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To our readers:

This issue of the Summary includes activities in three research programs and other projects. In working papers in the program on employment policy and labor market structure, Resident Scholar Oren M. Levin-Waldman discusses the history of the minimum wage, and Pedro Conceição and Senior Scholar James K. Galbraith, both of the University of Texas at Austin, describe a method of studying the dynamics of inequality that uses the Theil index. Three scholars conducted seminars: James Rebitzer, of the Weatherhead School of Management of Case Western Reserve University, on his field experiment on employee behavior; Senior Scholar Joel Perlmann on the gender distribution of teachers in antebellum America; and Michael Handel, of Harvard University, on the effects of computerization on the wage structure.

In the program on financial markets and monetary policy are two papers by Senior Scholar L. Randall Wray, one on an institutionalist interpretation of the history and function of money and one on the 1966 credit crunch as an example of Minskian instability. Resident Scholar Jamee K. Moudud investigates the impacts of fiscal policy using the classical growth and cycles model he has developed. Research Associate Willem Thorbecke, of George Mason University, applies several methods to compile evidence on the distributional effects of disinflationary monetary policy.

The program on federal budget policy is represented by three policy notes: Wray describes three threats to the current economic expansion; Distinguished Scholar Wynne Godley and Bill Martin, of Phillips & Drew, warn that the current pattern of U.S. spending financed by borrowing cannot be sustained; and Wray criticizes the president's Social Security proposal.

Activities in other projects include a working paper on the role of value theory in Keynes's monetary theory of production by Wray and a working paper on the history of European economic and monetary integration by Visiting Senior Scholar Philip Arestis, of the University of East London, Kevin McCauley, also of the University of East London, and Visiting Senior Scholar Malcolm Sawyer, of the University of Leeds. There was also a seminar on multilateralism and U.S. trade policy by Cambridge University Visiting Scholar James N. Miller.

As always, I invite your comments.
The Minimum Wage in Historical Perspective: Progressive Reformers and the Constitutional Jurisprudence of "Liberty of Contract"

Oren M. Levin-Waldman

Today's minimum wage debates often pit those who believe that a minimum wage hike will reduce poverty against those who believe it will increase unemployment among youths. However, in the decades leading up to the establishment of the national minimum wage, the debate was framed in terms of "efficiency-wage" benefits versus the right of "liberty of contract." Resident Scholar Oren M. Levin-Waldman examines the early legislative and judicial history of the minimum wage and concludes that efficiency-wage arguments, although they embodied ideas that were consistent with Progressive movement principles, were primarily used as means to circumvent the liberty of contract doctrine in the courts.

According to Levin-Waldman, the courts frequently struck down state laws regulating employment as violating the legal doctrine of liberty of contract. They interpreted the doctrine to mean that employers and employees, as free and equal individuals before the law, are both at liberty to enter into a contractual relationship with one another regarding wages, hours, and working conditions, and states cannot pass legislation abridging that liberty unless a compelling case can be made that there are "real and substantial" public benefits to doing so. Although neither the doctrine of individualism nor of laissez-faire is contained in the language of the constitution, a series of court decisions established this precedent. Thus, supporters of the minimum wage had to demonstrate to the satisfaction of the courts that it would serve the larger public interest and not just help one group at the expense of another.

According to Levin-Waldman, the term "efficiency wage" had a somewhat different meaning in the early twentieth century than it does today. The Progressive reformers argued that a certain wage was necessary to enable workers to maintain their physical well-being, which would enable them to work more diligently and produce more effectively. That wage level also would give employers more incentive to train workers and to seek the most qualified workers and would give employees more incentive to train themselves and develop loyalty to their employers. Thus, a legal minimum wage would increase national productivity, thereby benefiting society as whole. This argument provided the grounds on which supporters could promote the minimum wage in courts that were sympathetic to the liberty of contract doctrine. The claim that a minimum wage would reduce poverty was vulnerable to the criticism that it amounted to helping one group over another, but the efficiency-wage argument was not.

The early minimum wage legislation, enacted by states after 1900, applied only to women. The statutes were upheld by the courts on the grounds that physical characteristics of women made them vulnerable to exploitation. However, following the granting of suffrage to women in 1920, courts began to strike down the statutes because women were now viewed as the legal equals of men and any legislation giving them special treatment violated liberty of contract.
In the midst of the Great Depression the courts began to see labor market legislation as something that serves a larger public interest. The Supreme Court ruled in 1936 that liberty implies only the absence of arbitrary restraint, not immunity from reasonable regulation. A minimum wage does not compel firms to enter into a contract involuntarily; it only prohibits them from paying wages below what is needed to maintain health and a minimum standard of living. Ultimately, the efficiency wage was one argument—along with protecting workers who were vulnerable to exploitation because of their unequal bargaining position and protecting the nation from further deflation and labor unrest during the Great Depression—that helped convince the courts that there was a sufficient larger public interest to overrule the liberty of contract and to allow minimum wage legislation to stand.

Constructing Long and Dense Time-Series of Inequality Using the Theil Index
Pedro Conceição and James K. Galbraith

Most empirical work on inequality uses the Gini coefficient or quintile ratios, both of which require data obtained in household surveys. However, because monthly or even yearly data of this kind are not available for most countries, few analyses of year-to-year changes in inequality exist. Furthermore, it is impossible to repair the gaps in the data for years in which adequate household surveys were never conducted. Pedro Conceição and Senior Scholar James K. Galbraith, both of the University of Texas at Austin, propose a method for studying the dynamics of inequality using wage and earnings data by industrial classifications. These data are available for many countries on a monthly basis and over long periods of time and can be used to construct a long and dense time-series using a Theil index of inequality. This method makes it possible to examine the evolution of inequality and to study the processes that determine changes in inequality much more thoroughly than is possible with inequality measures based on limited household survey data.

The Theil index of inequality has a number of advantages. It is symmetric, independent of population replications, and invariant under scalar multiplications of income; it satisfies the Pigou-Dalton property (a regressive transfer causes inequality to increase); and it agrees with the quasi ordering that can be derived from comparing Lorenz curves. Furthermore, its decomposability makes it possible to study inequality by race, gender, education, age, or other groups. The disadvantage of the Theil statistic is that it is based solely on data for manufacturing earnings and changes in inequality among workers in the manufacturing sector are not necessarily identical to changes in inequality in the economy as a whole. Conceição and Galbraith acknowledge that inequality in manufacturing is not a perfect measure of inequality in general, but argue that it is still valid to use because the two will rarely move in opposite directions.

According to the authors, using the Theil statistic based on industrial classifications gives a good measure of between-group inequality, but overall economic inequality is also affected by changes in the population shares across industrial classifications and by unobserved changes in inequality within each group. However, the internal rigidity of industrial structure tends to assure that changes in inequality within an industrial classification will be small relative to changes between classifications. Conceição and Galbraith construct the Theil statistic for the case of Brazil using monthly data on wages and employment for 17 industrial classifications for 1976 to 1995. Because there were no sharp changes in population over this long period, they infer that changes in shares occur infrequently and so are rarely a cause of change in inequality. Thus, although this methodology does not provide a perfect measure of inequality, it will open new possibilities for the analysis of the dynamics of inequality.

Do Employees Behave the Way Economists Think They Do? An Empirical
According to James Rebitzer, of the Weatherhead School of Management at Case Western Reserve University, economists need to explore new ways to conduct empirical research in order to amass the data on which to base and test their models and theories. For example, there are many models of employee "shirking" in the workplace but few empirical studies to test them. In a seminar at the Levy Institute Rebitzer discussed an empirical study of employee behavior he did with Daniel Nagin, Seth Sanders, and Lowell Taylor, all of Carnegie-Mellon University.

The "rational cheater" model of employee behavior, used by many economists, predicts that employees will cheat if they believe the benefits of cheating are greater than the expected costs of being caught. The model predicts that an increase in monitoring will decrease cheating and that employees with the lowest cost of job loss (those with the best other options) are the ones most likely to cheat when monitoring is low. The "impulse control" model, more common to psychology, assumes that employees are myopic and will cheat if they are tempted by short-term gains, even though the expected value of cheating may be negative. The model implies that employers will benefit from better screening of new hires and from making sanctions for cheating, such as dismissal, as immediate as the benefits from cheating. The "conscience" model, used primarily by sociologists, assumes workers get utility from the appropriateness of their actions, but, according to Rebitzer, this theory is not empirically testable and so is left out of the analysis.

Rebitzer's field experiment was conducted at a large telemarketing company conducting a fund-raising drive. Employees were paid a base pay plus bonuses for pledges. The bonuses were given before the donations were received, giving employees an opportunity to claim they had gotten a pledge when they had not. The firm monitored the employees by calling back people to see if they had indeed made a pledge. (Monitoring was not foolproof because some people would lie about pledging if they were embarrassed about having changed their minds.) Employees were not told how often they were monitored, but they were told when the firm found a suspicious pledge.

Over a period of months, the rate of callbacks was reduced, eventually to zero. Rebitzer and his co-authors claim that the observed behavior in the study provides some support for the rational cheater model. As monitoring decreased, suspicious calls increased, with the biggest change when monitoring was reduced to zero. Employees with the lowest cost of job loss had more suspicious calls than other employees at low levels of monitoring (although not at zero monitoring, just as the rational cheater model predicts). However, there were employees who had few suspicious calls even at zero monitoring, implying that it would be a mistake for firms to assume that the rational cheater model works for all employees.

Women's Work? School Teaching across American Regions, 1650-1920
Joel Perlmann
Seminar, December 14, 1998

In a seminar at the Levy Institute Senior Scholar Joel Perlmann discussed his forthcoming book written with Robert Margo, of Vanderbilt University, entitled Women's Work? School Teaching across American Regions, 1650-1920. The lecture focused on the gender distribution of teachers in the United States in the decades leading up to the Civil War. Throughout the nineteenth century the majority of teachers in rural schools in the South were men, but in urban schools in all regions and in rural schools in the North the majority were women. Northerners and southerners carried these patterns to new settlements as Northerners moved into the Midwest and Southerners moved into the Southwest and southern parts of the Midwest in the decades leading up to the Civil War.

Using sources not available until recently, Perlmann was able to trace these patterns clearly and question many
putative explanations for them. For example, plantations had private tutors and fewer schools, but that accounts only for a small portion of the southern population. Contrary to claims that women worked less in the South in general, women were actually as likely to work in the rural South, except in teaching, as in the rural North in 1860. Age of marriage was lower in the South than in New England, but it was not lower than in areas of the Midwest settled predominantly by northerners, in which the gender distribution of teachers followed the same pattern as in New England. The educational level of women was lower in the South than in the North, but the educational level of men was also lower in the South, so the educational level of women relative to men was about the same in both regions. Women were better able to work in cotton than in other agricultural work, such as the types of agricultural jobs that were available in the North, but the proportion of teachers who were women was no larger in areas of the South in which cotton was produced than in areas of the South in which it was not produced.

Perlmann noted the widely held belief at the time that women are more nurturing and better suited to care for the youngest children while men are stricter disciplinarians and better trained to teach the more advanced curriculum. In New England a two-tiered educational system developed in which older boys went to school in the winter so that they could work in the fields in the summer and girls and younger boys went to school in the summer. It became customary in the North for women to teach summer school. Possibly because of climate and settlement patterns no system like this developed in the South. Perlmann compared areas of the Midwest that were similar except for settlers’ states of origin. He found that the gender distribution of teachers was determined by whether an area was settled by northerners or southerners, which implies that norms, habits, and accepted arrangements for schools were the primary determinants of the pattern of hiring teachers.

Computers and the Wage Structure
Michael Handel
Seminar, February 18, 1999

Michael Handel, of Harvard University, led a seminar at the Levy Institute on his empirical research on the effect of computerization on the American wage structure. The increase in inequality in income over the last 20 years is well demonstrated, but the cause of this shift is less certain. Alan Krueger has claimed that the growth of computers in the workplace has increased inequality by increasing the skills premium for certain occupations. Handel argues that the empirical evidence does not support Krueger's claims.

Handel's data suggest that Krueger's estimates of the returns to computer use are too high. Krueger's study controlled for demographic and skill factors, but he selected computer use as the only indicator of the type of work employees performed. Handel used a number of job task indicators, such as reading and writing memos and letters, using mathematics, and using diagrams. He found that most of these indicators had a similar effect on employee wages as computer use. Indeed, writing memos and letters had an even greater effect. These findings suggest that computer use is actually just a proxy variable for having an office job.

According to Handel, the timing of the growth in inequality does not support the hypothesis that computers are the cause. The greatest growth in inequality occurred in 1981 and 1982, but the widespread use of computers did not begin until after 1984. Some researchers have argued that even though computers may not have been the main cause of inequality and some statistical measures of the impact of computers have biases due to omitted variables, computers were still a contributing factor to the growth in inequality. When Handel responded to this argument by adjusting 1989 rates of computer use to the 1984 level, holding all else constant, his results suggested not even a secondary role for computers. His conclusion is that the relationship between computerization and inequality has been greatly exaggerated and that researchers need to look elsewhere to explain growing inequality.
Is Keynesianism Institutionalist? An Irreverent Overview of the History of Money from the Beginning of the Beginning to the Present
L. Randall Wray

Keynes's General Theory is institutionalist in the sense that it focuses on the key institution of capitalism: money. Unlike neoclassical economists or subsequent American Keynesians who drop money from their theory, Keynes places it at the center of his analysis. Senior Scholar L. Randall Wray traces the history of the institution of money from ancient times to the present day to show that the development of money did not follow the pattern neoclassical economists suppose it did and that money does not function as they suppose it does.

The neoclassical conception of the history of money is well known: First, a barter economy existed. Then, to ease transaction costs, commodity money (such as sea shells) was introduced as a medium of exchange. To further ease transaction costs, governments standardized currency by minting coins; governments then used debasement of coinage to obtain seigniorage. In Wray's view, exchange in tribal societies existed for ceremonial reasons, not to maximize wealth, and so the medium of exchange in tribal societies cannot be considered protomoney. The earliest money we know of was in Mesopotamia in the third millennium B.C. According to Wray, it originated when tax debts were standardized so that the palace could farm out tax collection. Tablets recording these debts existed for several thousand years before King Pheidon of Argos issued the first coins in the seventh century B.C. Thriving trading societies operated for thousands of years without coins because credits and debits recorded on clay tablets or hazelwood tallies functioned perfectly. Furthermore, the denominations of all the early coins were far too large for them to have circulated as a medium of exchange. Coins were not minted to ease exchange, but, most probably, to provide state finance for the payment of soldiers and sailors. The coins were, then, nothing more than a new kind of tally for government debt. Government gave value to its money by requiring citizens to pay taxes with it.

Once a government has issued some form of money and given it value by imposing a tax, money can circulate as a medium of exchange, but this function derives from its original function as a tally of government debt. According to Wray, the belief that governments purposely debased their coins by reducing gold content to obtain seigniorage makes little sense because the value of the coins was never determined by their gold content. (The early modern development of the gold standard can be attributed partly to a misunderstanding of the nature of money, with gold seen as the guardian of the value of the currency.)

The Babylonians and other societies recognized, as Keynes did, that compound interest causes debt claims on income to rise more quickly than the ability to pay, leading to a concentration of wealth in the hands of creditors. For this reason debts were canceled regularly until the introduction of Roman law. Today there is debt forgiveness for the individual in the form of bankruptcy, but there is no debt forgiveness for government debt. In the United States, despite the federal budget surplus, 17 percent of the government budget goes to interest payments. Government policy is based on the belief that economic growth cannot exceed 2.5 percent without generating inflation and interest rates are triple that rate. Many modern economists see no ill in this situation because they view interest as just a payment to a factor of production for its marginal contribution, but 4000 years ago the Babylonians knew what problems this would cause. When the growth rate is below the interest rate, finance becomes Ponzi finance, in which one must borrow just to make the interest payments on outstanding debt.

Wray argues that "only in monetary economies is what is technically possible financially impossible." Early governments recognized that they issued money to buy what they needed and taxed to generate demand for that money. If a deficit resulted, it was only because citizens wished to hold some of a government's money. Today, unemployment is de facto evidence that the deficit is too small. Unemployment can be eliminated by an employer of last resort policy in which the government can issue all the money it needs to buy (to employ) unemployed labor at a fixed wage and let the deficit float as high as necessary. The deficit can be too large, which is inflationary, but by fixing the wage the government ensures that the deficit cannot rise to a level that
would be inflationary.

**Government Spending and Growth Cycles: Fiscal Policy in a Dynamic Context**
Jamee K. Moudud  

Resident Scholar Jamee K. Moudud investigates the impact of fiscal policy in the context of a classical growth and cycles (CGC) model. His model integrates sectoral incomes, expenditures, and finance requirements into an ex ante social accounting matrix (SAM). Investment in circulating capital, bank credit to finance accumulation, and the negative feedback effect of debt are at the core of the dynamic system and form the basis of its cycles. The CGC model is explicitly a model of a growing economy and any discussion of fiscal policy must differentiate between temporary and permanent changes in government spending relative to the growth path of output. A one-time rise in the level of government spending corresponds to only a temporary rise in the share of government spending relative to the growing level of output. Conversely, a one-time increase in the share of government spending (relative to the growing level of output) corresponds to an acceleration in the growth of government spending.

Moudud partitions the investigation between the fast (short-run) dynamic of the empirically observed 3-to-5-year inventory cycle and the slow (medium-run) dynamic of the 10-to-11-year fixed capital cycle. The composition of government spending is irrelevant for the short-run business cycle, but becomes relevant for determining the warranted growth rate in the medium-run fixed capital cycle. In the short run, an increase in the budget deficit share that is accompanied by expansionary monetary policy will lower the interest rate and the finance charges on firm debt. This will make the cycle more asymmetric by prolonging the expansions and reducing the recessions. However, in the medium run it is assumed that capacity utilization gravitates around normal and that the normal rate of profit is given by technology and income distribution. If government increases the share of government consumption spending, aggregate investment will fall as the budget deficit rises, but this crowding out happens for very different reasons than the neoclassical mechanism in which an increased budget deficit causes a rise in the interest rate.

In the CGC model a dynamic pulse (a one-time increase in the level of government spending that corresponds to a temporary increase in the share of government spending) increases short-run output but has no long-run effect on the system. Thus, unlike the neoclassical model, fiscal policy can have the positive effect of providing a short-run stimulus without having any longer-run negative effects. The medium-run warranted growth path corresponds not to full employment but to normal capacity utilization with structural unemployment. Thus, there is an opportunity for longer-run policy effectiveness if the government can increase the warranted growth rate by taking measures to encourage firms to invest more of their retained earnings. The warranted growth path can also be raised by changing the composition of government spending. This can be accomplished by an increase in government investment spending, which has empirically been shown to decrease production costs. This policy differs from those advocated by many Post Keynesians because it relies primarily on supply-side stimuli rather than on demand injections.

The CGC model, in which either crowding out or crowding in is possible, has far more complex policy prescriptions than the neoclassical model, in which the only strategy to increase output is to decrease the budget deficit. In the CGC model balancing the budget by decreasing public investment may cause a decrease in private sector investment, which could reduce the warranted growth path. This in turn could cause feedback effects that maintain or increase the deficit by increasing outlays of welfare payments. One of the key differences between the CGC model and the neoclassical model is that in the CGC model changes in business retained earnings and the rate and mass of profit are the most important determinants of long-run accumulation, but in neoclassical economics all profits are distributed to households and the only policies to increase investment are to encourage households to increase their saving or to reduce the deficit. A further difference between the CGC and neoclassical models is that unemployment along the warranted growth path in the former does not correspond to the NAIRU. Moudud concludes that the complexity of the economic system brought
out by the CGC model should discourage the simplistic draconian austerity measures currently being advocated as a solution to the world economic crisis.

The 1966 Financial Crisis: A Case of Minskian Instability?
L. Randall Wray
Working Paper No. 262, January 1999

The so-called credit crunch of 1966 has long been recognized as the first significant postwar financial crisis and the first important intervention by the Federal Reserve Bank to prevent the spread of a crisis. These events played an important role in the development of Hyman P. Minsky's financial instability hypothesis as he analyzed the transition from a robust early postwar financial system to a fragile system. Some economists have argued that the 1966 credit crunch was not a case of Minskian financial instability but the result of a shift in the focus of Federal Reserve policy from maintaining full employment to fighting inflation. Senior Scholar L. Randall Wray argues that, although there is no dispute that monetary policy was tightened during this period, the events of 1966 are consistent with Minsky's financial instability hypothesis.

Required reserve ratios, according to Wray, are not a binding constraint on banks because whenever a bank fails to meet the minimum balance requirement, the Fed automatically books a loan of reserves. Government deficit spending generates excess reserves, requiring bond sales to drain those reserves. The Fed always chooses a short-term interest rate and ensures that the quantity of reserves is just sufficient to allow banks to meet minimum balance requirements. Banks, therefore, do not worry about their ability to obtain reserves, although they do worry about the cost of purchasing high-powered money when reserves are needed.

Minsky believed that the robust postwar U.S. economy was initially dominated by hedge financing, but as memories of the Great Depression faded, private sector leveraging increased. Fear of inflation led the Fed to increase interest rates during the economic expansion of the 1960s from less than 2 percent in 1961 to 5.75 percent in 1966. By then there was no way for banks to know how high the Fed was going to push interest rates, and they became reluctant to make loans that might require them to borrow high-powered money from the Fed. Wray contends that during such tight money periods, banks are reluctant to increase bond holdings, and it was the disorganized bond market that forced the Fed to loosen monetary policy in 1966.

As Minsky argued, the two most important roles for government ("big bank" intervention as lender of last resort and "big government" spending to provide a floor for aggregate demand) helped stop the 1966 credit crunch from generating a recession. The economy continued to expand, memories of the Great Depression receded further, business expectations about the reasonable size of their leverage ratios were substantiated, and markets began to expect that the government would come to the rescue when needed. The 1966 credit crunch was followed by the "liquidity squeeze" and commercial paper run of 1970, the bank failures of 1973 to 1975, the saving and loan fiasco of the mid 1980s, the 1987 stock market crash, the Asian meltdown of 1997, and the "coming Great Crash of 1999 (or 2000?)." According to Wray, the "1966 crisis was only a minor speedbump on the road to Minskian fragility."

Further Evidence on the Distributional Effects of Disinflationary Monetary Policy
Willem Thorbecke
Working Paper No. 264, February 1999

The performance of the U.S. economy between 1994 and 1998 was good—so good that some pundits, fearing that continued increases in asset prices would lead to inflation or a sudden fall in those prices, began to call for the Federal Reserve to increase interest rates to depress economic activity and reduce asset prices. Research
Associate Willem Thorbecke, of George Mason University, believes that the Fed should not slow the economy to stabilize asset prices because a substantial rise in interest rates would have adverse distributional effects, harming most those who have profited least from the stock market's rise.

Thorbecke combines various methods of studying the effects of monetary policy on economic activity: impulse-response functions from identified vector autoregression (VAR), a narrative approach, and the Romer and Romer approach. The VAR method defines monetary policy shock as an unexpected change in the federal funds rate. It involves regressing the funds rate on a constant, six lags of itself, six lags of aggregate industrial production growth, the inflation rate, the log of a commodity price index, the log of nonborrowed reserves, the log of total reserves, and the log of employment. The portion of the funds rate that cannot be predicted using these variables is treated as the unexpected change in the funds rate. Impulse-response functions from the VAR indicate that unexpected increases in the federal funds rate increase unemployment among blacks and Hispanics by 50 to 90 percent more than among whites.

Thorbecke applies the narrative approach pioneered by Milton Friedman and Anna Schwartz. He uses a wide range of qualitative evidence to construct a narrative history of two recent disinflationary periods, 1974 and 1979, both of which were followed by severe recessions. Higher interest rates in the 1974 disinflation decimated the housing industry, which accounted for half of the decline in GDP during the recession year of 1974. Many economists agree that slower money supply growth and higher interest rates helped spark the two recessions that occurred between 1979 and 1982. Two interest-sensitive sectors, construction and durable goods, showed the largest declines in 1980 and 1981.

Thorbecke uses the Romer and Romer approach to investigate disinflationary periods. They examined the minutes of Federal Open Market Committee meetings to determine dates on which the Fed attempted to create a recession to reduce inflation. Romer and Romer used dummy variables to represent these dates and found that forecasts of unemployment increase significantly and forecasts of industrial production decline significantly following disinflationary episodes. Using these dates, Thorbecke estimates that antiinflationary policy shocks increase unemployment among nonwhites more than twice as much as they do among whites.

Thorbecke also employs a social accounting matrix (SAM) to examine the effects of disinflationary policy on various socioeconomic groups. The SAM is a disaggregated general equilibrium accounting framework that seeks to model the interdependencies characterizing an economy at a given time. The SAM makes it possible to map changes in sectoral output onto changes in factor income. In both of the two sectors that were hardest hit by recession following the 1974-1975 and 1979-1982 disinflations (construction and durable goods), blue-collar workers were harmed more than other workers in terms of lost income. In both sectors urban households were hurt much more than rural households.

Thorbecke finds that minorities bear the brunt of disinflationary policy. Furthermore, because they are less likely to own stocks, they will not share proportionately in the benefits of keeping the stock market stable. Before the Fed accepts advice to slow the economy in order to lower the prices of stocks and other assets, it should consider that asset price stabilization is not included in its mandate to seek maximum employment, commodity price stability, and moderate interest rates. Although it is possible that higher stock market volatility can lead to inflation or recession, these links are tenuous and uncertain. If a policy of asset price stabilization is considered, Congress and the Fed should take into account the fact that the individuals most likely to be hurt by deflating asset prices are the ones least likely to benefit from asset price stability.

Program: Federal Budget Policy

Goldilocks and the Three Bears
L. Randall Wray
Policy Note, 1998/7

Since the early 1990s the United States has enjoyed robust growth, and the Goldilocks economy has been
neither too hot to induce inflation nor too cold to allow unemployment to rise. This has been perplexing for
economic analysts who believe that robust growth and low unemployment generate inflation and for
conventional policy, which uses higher unemployment to fight inflations. Senior Scholar L. Randall Wray
points out that inflation disappeared as a serious economic problem in 1983; the unemployment rate has not
been all that low, compared to the 1960s; and the Goldilocks economy is not as unusual as is often believed.
Robust growth has generally been associated with low inflation and low unemployment. What the analysts
have missed, however, according to Wray, are the real dangers facing the Goldilocks economy: the three grizzly
bears of global financial crisis, global deflation and excess demand, and a domestic surplus in conjunction with
record private deficits.

Pundits have assured Americans that the first of the three bears, the Asian flu, which has already spread to
Russia and South America, will not spread to the United States because it does not suffer from an overvalued
currency, "crony capitalism," and insufficient transparency in financial markets. But, according to Wray, the
stock market stumble of 1998 and the Long-Term Capital Management debacle reveal that these assurances are
at best overly optimistic.

The second of the three bears is the global deflation of recent years, together with the mistaken belief that the
world economy was in good shape. Wray asserts that prices have been stagnant or falling for some time.
Falling prices increase the difficulty of servicing debt and accumulating earnings to finance expansion. Most of
the robust growth in the past few years has been driven largely by investment spending, which is a good thing
as long as the demand for final products is sufficiently high. However, much of this investment was oriented
toward production for export, which requires rapid growth to validate it. The push toward fiscal austerity in
most of the developed world could mean that the investment boom has created excess capacity relative to world
demand.

The third bear is the private sector deficit and the federal budget surplus. Wray cites research showing that the
U.S. economy can continue to expand only as long as the private sector deficit increases, but, with consumer
debt already at record levels, it is highly unlikely that its growth will continue. Statements that the movement
toward budget balance has fueled the expansion reverse cause and effect. Economic booms reduce fiscal
deficits through automatic stabilizers, but the reduction then acts as a fiscal drag on the economy.

Wray concludes that it is folly to maintain a budget surplus in the face of a looming world crisis. Instead, "The
United States, together with the world's other industrial powers, must put together a plan that would lower
interest rates, increase government spending, and target tax cuts to low-income consumers. Such a plan would
help to counter the threat of worldwide deflation and could put the world's economy back on track for renewed
growth."

How Negative Can U.S. Saving Get?
Wynne Godley and Bill Martin
Policy Note 1999/1

The U.S. economy continues to grow with surprising vigor, thanks largely to private spending. The key
question now is whether the United States can sustain its strong rate of spending, thereby propping up a
troubled world. Distinguished Scholar Wynne Godley and Bill Martin, chief economist at Phillips & Drew,
answer with a resounding no. They write that while the immediate prospects for the U.S. economy are difficult
to predict, "Looking ahead to the next few years, it seems to us wholly improbable that the United States can
continue to act as the world's spender of last resort. Indeed, if present policies continue, the medium-term
outlook for American activity appears exceedingly bleak."

According to Godley and Martin, "American demand has been kept alive by a burst of spending by households
and companies well in excess of after-tax incomes." The large and growing gap between private spending and
income has been financed primarily by an increase in borrowing. In 1998 private spending rose by 6 percent, almost twice the increase in disposable income. Without this spending the economy would have stagnated, especially given recent U.S. trade performance. For this pattern of demand growth to continue over the next five years, private spending would have to exceed income by an amount double the unprecedented 1998 level and equivalent to over 8 percent of the GDP (see the chart below). The authors calculate that the flow of net lending to the private sector would have to rise to over 20 percent of disposable income, and external net debt would then rise to over 30 percent of GDP, thanks to a large and widening trade gap.

This debt load, Godley and Martin contend, is clearly unsustainable: "At some stage, private sector spending will subside to a rate at best equal to, and more probably below, private sector income." This would bring U.S. economic growth to a halt, with serious collateral damage to the rest of the world. Although monetary policy would surely be adjusted to compensate for slowing growth, nominal interest rates might have to fall to zero simply to match falling price expectations. If so, there would be no scope to offset deflation by monetary means. Fiscal expansion is a more promising option, but it cannot be undertaken by the United States alone. Coordinated fiscal pump-priming in Europe and the United States offers the most plausible solution.

The Emperor Has No Clothes: President Clinton's Proposed Social Security Reform
L. Randall Wray
Policy Note 1999/2

President Clinton has proposed to "save" Social Security by committing 60 percent of projected government budget surpluses for the next 15 years to that purpose. But, according to Senior Scholar L. Randall Wray, the president's plan rests on several unexamined assumptions. For one, it relies on budget surpluses for the next 25 years, but the nation has never run budget surpluses for such a long period. Every time there have been substantial surpluses, the economy has quickly collapsed into a depression that created budget deficits. For another, the president's projected surpluses through 2003 will be achieved mainly thanks to a surplus run by Social Security. In other words, 60 percent of federal surpluses—created for the most part by Social Security—is being counted toward saving Social Security.

Perhaps the most important weakness in the president's proposal is the assumption that setting aside surpluses realized during the next several years can really help ease the budgetary burden of the baby boomers' retirement. Wray explains that this assumption is based on an accounting fiction. When the Social Security System runs a surplus, the Treasury creates a nontradable bond that is held by the Social Security Trust Fund. This bond is essentially an IOU the government owes to itself. Thus, as the budget surplus rises due to surpluses in the Social Security Trust Fund, the government's indebtedness to itself rises rather than falls.

President Clinton's plan amounts to taxing current workers about 2 percent more than is needed to cover all OASDI expenditures, writing IOUs that are stored at the Treasury, and then taking them out in 2020 to turn them back over to the Treasury, which will then have to raise cash by issuing bonds or increasing taxes—exactly what would have to be done regardless of the existence of the Trust Fund. The president's plan will have done nothing to provide for retirees. Thus, current workers could enjoy a tax cut now without having any impact on what will have to be done in 2020 to provide for retirees.

According to Wray, the accumulation of financial assets by the Social Security Trust Fund cannot do anything to increase the quantity of goods and services that can be produced in 2020. It can at best affect the distribution of those goods and services going to the elderly but that is not certain. Investing a portion of the Trust Fund in the stock market has been suggested as a way to increase the return on the fund's financial assets, but unless accumulation of the Trust Fund actually enhances society's ability to produce goods and services in the year 2020, the amount to be distributed will be exactly the same whether the Trust Fund is larger or smaller.

Wray concludes that the burden of providing real resources to retirees in 2020, or any other year in the future,
will fall on workers in those years regardless of the taxes imposed today. It would be far more straightforward to increase taxes on workers in 2020 than to try to accumulate financial reserves over the next 20 years. Asking workers to make a sacrifice by paying unnecessarily high taxes today will not reduce the tax burden on future workers.

Other Projects

**Theories of Value and the Monetary Theory of Production**
L. Randall Wray
Working Paper No. 261, January 1999

A monetary theory of production is one whose subject of analysis is self-consciously a monetary economy. Keynes's value theory, like Marx's, stands in contrast to neoclassical value theory in which value is subjectively determined by consumers, prices reflect relative scarcities, and money is irrelevant. Many authors have attempted to synthesize the theories of value adopted by Marx and Keynes, but, according to Senior Scholar L. Randall Wray, few fully recognize the importance of the labor theory of value in Keynes's monetary theory of production.

Marx sought an objective theory of value, which, unlike neoclassical theory, relies neither on subjectivity nor scarcity. He emphasized the dual nature of labor: as the basic element of production and as a commodity with exchange value. Labor hours can serve as an invariant measure of value because although changes in technology can change the number of hours required to produce a particular commodity, the number of hours required could always serve as a measure of the difficulty of production of all commodities including the commodity labor power that is exchanged at the going wage. Because labor power is able to produce value beyond what is necessary to reproduce itself, surplus value is created. Prices, however, do not reflect labor values because prices are formed to equalize profit on invested capital. Thus, the labor theory of value does not provide a theory of price, but it provides insights into a process of price formation in which surpluses are redistributed to equalize profit.

Keynes also employed the labor theory of value but only as a part of his value theory. The scarcity-based neoclassical theory could not explain the process of price formation when output is variable. In Keynes's theory an hour of ordinary labor counts as one unit and an hour of specialized labor counts in proportion to its wages relative to the wages of ordinary labor. Prices for Keynes are not determined by marginal utility and scarcity, but partially by labor costs and partially by what could be called the liquidity preference theory of value. One component of the cost of any commodity is the user cost of the firm's own equipment involved in producing the marginal output. Today's user cost is equal to the maximum of the discounted values of the potential future yields of postponing use of the equipment. Therefore, expectations of future prices must be included in today's price. Thus, supply prices cannot be determined merely by marginal factor costs, as neoclassical theory supposes, or by only embodied labor as Marxian theory supposes, but, according to Keynes, supply prices also embody the value of the capital that is tied up in the production of that commodity, which, in turn, involves an expectation of future prices and the firm's liquidity preference. Assets with similar expected yields, carrying costs, and expected appreciation (or depreciation) but different liquidities will have different values determined entirely by liquidity preference.

According to Keynes, once the liquidity premium and expectations of future prices become components of today's prices, money cannot be neutral. Some critics of Keynes's approach believe that expectations must have only a temporary effect, because expectations that do not conform to the objective situation will be automatically revised. According to Wray, however, this view does not take into account the possibility that the objective situation can change to conform to expectations. Expectations need not be rationally formed to turn out to be correct. To the extent that expectations are self-fulfilling, objective reality will not give individuals any
Some critics also argue that one could just as well state that capital or petroleum or any other input produces all value, but, according to Wray, this ignores the fundamental role of wages in a monetary production economy in which most worker income returns to capitalists in exchange for goods. The use of the labor theory of value provides the external measure of value by separating labor, which is not a value, from labor power, which is a commodity with value. Any other commodity standard is itself only a value. This is not to say that other factors of production are not productive or that embodied labor is the only thing commodities have in common. It is merely to say that labor fulfills the requirements of a theory of value while other factors do not. The choice of the wage unit in Keynes's system is due to the need for an external measure of value, but it also reflects the prominent role played by wages as the major source of sales revenue. Liquidity preferences reflect social relations of production in a manner similar to but distinct from the way labor values reflect social relations in production.

From Common Market to EMU: A Historical Perspective of European Economic and Monetary Integration
Philip Arestis, Kevin McCauley, and Malcolm Sawyer
Working Paper No. 263, February 1999

Visiting Senior Scholar Philip Arestis, of the University of East London, Kevin McCauley, also of the University of East London, and Visiting Senior Scholar Malcolm Sawyer, of the University of Leeds, trace the history of the European Union. The notion of a European parliament was proposed as early as the seventeenth and eighteenth centuries by William Penn and Immanuel Kant, but it was not until after World War II that European nations began taking active steps toward economic and political union.

The organization that was to become the European Union began as the European Coal and Steel Community (ECSC) in July 1952 when France, Germany, Italy, the Netherlands, Belgium, and Luxembourg signed a treaty establishing a free trade area in coal and steel. Although the treaty covered only two commodities, these were two of the most important commodities at the time, and the treaty created the first institutional structure in Europe that had supranational powers.

In 1957 the Treaty of Rome changed the ECSC into the European Economic Community (EEC). The EEC's goal was to create a common market by eliminating customs duties and quantity restrictions on intra-EEC trade, establishing a common external tariff, introducing common policies for agriculture and transportation, encouraging coordinated economic policies, and freeing the movement of goods, capital, and persons. All tariffs for internal trade were eliminated in 1968, but the elimination of quantity restrictions and the coordination of macroeconomic policy took much longer.

By the 1980s the EEC had enlarged to include the United Kingdom, Ireland, Denmark, Spain, Portugal, and Greece along with the original six members. Momentum grew to bring the community toward greater integration. Europe's loss of competitiveness and the subsequent rise in unemployment was linked, in part, to the fragmentation of the European market due to the existence of nontariff barriers. Neoliberal ideology was gaining ground and interest grew in the completion of the single market in hopes that it would improve efficiency and promote growth. The Single European Act, passed in 1987, called for the removal of all internal barriers to trade by December 1992.

The EEC had attempted to move toward monetary union at the beginning of the 1970s, but the effort failed by the middle of the decade in the face of political opposition and economic obstacles such as the oil shocks and the collapse of the Bretton Woods system. But, by 1977 the European Council, composed of the heads of state of the EEC member nations, adopted a resolution establishing the European monetary system (EMS) in hopes that it would be able to maintain low inflation and stable exchange rates leading to economic and monetary convergence and eventually to monetary union. The EEC established the exchange rate mechanism (ERM) to
maintain exchange rates within a certain band by providing a parity grid tied to each currency and making credit facilities available to intervene in the foreign exchange market. The ERM's fundamental weakness was that it attempted to fix exchange rates without the coordination of monetary and fiscal policies.

In 1992 tight monetary policy in Germany triggered an ERM crisis. Facing a strain to maintain their currencies within the band, the United Kingdom and Italy were forced to abandon the ERM and six other devaluations followed. It appeared that the move toward monetary integration had been permanently derailed. However, by then the Maastricht Treaty on European Union was going into effect and the stage was set for European monetary union (EMU).

The treaty attempted to coordinate monetary and fiscal policy by setting up a number of qualifications for participation in the EMU. Member states were required to maintain their exchange rate within a narrow band, reduce inflation, limit budget deficits to no more than 3 percent of GDP, limit government debt to less than 60 percent of GDP, and limit long-term interest rates to no more than 2 percent more than the average rate in the three countries with the lowest inflation rate. In May 1998 the European Council selected the countries qualifying for EMU, and in January of 1999 the European Central Bank permanently fixed the exchange rates of participating states and took over full responsibility for monetary policy.

According to Arestis, McCauley, and Sawyer, the Maastricht Treaty was signed at a time when neoliberal ideas held sway. Although there has been, perhaps, some decline in neoliberalism in Europe as left-of-center parties have won electoral victories, the neoliberal agenda has shaped the environment in which the euro is being introduced. The institutional setting is embedded with what can be called "new monetarism."

The Political Origins of U.S. Multilateralism, 1934-1945
James N. Miller
Seminar, February 9, 1999

The United States was instrumental in pushing for the formation of the General Agreement on Tariffs and Trade (GATT) at the end of World War II. Critics of U.S. foreign policy have accused the United States of using its hegemonic power to create the GATT in order to advance its neoclassical free-trade ideology. Cambridge University Visiting Scholar James N. Miller contends that this view is simplistic. It is true that tariff barriers have come down significantly since the formation of the GATT, but it has endured because it has provided a flexible multilateral forum that many countries see as beneficial.

Miller defines four types or degrees of multilateralism (the coordination of policy among three or more nations). Procedural multilateralism is the participation of all member nations in forming policy. Principled multilateralism is the support of principles behind a policy by all member nations whether or not they participated in its formation. Instrumental multilateralism is the adherence to a policy by some member nations even if they do not support its principles because they believe they can get something in exchange for doing so. Coercive multilateralism is the coercion of some nations to adhere to a policy made by other nations.

The GATT succeeded, according to Miller, because of its emphasis on procedural multilateralism more than because of its emphasis on free trade principles and efforts to reduce trade barriers. The United States used its hegemonic power to push through a procedure by which less and more powerful nations would formulate international trade policy together. That procedure, paradoxically, helped undermine U.S. hegemonic power because a hegemony has greater leverage in bilateral negotiations than its does in a large open forum in which other members can band together against it. There are a number of reasons why the United States may have chosen to advocate procedural multilateralism despite the threat to its hegemony. U.S. policymakers may have believed, because of their experience with the failures of the international trading system during the depression era, that procedural multilateralism was necessary to avert another worldwide catastrophe. Or, they may have believed that in an open forum, where a large number of nations were represented, free trade would be the natural result. U.S. policymakers, led by Cordell Hull, were committed to free trade principles, but they seemed
to be unaware that the procedural multilateralism they were pressing for conflicted with the open trading system they were simultaneously advocating. Other nations led by Great Britain and Australia advocated major exceptions to American open trade principles.

By the time the GATT was signed, it was far less oriented toward free trade than the United States had hoped, but over the years since its formation the open forum has gradually reduced tariffs and made international trade more open. Therefore, in the long run, procedural multilateralism has enabled the GATT to serve the principles that the United States advocated at the outset.

Institute News

New Appointments for Papadimitriou

Levy Institute president Dimitri B. Papadimitriou has been named as a member of the Trade Deficit Review Commission, a bipartisan congressional panel. The commission will consist of six members appointed by congressional Democrats and six appointed by congressional Republicans. It will be charged with studying ways to narrow the U.S. trade deficit. In addition to Papadimitriou, the appointments thus far include George Becker, president of the Steelworkers of America, and Lester Thurow, of the Massachusetts Institute of Technology.

Papadimitriou has also been appointed a visiting professor at Smolny College in St. Petersburg, Russia. He will be lecturing on topics in macro- and microeconomics.

Upcoming Events

Ninth Annual Hyman P. Minsky Conference on Financial Structure
The onset of the economic crises in Asia, Russia, and Latin America has led to new and renewed interest in the work of Hyman P. Minsky, especially his financial instability hypothesis. The hypothesis is perhaps his best-known work and stands out as immediately relevant to the crises, but Minsky wrote about a wide range of economic issues. The objective of this examination of Minsky's work is therefore twofold: to determine the extent to which current domestic and global economic events coincide with the types of instabilities he described and to analyze his policy recommendations to alleviate both instability and other economic failures, such as unemployment and maldistribution of income. Featured speakers include two members of the Federal Reserve System's Board of Governors, Edward M. Gramlich and Laurence H. Meyer; Richard S. Carnell, Assistant Secretary for Financial Institutions, U.S. Department of the Treasury; and Chairman S Jay Levy and Vice Chairman and Director of Forecasting David A. Levy, of the Levy Institute.

Workshops

Inequality and the Distribution of Income
June 8-10, by invitation only

Association for Evolutionary Economics/Levy Institute School on Institutional Economics
June 20-23, by invitation only
Congressional Testimony by Wray on Expansion's Employment Effects

On March 11, 1999, Senior Scholar L. Randall Wray testified before the Immigration and Claims Subcommittee of the House Judiciary Committee. His prepared statement, written with Research Assistant Marc-André Pigeon, is an examination of the impact the current expansion has had on job opportunities. Wray and Pigeon find that, despite falling unemployment rates and a putatively tight labor market, the expansion has not created a significant number of jobs for workers who do not have at least some college education (about half the nation's labor force) and that well-targeted, active labor market policies will be required to help these workers who have not shared in the employment gains.

The complete text of the testimony can be found at [http://www.house.gov/judiciary/6.htm](http://www.house.gov/judiciary/6.htm).

Publications and Presentations by Levy Institute Scholars

**President Dimitri B. Papadimitriou**

**Distinguished Scholar Wynne Godley**

**Senior Scholar Walter M. Cadette**

**Senior Scholar James K. Galbraith**

**Senior Scholar L. Randall Wray**

Visiting Scholar Mathew Forstater


Resident Scholar Oren M. Levin-Waldman


Resident Scholar Jamee K. Moudud


Cambridge University Visiting Scholar Malcolm I. Barr


Cambridge University Visiting Scholar James N. Miller


Resident Research Associate Karl Widerquist


Resident Research Associate Ajit Zacharias


Research Assistant Marc-André Pigeon


*Presentation:* with L. Randall Wray, "Did the Clinton Rising Tide Raise All Boats?" Eastern Economic Association, Boston, March 12-14, 1999.