of Post Keynesian Economics*, Vol. 26, No. 1, Fall 2003.

Presentations: "Aggregate Demand, Conflict, and Capacity in the Inflationary Process" (with P. Arestis), Economics for the Future conference, University of Cambridge, September 17–19; "Reinventing Fiscal Policy" (with P. Arestis), 7th International Workshop on Finanzpolitik in der Kontroverse, Berlin, Germany, October 24–25; "Monetary Policies in the Eurosystem and Alternatives for Full Employment" and "Macroeconomic Policies of the Economic and Monetary Union: Theoretical Underpinnings and Challenges," EAEPE Annual Conference, Maastricht, Netherlands, November 7–9; "Can Monetary Policy Affect the Real Economy?" and "Unemployment, Inflation, and Money," Seminar on Income Distribution and Monetary Policy, National Autonomous University of Mexico (UNAM), Mexico City, Mexico, November 11–14.

EDWARD N. WOLFF *Senior Scholar*

Publications: "The Devolution of the American Pension System: Who Gained and Who Lost?" *Eastern Economics Journal*, Vol. 29, No. 4, Fall 2003; "The Levy Institute Measure of Economic Well-Being" (with A. Zacharias), *Indicators: A Journal of Social Health*, Vol. 2, No. 4, Fall 2003.

Presentations: *Biznet*, ABC television, New York, June 29; Mich Otto, KTAR Radio, Phoenix, Arizona, September 29; "The Transformation of the American Pension System," CUNY Graduate Center, Economics Department, September 30; *CNN Money Morning* with Kathleen Hayes, October 2; *WHAM Morning News* with Chet Walker, October 3; "The Devolution of the American Pension System," Russell Sage Foundation, October 15; "Asset Poverty in the United States: Evidence from the Panel Study of Income Dynamics, 1984–1999" (with A. Caner), Levy Institute conference on International Perspectives on Household Wealth, Annandale-on-Hudson, New York, October 17–18; *Bernie Sanders Show*, WDEV, Vermont, November 3.

L. RANDALL WRAY *Senior Scholar*

Publications: "Surplus Mania: A Reality Check," *Macroeconomics*, Don Cole, ed., 14th edition, chapter 12, McGraw-Hill/Dushkin, 2002/2003; "Seigniorage or Sovereignty?", in *Modern Theories of Money*, Louis-Phillip Rochon and Sergio Rossi, eds., Cheltenham: Edward Elgar Publishing Limited, 2003; *Trabalho e Moeda Hoje: a chave para o pleno emprego e a estabilidade dos precos*, Portuguese language edition of *Understanding Modern Money: The Key to Full Employment and Price Stability*, Editora UFRJ/Contraponto, 2003; "Social Security: Truth or Convenient Fictions?" and "Monetary Policy: An Institutionalist Approach," in *Institutional Analysis and Economic Policy*, Marc Tool and Paul Bush, eds., Kluwer Academic Publishers, 2003; "The Neo-Chartalist Approach to Money," in *The State, the Euro, and the Market*, Stephanie Bell and Edward Nell, eds., Cheltenham: Edward Elgar Publishing Limited, 2003; "Financial Instability," in *An Encyclopedia of Macroeconomics*, Howard Vane and Brian Snowdon, eds., Cheltenham: Edward Elgar Publishing Limited, 2003; "Money," in *The Elgar Companion to Post-Keynesian Economics*, John King, ed., Cheltenham: Edward Elgar Publishing Limited, 2003; "A History of Post-Keynesian Economics since 1936," book review in the *Journal of Economic Literature*, September 2003; "Deflation Worries," *Chartered Financial Analyst*, July, 2003; "The Post-Keynesian Approach to Money" (in French), in *Theories Monetaires post Keynesiennes*, Pierre Piégay and Louis-Philippe Rochon, eds., Paris: *Economica,* 2003; "Functional

Finance and U.S. Government Budget Surpluses in the New Millennium," in *Reinventing Functional Finance: Transformational Growth and Full Employment,* Edward Nell and Mat Forstater, eds., Cheltenham: Edward Elgar Publishing Limited.

Presentations: "Is Euroland the Next Argentina?" University of Bergamo, Italy, June 24; "Currency Sovereignty and the Possibility of Full Employment," Buenos Aires, Argentina, 6th Congres o Nacional de Estudios del Trabajo, August 14; Argentinean Ministry of Finance and Labor (with Pavlina Tcherneva), August 13–15; press conference with Istanbul mayor (with Pavlina Tcherneva and Mathew Forstater), about a collaborative study of policy to create jobs, Istanbul, Turkey, November 3.

AJIT ZACHARIAS *Research Scholar*

Publication: "The Levy Institute Measure of Economic Well-Being" (with E. N. Wolff), *Indicators: A Journal of Social Health,* Vol. 2, No.4, Fall 2003.

Presentations: "Household Wealth, Public Consumption, and Economic Well-Being in the United States," Economics for the Future conference organized by the *Cambridge Journal of Economics*, Cambridge, U.K., September 17–19; "Gender-Sensitive Statistics: Lessons from the United States," IV Encuentro Internacional de Estadistica y Politicas Públicas Sensibles al Género en el Marco de las Metas del Milenio, conference organized by the UNIFEM, INMujeres (Mexico) and INEGI (Mexico), Aguscalientes, Ags., Mexico, November 3–5.

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