The Levy Economics Institute of Bard College

Report

July 2008 Vol. 18, No. 3

17th Annual Hyman P. Minsky Conference on the State of the U.S. and World Economies

CREDIT, MARKETS, AND THE REAL ECONOMY: IS THE FINANCIAL SYSTEM WORKING?

On April 17 and 18, the Levy Institute hosted its annual Minsky conference to discuss the current crisis in the U.S. mortgage and financial markets and the effect on the real economy. It will be clear in the following pages that many of the Minskyan themes investigated at the Institute over the years have gained broad recognition for their particular relevance to the current financial crisis, and now have a much wider following among academics, policymakers, and analysts. Moreover, the 2008 conference was also broad in outlook, with participants not only discussing the crisis and its resolution from many different perspectives—including those of international relations, the legality of certain financial practices, and Minsky's views on market instability—but also offering various expert opinions on the depth and durability of the recession currently facing the United States.

Paul A. McCulley

Contents

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 problems that profoundly affect the quality of life in the United States and abroad.

The *Report* is published four times per year by The Levy Economics Institute of Bard College.

Editor: Feridoon Koohi-Kamali
Text Editor: Barbara Ross

To be placed on the *Report* mailing list, order publications, or inquire about or comment on research and events, contact the Levy Institute:
The Levy Economics Institute of Bard College, Blithewood, PO Box 5000, Annandale-on-Hudson, NY 12504-5000
Tel: 845-758-7700, 202-887-8464 (in Washington, D.C.); Fax: 845-758-1149; E-mail: info@levy.org

All publications are available on the Institute's website (www.levy.org).

Jane D’Arista

Alex J. Pollock

Conference *Continued from page 1*

Welcome and Introduction

DIMITRI B. PAPADIMITRIOU, LEVY INSTITUTE

Papadimitriou devoted his introductory remarks to the type of fiscal policies required to stimulate the U.S. economy out of the current recession. He noted that the Levy Institute runs simulations of the U.S. economy and its relation to the global economy for the intermediate term, derived from a macroeconometric model developed at the Institute. He also noted that this research has always been guided by the importance of Minsky’s insights into the linkages between financial markets and the real economy.

Papadimitriou outlined a baseline scenario that assumes a “soft landing”: private sector borrowing stabilizes after 2009, the price of existing homes rise at the same rate as the general price index, and there are no further oil price increases after mid-2008. Against this baseline, projections obtained for the government-proposed one-off $150 billion stimulus package, mainly in the form of tax cuts or net transfers over a single quarter, show only a temporary effect on the level of demand and output, which reverts to its previous (lower) growth rate when, in the following quarter, no additional transfer is received. Papadimitriou contrasted this outcome with an alternative scenario that assumes a $600 billion economic stimulus package in the form of government expenditure on goods and services, spread over four successive quarters starting in the third quarter of 2008. The projections suggest output loss is at least a full 1 percent less in each of the four quarters as compared to the same package in the form of net transfers. This is because government expenditures on hospitals, roads, and so on are, unlike transfers, part of GDP, affecting it directly to the full extent. This follows from the multiplier effect for a fiscal stimulus of this kind, as income from government employees and contractors creates further demand and further rounds of expenditure. Papadimitriou concluded by noting that the impact of a stimulus plan will therefore depend on how temporary it is, what form it takes, and the feasibility of quick implementation of public works projects.

Session 1. Historical Precedent and Solutions to the Mortgage Market Crisis

Moderator: DIMITRI B. PAPADIMITRIOU, LEVY INSTITUTE

Speakers: JANE D’ARISTA, FINANCIAL MARKETS CENTER; THOMAS FERGUSON, UNIVERSITY OF MASSACHUSETTS BOSTON; ALEX J. POLLOCK, AMERICAN ENTERPRISE INSTITUTE; WALKER F. TODD, AMERICAN INSTITUTE FOR ECONOMIC RESEARCH

The expansion of credit created outside the banking system has seriously eroded the ability of the Federal Reserve (Fed) to take effective action to resolve the current financial crisis. D’Arista devoted her discussion to how the Fed’s policies have lost their effectiveness, and outlined a new system that assesses reserves against assets rather than deposits, and applies reserve requirements to all segments of the financial sector, not just the banks.

D'Arista examined how capital flows played an important role in weakening the impact of interest rate changes on financial markets and on the real economy, demonstrated in the Fed's failure to halt the decline in long-term interest rates in 2004 or to prevent the subsequent flood of new borrowing in 2005 and 2006 by raising the short-term rate. D'Arista went on to discuss countercyclical solutions, such as liquidity, collateral, and margin requirements, tighter repayment periods, and loan-to-value ratios, proposed by the Bank for International Settlement (BIS) in its 2005 annual report for macrofinancial stabilization. D'Arista noted, however, that the quantitative measures recommended by BIS would apply only to banks and not to other financial sectors, hence ignoring the systemic threats posed by the rapid growth and enhanced role of sectors other than banking in channeling savings and credit. She argued that creating a reserve system that extends the Fed's influence over the financial system as a whole requires that reserves be issued to and held by financial institutions as interest-free liabilities of the central bank, allowing the monetary authority to create and extinguish reserves for banks and nonbank financial firms alike. However, this involves balance-sheet changes for firms as well as the Fed, eliminating the current practice of treating reserves on the asset side as claims against the Fed, as though depository institutions had loaned their funds to the central bank. Defining reserves as liabilities would clarify the fact that reserves represent the financial sector's obligation to serve as a transmission mechanism for policy initiatives intended to affect economic activity. The new system would be particularly important in the event of market disruptions. The fact that reserves retain their market value enhances their role as a cushion, since trades backed by an institution's reserve account with the Fed are viewed with confidence.

Ferguson compared the policies of the New Deal and the present-day politics of finance, and discussed the relevance of issues such as political party financing for understanding which policy measures are approved. He noted that, while the Fed's rescue of Bear Stearns did not substantially help that company's stockholders, the same was not true for buyer JPMorgan Chase, whose stock, as well as that of other primary security houses, soared from the moment a takeover deal was announced. Ferguson argued that since public money was involved in the rescue plan, some of the gains in JPMorgan's stock value should be returned to the public, and noted that no one has yet raised this issue. Under the New Deal policies of the 1930s, the federal Reconstruction Finance Corporation (RFC) took preferred stock in any institution it aided, later selling the stock to recover its costs. By contrast, Ferguson said, nothing is given back to the public today. He also focused on the history of the Banking Act of 1933, which famously separated investment from commercial banking. He noted that one of the lessons of this period is that disruption to financial markets has to be extreme before political obstacles can be overcome and government action taken, and even then, politicians react very slowly to a financial crisis. The 1930s experience shows that reliance on voluntary cooperation is unlikely to be effective, Ferguson said. He also produced some interesting figures for party finances for the 2008 presidential election. These showed that, at the outset of the campaign in Iowa, Hillary Clinton, Barack Obama, and Christopher Dodd received 14, 11, and 12 percent in outside funding, respectively. When the corresponding percentages of the total funds given to each candidate by the finance/banking sector were examined, Dodd turned out to have received a much larger share from this source, despite the fact that he was not running a serious campaign. The reason: he is on the Senate Finance Committee.

Pollock highlighted the short-term financing of long-term risky assets as being at the core of the problems faced today, and discussed some policy recommendations to counter its effects. He noted that bubbles generate low perceived risk, low delinquencies, and low numbers of defaults, thereby confirming the success of the debt expansion. In fact, the market starts to look at projected increases in asset prices as a legitimate part of the loan-to-value ratio; hence, short-term financing of long-term positions is the normal structure of a bubble, and overconfidence becomes the prevailing mood—until the bust occurs. Pollock recommended three counterpolicies to prevent the emergence of bubbles. First, the creation of a 1930s-style Homeowners' Loan Corporation to provide refinancing for troubled mortgages. Essential to this idea is that it is a reaction to the bust, so the organization should be temporary, disappearing when the economy reverts to its normal state, and it should make a modest profit to cover its expenses and losses due to defaults. Second, the system of informational asymmetries between borrower and lender should be replaced with a brief, straightforward explanation of what a mortgage payment means to the borrower: its principal, interest, tax and insurance, and, above all, the percentage of the borrower's income required to service it. Third, Pollock noted the urgent need for lending arrangements to be put on a secured basis. If lenders have to retain the risk, they will be more careful about making mortgage credit decisions. Therefore, a system must be put in place to keep the credit decision makers significantly involved in the credit risk.

Todd's discussion was based on an outline of a plan for mortgage refinancing in the heartland states, which require a solution to their mortgage problems that is radically different from those in Southwestern and coastal states. For example, in Detroit's minority areas, where nonspeculative subprime mortgages and foreclosures are common, borrowers were well qualified for conventional loans but decided to reduce their current payments by chasing so-called "fixed" mortgages with low initial "teaser" rates. Todd argued that refinancing solutions from the 1930s are particularly relevant to the problems of this type of nonspeculative mortgage. The RFC was created in 1932 as part of a consistent and coherent solution to the insolvency problems of the period. Typically, the RFC would inject funds into a corporation for either five or 10 years. If the company recovered, the RFC's warrants for common voting equity would increase in value. If the borrowing company failed to repay the debt within the specified time, the RFC would own the company. The RFC also provided an emergency mortgage rescue facility that refinanced mortgage loans for between 800,000 and 1 million nonfarm homeowners during 1933–36 to avoid their foreclosure; a parallel entity provided analogous assistance to farmers. Similarly, in response to current conditions, Todd recommended that the state should create a board to issue bonds in the remaining principal amount of mortgages that require refinancing, say, for five-year or 10-year terms, depending on the consensus assessment of how soon the crisis will end. An advantage of such a scheme is that the presence of state financing should place a cap on the rate and concentration of foreclosures, and a floor under housing prices. The state would receive income from homeowners, who would still be expected to stay current on their mortgages at the new rate. The state's potential liability could be capped and insured against. Homeowners using the program would receive notices at the five- and eight-year marks that they were expected to seek private sector refinancing of their mortgages on conventional terms, at a fixed rate, and with (preferably) a 20 percent down payment after 10 years in the program.

Keynote Speaker: PAUL A. MCCULLEY, PIMCO

McCulley contrasted the dynamics of the forward and "reverse" Minsky journeys. The former is the gradual transformation of financial structures with a reasonable prospect of loan repayment (speculative units) into those without such a prospect (Ponzi units). The latter describes the rather rapid evaporation of Ponzi units when the financial bubble bursts and lenders withdraw funds not only from these units but also from speculative units. McCulley argued that this second process has been evident since last year, and examined its features and the counterpolicies required to deal with it. He pointed out that Minsky predicted that aggressive profit-seeking banking would drive bankers to use off-balance-sheet, highly leveraged vehicles, or "Ponzi finance." Minsky believed in regulating the process by constraining the asset-equity ratio of banks and guarding the activities of fringe banks, though he had limited confidence in regulation because "innovators will always outpace regulators." Minsky's "fringe" banking is what McCulley and others refer to as the "shadow banking system," which Minsky defined as any leveraged lending without access to deposit insurance and/or the Fed's discount window. Ignoring the risks imposed by the shadow banking system makes its institutions prime targets for a classic run on liquidity, and such an outcome has in fact been unfolding since last August, particularly with regard to the run on Bear Stearns. The Fed had no choice but to open the discount window to investment banks in order to facilitate that company's takeover and prevent further runs. However, the intervention clearly demonstrated the need for a rethinking of the regulatory regime. More specifically, McCulley argued that, in return for providing financial institutions access to the Fed's discount window, the Fed must have the power to supervise and regulate their core capital requirements, risk and liquidity management, and so on, since the discount window constitutes a public good provided by the Fed's unique legal power to create unlimited deposits. As Minsky saw it, "The resurrection of the discount window as a normal source of bank reserves is a way of tightening Federal Reserve control over commercial banks." The experience of the last year not only validates Minsky's view that financial markets are endogenously unstable, but also suggests a disaster was in the making when the regulators themselves actively encouraged this inherent tendency instead of trying to contain it.

Jan Kregel

Session 2. Minsky and the Crisis

Moderator: GREG HANNSGEN, LEVY INSTITUTE
Speakers: JAN KREGEL, LEVY INSTITUTE;
ROBERT J. PARENTEAU, MACROSTRATEGY EDGE;
L. RANDALL WRAY, LEVY INSTITUTE

Kregel employed some aspects of Minsky's instability hypothesis to elucidate the relationship between hedge, speculative, and Ponzi financial units, using the idea of a "cushion" or margin of safety. Minsky would define the margin of safety as the difference between cash flows and cash commitments, and the size of those flows as determining whether the financial unit was hedge, speculative, or Ponzi. Adjustable-rate mortgages, or mortgages with a recess (below-market interest rate) period, were designed to look like hedge financing units in the initial period, before the rate was reset—that is, structured to look as though income were sufficient to meet the interest payments on the loan. The first point, Kregel argued, is that, at the reset, the margin of safety automatically disappeared, converting these hedge structures into Ponzi units. Second, equity in a mortgage loan—the down payment—represents a margin of safety against fluctuations in the value of the loan. However, many of the above structures were zero-down-payment loans backed by a second mortgage, so the margin of safety provided by the down payment was missing from these loans as well. Looking at the full range of the cash flows over the life of such mortgages, it becomes apparent that there is an automatic reduction in the margins, Kregel said, unless a number of conditions, plausible during a boom but highly implausible in a recession, are met: the borrower's income rises more rapidly than his cash commitment on the loan; interest rates remain stable or fall, allowing the borrower to refinance at a lower rate; and house prices continue to rise, so that in the event of the borrower's failure to pay, the property can be sold at a profit. Under these circumstances, the issuing bank's capital should provide a reliable margin of safety. However, as it is now well known, hardly any of these guarantees appeared on the banks' balance sheets. Kregel thus argued that, had any of these schemes been examined in terms of their margin of safety, the amount of risk involved would have been instantly apparent. He also noted the low quality of Ponzi mortgages. One such product, designed to "assist" families who could not otherwise afford home ownership, is based on the principle that inflation enables workers to receive annual wage increases of 6 or more percent. The borrower starts at a low monthly payment, then payments increase at a rate of 6–7 percent per year, since the product is designed to give credit for assumed wage increases and thus enable more to qualify for mortgages. Another example is the credit rating model of the global rating agency Fitch. Fitch admitted that if prices were to decline by 1–2 percent for an extended period, the model would completely break down.

Parenteau examined several macrofinance themes relating to the current state of U.S. financial markets from a Minskyan perspective. He noted that the emphasis on a Minsky "moment" is misplaced, since Minsky's hypothesis outlines an endogenous process in which tranquility (success) in financial markets is not sustainable, and will gradually turn into instability. Parenteau then identified the criteria necessary to determine whether this process has peaked. He noted that, given the current profit shares, which are close to their peak, the recession is unlikely to be over yet. The current round of tax cuts cover only half of the $300 billion gap between income and outlays in the household sector; and the significant early trade benefit of a falling dollar is unlikely soon, since six years of dollar depreciation against the Euro has thus far had little effect on the nominal trade deficit. Moreover, the Fed's policy of fine-tuning the rate of interest has yet to result in private market rates showing similar movement. This gives rise to another question: whether financial markets are self-adjusting. According to Keynes, they are not, because the price adjustment process does not work for capital equipment, housing, other durable goods, or financial assets. Parenteau maintained that, when the spot price of durable assets fall, collateral values and the net worth of their owners also fall, reducing owners' borrowing capacity. If, in addition, those durable assets are held with a great deal of leverage, the fall can force the sale of those assets, particularly if they are of a Ponzi nature. Hence, the decline in the spot price of a durable asset can end up increasing the net excess supply rather than reducing it. Finally, Parenteau raised the issue of whether the Fed's liquidity-injection policy has actually added liquidity to the market, and argued that because the Fed is buying riskier assets and selling treasuries, the policy has in fact resulted in only changing the composition of the Fed's balance sheet. While there is no formal constraint on the expansion of that balance sheet, in a climate of falling dollar value and soaring commodity prices, the investor would regard such an expansion as a reason to take flight from dollar-denominated assets. All these factors suggest that the Fed has limited room to maneuver.

Wray examined some of the causes of the current recession as features of a system defined by Minsky as "money manager capitalism," or an economic system dominated by finance. This system, Wray noted, has slowly evolved over the postwar period into a fragile structure characterized by two fundamental features: replacement of banking by securitization, and highly leveraged financial institutions. A simple way of looking at such developments is that market discipline requires fear, and if financial stability lasts for a long time, fear disappears and is replaced by greed, which unleashes reckless risk-taking and leads, ultimately, to fragility. The seeds of the resulting recession were in fact sown in the early 1950s, with the gradual removal of New Deal constraints, the aggressive use of rate changes by the Fed to fine-tune the economy, and financial innovations by nonbank institutions (a response, in part, to the Fed's interest rate changes) that made credit more elastic—all resulting from the relative stability of the postwar period. Banks' share of the financial system declined from 55 percent in 1960 to 23 percent in 2008, while the securities market share of private nonfinancial debt grew from 27 percent in 1980 to 55 percent in 2008. Wray noted that the size of securitized products as $10 trillion, of which three-quarters is in residential real estate. The conventional view on securities is that they greatly increase the efficiency of financial markets, democratize access to credit, and spread home ownership, and that a large pool of mortgages diversify risk, shifting it to those best able to bear it (e.g., hedge funds and pension funds). The problem is that the risks were never assessed, resulting in massive Ponzi schemes and huge losses.

Wray's figures provided some idea of the size and composition of these losses. The residential mortgage-backed security loss estimates range from $500 billion to $1 trillion (a 30 percent price decline in real estate resulting in a loss of perhaps $1 trillion incurred by those having to sell their houses). Home equity loans (far riskier than subprime loans because these debts are the last to be paid, after mortgage losses are covered) account for 12 to 19 percent of loans by large lenders—a very substantial loss. The question is, How will this loss feed into the real estate market? In California in the 1990s, house prices fell by 15 percent over five years, and it took another eight years for the market to recover, even with the force of a booming U.S. economy behind it. By that measure, foreclosures resulting from the current crisis will continue to rise, and will not hit the bottom for another six to eight years.

Session 3. Impact of the Crisis on the Economic Outlook

Moderator: W. RAY TOWLE, LEVY INSTITUTE
Speakers: RICHARD BERNER, MORGAN STANLEY;
JAMES W. PAULSEN, WELLS CAPITAL MANAGEMENT;
FRANK VENEROSO, VENEROSO ASSOCIATES, LLC

Berner observed that the current recession would restore the lost position of banks, and examined the implications of this change for financial markets. He noted that securitization has provided a more rapid mechanism for deleveraging because the subprime disruptions forced restoration, or "reintermediation," of the global banking system following its disintermediation—the removal of the middleman from financial transactions—during the housing bubble. As issuers unable to roll over maturing asset-backed commercial paper call on the banks for support, high-risk-weighted assets will reappear on bank balance sheets.

Berner examined the implications of this new financial framework. The globalization of finance has disbursed risk across borders, making it impossible, he maintained, to predict where and when contagion is likely to appear. The recent examples of Bear Stearns and, in the U.K., Northern Rock, demonstrate the importance of confidence to avoid bank runs. Unregulated credit creation has undermined sound underwriting, but risk management will be strengthened again. The new process will provide banks a chance to take back market share and recoup lost pricing power; but, Berner noted, this is a cyclical process, with another credit cycle following, one with lower volatility, reversing some of banks' share. There will be more regulation, perhaps even one regulatory body overseeing all large financial institutions. Finally, the policy response to significant changes in asset prices needs to be reevaluated. The conventional wisdom has been that policymakers cannot identify bubbles, and should merely aggressively mop up the damage after a bust; but the consensus is now moving away from this approach. One of Berner's concluding recommendations was the need for setting new standards of risk management under a broad range of circumstances, favorable as well as unfavorable, and for specifying criteria for capital holdings and the degree of leverage allowed in each type of financial activity.

Paulsen differed significantly from most of the other conference contributors in that he was optimistic about the prospects for a quick recovery, essentially because he saw the main problem as emanating from a lack of investor confidence rather than balance-sheet problems. He argued that every financial crisis consists of two elements: balance-sheet and income problems, and "fear," and that in the current crisis, the main difficulty lies in the restoration of confidence (i.e., overcoming fear). He explained his views on the nature of the crisis currently faced by posing a hypothetical question: if there were 10 bottles of water to choose from and you were told that one of them had fatal toxins in it but that the other nine were fine, would you buy any of the bottles? The plausible answer seems to be no. By the same token, if there were 5 percent toxic debt, even with strong balance-sheet and income statements backing the remaining 95 percent, there would be no bids on that remaining percentage—until the problem of fear was effectively addressed. Yet, most policy prescriptions are targeted at correcting balance-sheet and income problems using "traditional medicines"—interest rate changes and liquidity injections—with little weight given to policies designed to counter the "crisis of confidence." While the traditional policy has had limited effects, confidence-boosting Fed policies (e.g., buying triple-A paper to encourage investors to bid on them) show the way forward.

Paulsen also examined evidence from several U.S. financial indicators that point to the relative robustness of balance sheets and income statements. He noted that while bond prices have fallen in response to the recession, stocks have not, and are only 11 percent lower than their peak of five-and-a-half months ago. He also noted that the ratio of debt to net worth in the nonfinancial corporate sector is as low today as it has been since the 1960s; as for income statements, the ratio of cash assets to debt is at almost a 50-year high. Moreover, as this recession was widely forecast, economic agents have already adjusted their behavior in anticipation of its realization, thus preventing a prolonged downturn: four-quarter inventory change as a percentage of GDP is currently zero; corporations have the largest cash reserves relative to capital spending in more than four decades; and household liquid assets have grown by 10 percent in the last 12 months. Paulsen offered two reasons why the recession is approaching its end. Although the housing and auto sector fell by 13 percent in the fourth quarter year-on-year, it accounts for only 7 percent of the U.S. economy; the remaining 93 percent grew by almost 4 percent, suggesting the recession is concentrated in certain areas. What is required is a policy, fairly easy to manage, for preventing the collapse of the housing sector rather than its revival, and that alone would give a huge boost of about 1 percent to GDP.

Veneroso observed that, historically, crises resulting from credit losses all have one thing in common: the Ponzi nature of their debt structure. For example, the three great banking crises of 1929–33 all came about because the economy contracted after massive lending to borrowers who could not repay their loans. He noted that bad loans in 1989–92 equaled 5 percent of GDP, of which losses amounted to 2.5 percent. With the current crop of bad loans accounting for 30 percent of GDP, he suggested that the corresponding losses are likely to be between 10 and 15 percent of GDP, or approximately $2 trillion. Assuming even a mild recession, the bad loans and credit losses associated with $3 trillion of U.S. junk bonds and leveraged loans would alone total $660 billion and $400 billion, respectively.

Veneroso also discussed other potential sources of losses. He noted the strong demand for securitized products and leveraged structures from hedge funds, and referred to research showing that 26 percent of the big European banks' revenue derived from leveraged-up hedge funds. While the banks are writing down their losses, the losses from the hedge fund industry appear rather minimal. However, in the absence of regulation, it is quite likely that the industry's losses are hidden, and that they are potentially very large, even without taking into account losses in commodity derivatives—which will otherwise magnify them substantially. Veneroso described the derivatives boom as the worst bubble since the start of the Industrial Revolution more than 200 years ago, despite a U.S. recession and the most severe credit crisis in three generations. He pointed out that there are two kinds of bubbles, those with debt (e.g., the derivatives bubble) and those without (the dot-com boom). Given that the derivatives bubble is based on leverage of about $10 trillion, Veneroso said, the specter of a more extensive collapse and a prolonged recession is unlikely to disappear anytime soon.

Edward Chancellor

James K. Galbraith

Keynote Speaker: EDWARD CHANCELLOR, GRANTHAM, MAYO, VAN OTTERLOO, LLC

Chancellor discussed the insights offered by Minsky's work for analyzing the history of finance. He mentioned his reliance on Minsky to counter the conventional notion that bubbles cannot be analyzed; one can only deal with their aftermath. He also learned from Minsky how different institutions generate different behaviors; the interconnectedness of balance sheets and cash flows; and how product innovations will always find ways to circumvent regulatory barriers. He noted that Minsky's analysis has now discredited the value-at-risk models. These models encourage taking on more risk because they concentrate on recent times in a boom, avoiding the "tail risks" when things go bad and hence seriously underestimating the amount of risk involved. Chancellor expressed some reservations, however, about Minsky's analysis of the bust phase of a bubble, and asked whether setting interest rates appropriate for a credit bust in the United States could, for example, negatively affect economic conditions in China.

Keynote Speaker: JAMES K. GALBRAITH, LEVY INSTITUTE

Galbraith extended Minsky's financial instability hypothesis to relations between nation-states by formulating parallel mechanisms in international politics that generate Minskyan types of instability from stable conditions.

In Galbraith's analysis, the nation-state takes the place of the firm as the unit of observation. Just as all firms do not have the same relationship with the market, nation-states do not have symmetric relations with the global system. There may be one or several separate spheres of influence; within each there is a hierarchy, the apex occupied by a dominant power, or hegemon. A second tier consists of allies who benefit from the established system even though they do not control it, and who are strong enough to take control should the hegemon falter. The third tier is made up of peripheral countries, with limited access to credit, weak currencies, and limited sovereignty, since the hegemon's agents govern them either directly or indirectly. However, to maintain the hegemon's privileged technological and military position, its allies must be willing to continue providing it with finance, and the peripheries must remain relatively passive. If the costs to the allies of keeping the dominant power become greater than the benefits, the allies are likely to deny support. Moreover, the resistance in the periphery to the established order that forces the hegemon into an exhaustive struggle would also weaken its position.

Minsky's theory that "stability is destabilizing" is based on the relative importance of three sources of revenue: hedge, speculative, and Ponzi finance. Similarly, countries contesting for economic and technological dominance in a stable world are the analogs of hedge players; they are financed because they are expected to remain in power. A speculative profile occurs when the hegemon is challenged by an ally, or when it uses its power, particularly its military force, in a way that is challenging to other sovereign nations. For the hegemon to meet the challenge, the speculative position must be refinanced periodically under conditions unknown in advance. If it proves untenable

Robert J. Barbera

to maintain the privileged position, there is a transition to the Ponzi profile, which is not fully under the country's control. This happens because (1) the speculative position cannot be refinanced or (2) the challenge results in an outbreak of war (almost always much more costly than initially believed)—or, often, because of both. The hegemonic Ponzi position is inherently unstable, and, once the allies realize this as such, it is prone to collapse.

Galbraith employed this generalized Minsky framework to analyze key events of the past and the present. With regard to the current war in Iraq, he pointed out that the United States has encountered an unexpectedly serious regional rival (i.e., Iran) but is militarily too strong to be defeated. Rather, its longer-term weakness stems from its dependence on the willingness of its allies to continue financing the war because they perceive the benefits (e.g., security) to outweigh the costs.

Keynote Speaker: ROBERT J. BARBERA, ITG

Barbera addressed the inadequacy of the Taylor Rule to explain the Fed's behavior, on both the economic upswing and the downswing, and examined how the rule could be modified so that the results obtained were more in line with changes in the real world. His starting point was the standard Taylor equation, relating changes in the federal funds rate to, among other things, the difference between the natural and the desired rates of inflation. The rule predicts that the Fed would raise its rate if the actual rate of inflation were above the desired rate, and vice versa. Barbera proposed two modifications to the standard rule to make it a better vehicle for explaining the movements in the Fed rate. His first modification was to define the neutral rate of inflation—that is, the rate close enough to the market rate to ensure long-term sustainable growth. This is usually determined by how much consumers are willing to pay for a risk-free long-term interest rate, for which 10-year Treasury Inflation-protected Securities (TIPS) are often used as a proxy measure. Barbera suggested, however, that long-term inflation expectations are more accurately reflected in the TIPS five-year forward yield, inferred by subtracting the five-year TIPS yield from the 10-year TIPS yield. What remains is the neutral risk-free real long-term rate. His second modification to the Taylor Rule was to include an additional term for risk captured in the spread between Treasury and risky bonds, which brings into the equation the influences of Minsky's insight concerning attitudes toward risk. Barbera presented evidence that the modified equation provides results that more closely match observed Fed behavior in periods of ample investment opportunity due to its more accurate reflection of the neutral rate and, more important, its actual behavior during business downturns, when investment opportunities are scarce.

Session 4. Financial Market Regulation-Reregulation

Moderator: JAN KREGEL, LEVY INSTITUTE

Speakers: WILLIAM KURT BLACK, UNIVERSITY OF MISSOURI–KANSAS CITY; MARTIN MAYER, BROOKINGS INSTITUTION

Black examined the current crisis from a legal perspective—specifically, how regulatory failures allowed a criminogenic environment. He noted how a variety of very common financial practices could, from a legal stand, be classified as fraud, and suggested how such frauds are related to the transition from speculative to Ponzi finance, and could be plausibly interpreted as its legal analog. Black illustrated the characteristics of fraudulent finance with the loan structure offered by a typical savings and loan firm: zero down payments, all fees taken into the firm's coffers up front, no personal guarantees to borrowers, and lax lending standards, with loans going to borrowers with little wealth and at high risk for bankruptcy. These are speculative projects that appear very attractive because of one important feature: grossly inflated appraisals based on the fraudulent misrepresentation of the firm's worth. Typically, an outside auditor, a top-tier firm, comes in to look at a company's accounts, finds losses well beyond its market value but, for a price, restates its true value, enabling the company to not only cover its losses but also to show a large gain. This is often done with a massive loan that contains an equity kicker, for example, an ownership position in a developer's project offered in return for lower interest charges. Given the relative absence of penal norms, such Ponzi frauds are not risky at all—indeed, they are a sure thing, and difficult to prosecute. Black noted that, of 35,000 suspicious activity reports filed with the Securities and Exchange Commission (SEC) each year, only 200 are prosecuted, and pointed out that neither the Fed nor the SEC have a trained white-collar criminologist on board, even though the latter is primarily a law-enforcement entity. He also argued that fraud actually accelerates after the "Minsky moment," when the speculative project becomes a Ponzi scheme, because the greater need for refinancing is realized by a heavier reliance on fraud.

Mayer addressed the shortcomings of the modeling tools used for the analysis of financial markets, and of computerized market trading, dealing with the important question of whether computers can go beyond impressive logical calculations, and be imbued with the human capacity for judgment. He noted that today's markets continuously generate an immensely enlarged catalogue of prices, and an immense variety of factors in setting and changing those prices, at a speed beyond human comprehension. Yet, the function of the market has not changed: markets find and report prices for securities and commodities, and, Mayer argued, it is by no means clear that exponentially increased trading provides better price information. Computerized markets resulted from the new and dominant emphases on probability and diversification, both of which appear susceptible to mathematical modeling. Central to this approach is a shift from investment in individual securities to investment in portfolios. Mayer argued that diversification devalues knowledge by diminishing the role of judgment and limiting the contribution of money managers. Statistical analyses of portfolio volatility, and the anticipated range of prices for the portfolio as a whole, are substituted for knowledge. Judging the prospects of the company issuing the stock becomes secondary to the role of the stock within a larger strategy. Mayer drew an analogy to a bright child who solves a textbook math problem by correctly answering that the sailboat is traveling at 143 miles per hour but that it is no business of his that sailboats cannot go that fast. Today, one buys a commodities index not because of a belief that commodity prices will rise but because it correlates negatively with stock price movements. The market becomes a consumer, not a supplier, of information, and the point of the exercise is no longer the allocation of resources, which at present grossly favors the financial sector, but the profits earned by the participants.

Dimitri B. Papadimitriou and Maurice D. Hinchey

Keynote Speaker: MAURICE D. HINCHEY, U.S. HOUSE OF REPRESENTATIVES (D-NY)

Hinchey discussed the devastating economic consequences of the current crisis in several key areas of particular concern to American middle-class families, and suggested some urgent policy measures to deal with its immediate effects.

He cited short-term data indicating a rise in unemployment, in the number of people without health insurance or Social Security benefits, and in the number of those dependent on food coupons. He described the U.S. economy as being in a recession and, without policy intervention, on the verge of a depression rivaling that in the 1930s. Hinchey noted several causes for the current severe contraction: spending on the Iraq War (estimated at $3 trillion), which takes away funds that could be used to stimulate domestic job creation; tax cuts, mostly for the top 1 percent of households, financed by government borrowing to the tune of $1.6 trillion; market manipulation by hedge funds; and oil speculation. He observed that hedge funds account for 20–30 percent of U.S.-dollar trade, and cited estimates that between 7 and 10 percent of them fail each year due to fraudulent activities. Yet, there is no regulation, or any requirement to register them. Hinchey also noted that current oil prices do not reflect the state of supply and demand; in fact, U.S. demand for oil has gone down. Oil price increases are related to the funds pouring billions of dollars into the purchase of commodities contracts as a hedge against the falling dollar. He argued that the repeal of the Glass-Steagall Act of 1933, which separated investment from commercial banking, and its substitution of legislation abandoning the distinction, passed by Congress and signed into law by President Clinton in 1999, played a crucial role in bringing about the recession by allowing nonbanks to engage in risky mortgage lending practices. The repeal of the current finance legislation is among his proposed counterpolicies, which also include withdrawing from Iraq, abandoning the Bush tax cuts, regulating hedge funds and commodities speculation, expanding the food stamp program and extending unemployment benefits for those out of work longer than seven weeks, promoting greater reliance on solar energy, and implementing a larger economic stimulus package.

New Strategic Analysis

Fiscal Stimulus: Is More Needed?

DIMITRI B. PAPADIMITRIOU, GREG HANNSGEN, and GENNARO ZEZZA

There are calls from most quarters for the implementation of a fiscal stimulus plan to pull the U.S. economy out of recession, but one limited in size and duration. In this new Strategic Analysis, President Dimitri B. Papadimitriou and Research Scholars Greg Hannsgen and Gennaro Zezza argue that the stimulus package should be much larger than the $150 million proposed by the government, and that it should apply over a longer period, especially if the slowdown proves longer than currently expected.

They obtain projections based on various assumptions, some of which are standard to the Institute's Strategic Analysis (e.g., the Congressional Budget Office assumption of a moderate increase in the government deficit); others relate to the authors' relatively "optimistic" baseline scenario (e.g., home prices will rise with inflation and oil prices will not increase). The authors then compare the impacts of different fiscal plans in terms of the loss of output each would impose on the economy. This loss is measured by the gap between each plan's impact on GDP and potential output, obtained from the long-term trend of GDP, that is, the long-term moving averages of real GDP growth.

The authors note that the impact of the recently approved stimulus package of $150 billion (about 1 percent of GDP) will be *temporary*—a one-time transfer to the private sector, mostly in the form of tax rebates, beginning in the second quarter of 2008. This would stimulate real GDP, relative to the baseline, by 0.3 percent. However, the economy will suffer an equivalent *negative* fiscal shock in the next quarter once the stimulus is removed, and output will quickly fall back to its previous growth rate, resulting in a change of less than 0.1 percent of GDP after one year. This raises the question of whether a larger fiscal stimulus could moderate the recession. Judging by the size of the fiscal stimulus (in the form of tax cuts) applied during the 2000–01 recession, the stimulus must be larger than 1 percent of GDP.

The authors' next projection assumes a $600 billion package in the form of net transfers or tax cuts—$150 billion per quarter for four successive quarters, starting in the third quarter of 2008. This policy would raise GDP by 1.2 percent above its baseline projection but would still be insufficient to overcome the estimated 4 percent fall in GDP below potential, and for the same reason as before: a negative fiscal shock once the stimulus is eliminated.

However, if the stimulus is in the form of government expenditure on goods and services instead of net transfers, the projection suggests output loss is at least a full 1 percent less than in each of the four quarters. This is because government expenditures on hospitals, roads, and so on are, unlike transfers, part of GDP, affecting it directly to the full extent, because of the multiplier effect of additional rounds of demand and expenditure.

For the complete text, go to www.levy.org/pubs/sa_apr_08.pdf.

New Public Policy Brief

Financial Markets Meltdown: What Can We Learn from Minsky?

L. RANDALL WRAY

Public Policy Brief No. 94

A version of this paper was presented during Session 2 of the Institute's 17th Annual Hyman P. Minsky Conference, and is summarized on page 7 of this issue of the *Report*. For the complete text, go to www.levy.org/pubs/ppb_94.pdf.

New Working Papers

Can Robbery and Other Theft Help Explain the Textbook Currency-demand Puzzle? Two Dreadful Models of Money Demand with an Endogenous Probability of Crime

GREG HANNSGEN

Working Paper No. 529

When they walk up to an automatic teller machine (ATM), most people do not spend much time thinking about exactly how much cash to get. Yet economists have models that provide exact predictions of how much cash individuals should hold. The simple model developed in the 1950s by William Baumol and James Tobin does not yield very accurate predictions of how much cash people have in their wallets and purses. In a recent blog entry, Harvard economist N. Gregory Mankiw cites the example of an economist who spends $10 per day in cash, needs 10 minutes to make a trip to the ATM, values her time at $60 per hour, and earns 5 percent on her investments. This economist should hold $600 in cash on an average day, according to the model. A more typical U.S. individual, one earning the average wage for a production worker, should have held about $551 in cash in 1995. Most production workers did not possess this much, at least according to data from a Federal Reserve survey, which found that the average person held $100.

What factors determine how much cash people have? The Baumol-Tobin model takes into account the return that one could earn by investing instead of holding cash, and the cost of the time and fees involved in a trip to a bank, or, in today's world, to an ATM. In this working paper, Research Scholar Greg Hannsgen extends the model to include the chance that the money a person holds will be lost or stolen, but the predictions of the model are still very high.

Hannsgen's extension of the Baumol-Tobin model incorporates two new features: first, the probability that you will be robbed depends on the amount of money you are carrying. Second, Hannsgen includes costs related to robbery other than losing money, which include injuries. (About one-third of robbery victims are injured.)

The author presents two such models. One is dynamic, which means that it shows how the prospect of being injured or traumatized or having less savings in the future affects current decisions. The other, a new version of the Baumol-Tobin model, provides numbers, showing exactly how much the fear of robbery increases cash demand. Hannsgen shows that even when conservative estimates of the costs of robbery are used and the amount of cash on hand has modest effects on robbery probabilities, dread of robbery can greatly reduce the amount a rational person would hold—to as little as $76 in 1995 for the crime rates reported in the International Crime Victims Survey. Extending his calculations to 2005, Hannsgen finds that reduced crime rates, among other factors, greatly increase the amount of cash a rational agent would hold over 1995 levels.

For the complete text, go to www.levy.org/pubs/wp_529.pdf.

Changes in the U.S. Financial System and the Subprime Crisis

JAN KREGEL

Working Paper No. 530

Senior Scholar Jan Kregel, University of Missouri–Kansas City, traces the evolution of housing finance in the United States from the deregulation of the financial system in the 1970s to the breakdown of the savings and loan industry, highlighting the forces beyond the present housing finance and mortgage crisis and their impact on the overall financial system.

Kregel notes how banking in the secure real estate world coded as *3-6-3* (pay 3 percent on deposits, lend mortgages at 6 percent, and hit the golf course at 3 pm) changed dramatically in the 1970s, when the U.S. Congress deregulated the financial system by allowing commercial banks to compete for deposits with savings and loans. The new lenders—the investment banks—did not keep the mortgage loans on the balance sheet, and created tradable mortgage assets. The problem they faced, however, was that, unlike bonds issued by IBM, for example, mortgages are not uniform; they differ by borrower credit history, types of housing, and so on. Therefore, the solution required a structure based on investment decisions that somehow circumvent credit decisions. Information on the loan-to-value ratio of borrowers (e.g., increases in home value, long-term income prospects, and ability to service debt) was used to arrange mortgage security into specific income flows of different maturity called "tranches." These ranged from low- to high-risk, sequentially paying the least risky tranch a larger share of the cash flows from mortgages, with the lowest share going to the most risky. However, in order to sell these securities to investors, financial institutions brought in credit-rating agencies to design equity cushions considered investment grade, though usually through the agency with the least costly credit-enhancing requirements. The absence of limitations, such as falling prices in the housing market, encouraged the agencies to provide less conservative assessments, partly to secure future business, and so the practice contributed to the overall decline of credit rating standards. With the fall in housing prices, the agencies realized that their ratings of mortgage securities were excessively optimistic and therefore began to downgrade them below investment grade, leading many investors to sell them and thus forcing down housing demand and prices even further.

For the complete text, go to www.levy.org/pubs/wp_530.pdf.

The International Monetary (Non-)Order and the "Global Capital Flows Paradox"

JÖRG BIBOW

Working Paper No. 531

This working paper by Research Scholar Jörg Bibow, Skidmore College, investigates the paradox of current account surpluses among countries in the developing world; their net capital exports, mainly to the United States; and the resulting dollar glut. The author examines the hypothesis that systematic deficiencies in the international monetary and financial order are the root cause of today's crisis.

Bibow notes that with the abandonment of the gold standard in favor of the Bretton Woods system, the United States proved sufficiently flexible to provide dollar reserves to the rest of the world. That regime failed because of dollar abundance when Europe feared that currency revaluation would jeopardize its export-led reconstruction. This gave way to what Bibow calls an international monetary "non-order," with a floating exchange rate regime that was supposed to make countries more equal, but one in which the U.S. dollar retained its reserve currency status—leading to an explosion in U.S. dollar holdings during the last 10 years or so.

The global economy has enjoyed a period of record growth since 2003 that may seem surprising, Bibow notes, since the world's second- and third-largest economies, Japan and Germany, are solely reliant on exports, and the Asian economies, following the 1997 debt crisis, continue to run current account surpluses (i.e., exporting rather than importing). The answer, says Bibow, lies in the U.S. spending growth in excess of U.S. income growth, financed by a sharp rise in the private household debt. Consumer debt, particularly mortgage debt, Bibow maintains, was the ultimate driving force of the boom.

Bibow argues that Asian surplus balances reflect a "dollar glut" held by the Asian central banks as a hedge against the risk of capital outflows (experienced during the Asian crisis), and further examines the opportunity cost of such a policy in terms of missed alternatives. He notes that measuring the cost of this "insurance premium" policy in terms of the spread between U.S. Treasuries and the yield on domestic assets sold by central banks implies, misleadingly, low "fiscal cost"; it suggests that the developing world should maintain huge safety buffers in the form of low-yielding foreign assets. He also notes that the development justification for net capital exports has turned on its head the view that foreign investment would augment domestic saving for development, thereby allowing faster growth. This view implies that the developing world should forego potentially higher domestic investment and/or consumption today on market terms that do not offer any attractive rewards in terms of future consumption. An alternative choice for development would be based on allowing currency appreciation and stimulating domestic demand.

For the complete text, go to www.levy.org/pubs/wp_531.pdf.

Old Wine in a New Bottle: Subprime Mortgage Crisis—Causes and Consequences

MICHAEL MAH-HUI LIM

Working Paper No. 532

In this working paper, Michael Lim, Nippon Foundation, Malaysia, explains the linkages that spread the effects of the subprime mortgage crisis to the broader U.S. economy, and to the rest of the world, and argues that the financial strategy that produced the current recession is similar to the one that led to the Asian crisis of the late 1990s.

Lim discusses several types of imbalances resulting from the U.S. housing bubble. One is the large current account surpluses of Asian countries—a response to the massive capital outflow that led to the Asian crisis—which have gone to support the consumption habits of U.S. households. In 2006, Japan held the most U.S. debt, with $612 billion, followed by China, with $420 billion. In 2007, 93 percent of the U.S. current account deficit of $790 billion was financed by the combined current account surpluses of China, Japan, Germany, and Saudi Arabia. Most of these surpluses have gone into funding asset-backed securities issues since 2004. Another type of imbalance centers on the increased disparities in income and wealth. Despite phenomenal growth, China's income inequality has increased markedly over the last two decades; its Gini coefficient rose from 0.310 to 0.415 over 1985–2001. Similarly, the World Bank estimates the share of China's GDP going to labor fell from 53 percent in 1998 to 41 percent in 2005; private consumption as a percentage of GDP declined from 47 percent in 1992 to 37 percent in 2006. These figures, Lim suggests, point to underconsumption as a consequence of market-driven growth. Finally, the bubble encouraged sectoral imbalances to heavily favor the financial sector. The ratio of global financial assets to annual world output rose from 109 percent in 1980 to 316 percent in 2005.

Lim notes that China is seriously concerned that the recession in the United States and the entry of financial markets into a new era of more expensive borrowing and lower consumption could be devastating to its economy. If Europe as well as China and other emerging countries were to increase domestic spending, they could stave off a worldwide recession and allow for a gradual reduction, rather than a free fall, of the U.S. dollar, which would have disastrous consequences for all.

For the complete text, go to www.levy.org/pubs/wp_532.pdf.

The Discrete Charm of the Washington Consensus

JAN KREGEL

Working Paper No. 533

Senior Scholar Jan Kregel, University of Missouri–Kansas City, examines the role played by the Washington Consensus development strategy—based on integration into the global trading system—in Latin American economies. The author discusses the various factors responsible for periods of development success and failure in the region, particularly when the Washington Consensus was the dominant development doctrine. Moreover, he considers the limits to the successful application of that doctrine, and proposes an alternative development strategy.

The author points out that the Latin American strategy based on the export of primary commodities came to an end when World War II cut off imports of essential industrial goods from Europe, giving rise to import substitution industrialization (ISI) based on domestic demand growth and the safeguarding of domestic industry. The ISI approach performed positively for a quarter of a century, then failed beginning in the 1970s. The increasing globalization of financial flows resulted in a sharp increase in external debt, undermining the new approach and leading, ultimately, to the Latin American debt and hyperinflation crisis of the 1980s. The ISI strategy itself came under attack for the perverse rent-seeking incentives industrial protection created. Together, these factors paved the way for the adoption of the Washington Consensus, which was based on policies designed to attract international capital flows sufficient to repay the region's outstanding debts. Kregel points out that development policies of the 1980s and 1990s were grounded in the use of an exchange rate anchor, but they only succeeded in the latter decade, after measures were taken to attract foreign capital. He argues that success was not sustainable because the reliance on overvalued exchange rates, and the high levels of capital inflows impeded growth and employment. Thus, Latin America's opening up to external capital flows has been the major cause of the demise of both import substitution and the Washington Consensus. However, as an alternative, the developing countries made a plea, in the Havana Charter, for an exemption from opening their markets to manufactured goods from developed countries, and for the adoption of government guarantees of full employment, but both initiatives have been strongly opposed by the U.S. Congress.

For the complete text, go to www.levy.org/pubs/wp_533.pdf.

Argentina: A Case Study on the *Plan Jefes y Jefas de Hogar Desocupados*, or the Employment Road to Economic Recovery

DANIEL KOSTZER

Working Paper No. 534

Argentina introduced a massive employment-generating program, the Program for Unemployed Male and Female Heads of Households Plan, commonly known as *Jefes*, after a period of pro-market policies led to a debt crisis in 2001. In this working paper, Daniel Kostzer, United Nations Development Program, Buenos Aires, explores how the state's participation in the program as employer of last resort (ELR) allowed Argentina to recover from one of the worst economic crises in its history.

Inspired by the ELR programs proposed by certain post-Keynesian institutions, Argentina introduced a similar one in early 2002 that was aimed at reducing poverty and unemployment while

boosting demand following two years of recession. Kostzer notes that using the Keynesian multiplier to assess the program's impact shows that, in the midst of the crisis, eligible households spent most of their earned income. Even taking into account that part of the income would be used to pay past debts, this gave a significant boost to domestic demand for consumer goods. Moreover, given the policy support for domestic output expansion, these groups' marginal propensity to import was also low, implying a multiplier effect of 2.53 for the medium term. This was very important in an economy that had been in recession for four years, since every 1 percent of GDP invested in the program resulted in 2.53 percent of growth. Kostzer further notes that, although the program accounted for less than 1 percent of GDP and only 4.9 percent of the annual government budget, its impacts were considerable in many respects. First, the plan had a gender bias toward female employment: 71 percent of its beneficiaries were women, 60 percent of which were single heads of households, the difference attributable to participation by the household member with the least chance of getting a job. Second, 20 percent of the participants did not complete primary school, and 90 percent were below the poverty line. Finally, almost 750,000 beneficiaries have been reinserted into the formal labor market since the initiation of the plan. From May 2003 to 2006, the number of unemployed fell from three million to 1.3 million, and minimum wage purchasing power more than doubled between December 2001 and the end of 2006.
For the complete text, go to www.levy.org/pubs/wp_534.pdf.

Statistical Matching Using Propensity Scores: Theory and Application to the Levy Institute Measure of Economic Well-Being

HYUNSUB KUM and THOMAS MASTERSON
Working Paper No. 535

Statistical matching is a technique used in the Levy Institute Measure of Economic Well-Being (LIMEW) to merge two data sets that contain unique sets of information about households in order to produce a synthetic data set containing comprehensive information about households. In this new working paper, Hyunsub Kum, Seoul National University, South Korea, and Research Scholar Thomas Masterson describe various types of statistical matching procedures and specify the criteria used to choose the specific type used in the LIMEW: constrained statistical matching (CSM) using propensity scoring.

Statistical matching is used in a wide variety of applications in both economics and the biological sciences. Different uses require different techniques, however. When attempting to produce a comprehensive measure of economic well-being that can be used for the purposes of describing the distribution of well-being among U.S. households, care must be taken to reproduce the original distributions of the variables of interest as closely as possible. In CSM, all of the records in the donor file (e.g., income data) are matched to records in the recipient file (e.g., demographic data), and all records in the recipient file receive a match from the donor file. The result is a richer file of information on individual units—in this case, U.S. households.

The authors describe the various approaches for determining the best match between specific records in each data set. Propensity score matching uses a regression technique that produces an unbiased score that can be compared between the two data sets for matching purposes. The authors illustrate the technique using the match between the 2002 Annual Demographic Supplement (ADS) and the 2001 Survey of Consumer Finances (SCF). The purpose of the matching is to produce a synthetic file based on the wealth information already present in the ADS and augmented by the wealth information present only in the SCF. The authors illustrate the quality of the resulting match by comparing the marginal and conditional distribution of the wealth variables in the original SCF file to their resulting marginal and conditional distributions in the synthetic file.
For the complete text, go to www.levy.org/pubs/wp_535.pdf.

Publications and Presentations

Publications and Presentations by Levy Institute Scholars

RANIA ANTONOPOULOS *Research Scholar*
Presentations: "Poverty Reduction and Job Creation Assessment of Active Labour Market Policies: The Case of South Africa's EPWP," seminar on Employment Impact Assessment, International Labour Organization, Geneva, March 18–19; "Macro-Micro Impacts of Public Job Creation: A Gender-informed Social Accounting Matrix Approach," at "International Conference on Employment Opportunities and Public Employment Policy in

Globalising India," Centre for Development Studies, Trivandrum, Kerala, India, April 3–5; "The *Right* to Work, the *Right Types* of Projects: A Gender Perspective," Graduate Faculty, New School for Social Research, New York, April 8; "The Job Deficit: Market Failure and Employment Guarantee Policies," "The Citizen City International Symposium on ELR," sponsored by the National Development Bank of Brazil and the Zero Unemployment Institute, Rio de Janeiro, May 9–10; "Can Public Job Creation Result in Pro-poor Growth and Gender Equality?" International Poverty Center, United Nations Development Programme, Brasília, Brazil, May 13.

JAMES K. GALBRAITH *Senior Scholar*

Publications: "Inequidad salarial en Cuba durante el Período Especial" (with L. Spagnolo and D. Munevar), *América Latina Hoy*, Vol. 48**,** April; "Pay Inequality in Turkey in the Neo-Liberal Era: 1980–2001" (with A. Elveren), UTIP Working Paper No. 49, April; "Digging a Hole," review of *Bad Money: Reckless Finance, Failed Politics, and the Global Crisis of American Capitalism* by Kevin Phillips, *The Texas Observer*, May 15.

Presentations: "The Political Economy of U.S.-China Relations," conference on "The Revival of Political Economy," Department of Economics, Drew University, Madison, N.J., February 9; "Globalization and Inequality," 10th International Conference on Globalization and the Problems of Development, Association of Economists of Latin America and the Caribbean and Cuban Association of Economics and Accountants (ANEC), Havana, March 6; "The Collapse of Monetarism and the Irrelevance of the New Monetary Consensus," 25th Annual Milton Friedman Distinguished Lecture, Marietta College, Ohio, March 31; "American Economic Inequality: A Brief Tour of Some Facts," conference on "Economic Inequality and the Hourglass Economy: The Decline of the Middle Class, The End of the American Dream?" McCormick Tribune Foundation Conference Series, Federal Reserve Bank of Chicago, May 2; "The Fed's *Real* Reaction Function: Monetary Policy, Inflation, Unemployment, Inequality," Political Economy Research Institute Conference in Honor of Jane D'Arista, Amherst, Mass., May 2–3.

KIJONG KIM *Research Scholar*

Presentation: Interview regarding the prospects of a rapid increase in consumer spending and loans in Georgia with Molly Corso, *Investor.ge*, May.

JAN KREGEL *Senior Scholar*

Publication: "The Continuing Policy Relevance of Keynes's General Theory," *Keynes for the Twenty-First Century: The Continuing Relevance of* The General Theory, M. Forstater and L. R. Wray, eds., Palgrave Macmillan, 2008.

Presentations: "Crisis e inestabilidad financiera internacional," X Encuentro Internacional de Economistas, "Globalización y Problemas del Desarrollo," Havana, March 3–7; "Some Overlooked Contributions to the Theory of Finance," Conference on Keynes's Economics and His Influences on Modern Economics, "The Keynesian Revolution Reassessed," Sophia University, Tokyo, March 18–19; "Using Minsky's Cushions of Safety to Understand the Subprime Mortgage Crisis," Department of Economics Graduate Seminar, School of Oriental and Asian Studies, University of London, April 23; presentation as co-convenor of the Expert Meeting of the Ford Foundation Research Group, "Financial Liberalization and Global Governance: The Role of International Entities," IBASE, Rio de Janeiro, May 8–9; "Using Minsky's Cushions of Safety to Understand the Subprime Mortgage Crisis in the United States," Facultad de Economia, Division de Estudios de Posgrado, Universidad Autónoma de México, Mexico City, May 19; "International Economic Environment and Policy Space for Domestic Resource Mobilization," Group of 24, Meeting of the Experts on the FfD Process, South Centre, Geneva, May 23–24.

THOMAS MASTERSON *Research Scholar*

Publications: "U.S. Economic Inequality and What We Can Do About It" (with S. Naidu), *Solidarity Economy: Building Alternatives for People and Planet: Papers and Reports from the 2007 U.S. Social Forum*, J. Allard, C. Davidson, and J. Matthaei, eds., ChangeMaker Publications, 2008; *Rural Poverty in Paraguay: Gender, Land Markets, and Productivity*, VDM Verlag Dr. Müller, 2008.

Presentation: "Globalization and Wages in the U.S. Labor Market," seminar sponsored by St. Francis College, Brooklyn, N.Y., March 31.

DIMITRI B. PAPADIMITRIOU *President*

Publications: "The Economic Contributions of Hyman Minsky: Varieties of Capitalism and Institutional Reform" (with L. R. Wray), in *Leading Contemporary Economists*, S. Pressman, ed., Routledge, 2008; Introduction (with L. R. Wray), in H. P. Minsky, *Stabilizing an Unstable Economy* and *John Maynard Keynes*, McGraw-Hill, 2008.

Presentations: Interview regarding Basel II with Nicholas Rummell, *Financial Week*, March 6; interview regarding Federal Reserve interventions during times of market trouble with Michael Derby, *Dow Jones Newswires*, March 14; interview regarding Bear Stearns liquidity problems with Mary Kane, *Washington Independent*, March 24; keynote speaker, "International Conference on Employment Opportunities and Public Employment Policy in Globalising India," Centre for Development Studies, Trivandrum, Kerala, India, April 3–5; interview regarding how people should spend their stimulus payment to help the local economy with Sarah Bradshaw, *Poughkeepsie Journal*, April 22; interview regarding what went wrong in the U.S. financial system with Kenneth Jost, *Congressional Quarterly*, April 22; interview regarding monetary policy and bank regulation with Ron Fink, *Financial Week*, April 24; interview regarding the latest Federal Reserve interest rate cut with Daniel Sturgeon, *Tokyo News*, April 30; interview regarding current research programs at The Levy Economics Institute with Christine Pizzuti, *Poughkeepsie Journal*, May 6.

JOEL PERLMANN *Senior Scholar*

Presentation: "American Jewish Opinion about the Future of the West Bank," annual meeting of the Association for Israel Studies, New York University, May 20.

EDWARD N. WOLFF *Senior Scholar*

Publication: "Ruggles, Richard (1916–2001)," in *The New Palgrave Dictionary of Economics*, Second Edition, S. N. Durlauf and L. E. Blume, eds., Palgrave Macmillan, 2008.

Presentations: "Accounting for Wealth in the Measurement of Household Income," The 2008 World Congress on National Accounts and Economic Performance Measures for Nations, Arlington, Va., May 13–17; "The Distribution of Wealth in the United States from 1983 to 2004: Inequality and Polarization," Research Workshop of the Israeli Science Foundation on Income Polarization, "Measurement, Determinants and Implications," Jerusalem, May 26–28.

L. RANDALL WRAY *Senior Scholar*

Publications: "The Continuing Legacy of John Maynard Keynes," in *Keynes for the Twenty-First Century: The Continuing Relevance of* The General Theory, M. Forstater and L. R. Wray, eds., Palgrave Macmillan, 2008; Introduction (with D. B. Papadimitriou), in H. P. Minsky, *Stabilizing an Unstable Economy* and *John Maynard Keynes*, McGraw-Hill, 2008; "Lessons from the Subprime Meltdown," *Challenge*, March–April; "Lecciones del hundimiento de las subprime," *Circus: Revista Argentina de Economia*, Vol. 1, No. 2, 2008; "Demand Constraints and Big Government," *Journal of Economic Issues*, Vol. 42, No. 1, March; "Some Reflections on the Current U.S. Financial Markets Meltdown," *Monthly Report* (The Vienna Institute for International Economic Studies), No. 5, May.

Presentations: Interview regarding local impacts of the recession with Ted Bell, *Kansas City Business Journal*, March 19; interview for feature on the flat tax with Rob Lowe, Fox News, WDAF, Kansas City, May 6; "Feast or Famine: Savings Gluts and Liquidity Shortages," International Monetary Conference, St. Croix, Virgin Islands, January 10–13; "Financial Markets Meltdown" and "How to Teach Money," Association for Institutional Thought annual meetings, Denver, April 23–26; lecture, "Employer of Last Resort," New School for Social Research, New York, April 15; interview regarding financial markets meltdown with Kenneth Jost, featured in "Financial Crisis: Did Lax Regulation Cause a Credit Meltdown?" *CQ Researcher*, May 9; "Estabilização macroeconômica e política de Empregador de Última Instância," Simposio Internacional Cidade Cidadã, Rio de Janeiro, May 9–10.

GENNARO ZEZZA *Research Scholar*

Publications: "U.S. Growth, the Housing Market, and the Distribution of Income," *Journal of Post Keynesian Economics*, Vol. 30, No. 3, Spring 2008; "The U.S. Housing Market: A Stock-flow Consistent Approach," *Ekonomia*, Vol. 10, No. 2, Winter 2007.

Recent Levy Institute Publications

Strategic Analysis

Fiscal Stimulus: Is More Needed?
DIMITRI B. PAPADIMITRIOU, GREG HANNSGEN,
and GENNARO ZEZZA
April 2008

The U.S. Economy: Is There a Way Out of the Woods?
WYNNE GODLEY, DIMITRI B. PAPADIMITRIOU,
GREG HANNSGEN, and GENNARO ZEZZA
November 2007

The U.S. Economy: What's Next?
WYNNE GODLEY, DIMITRI B. PAPADIMITRIOU,
and GENNARO ZEZZA
April 2007

Can Global Imbalances Continue? Policies for the U.S. Economy
DIMITRI B. PAPADIMITRIOU, GENNARO ZEZZA,
and GREG HANNSGEN
November 2006

Policy Notes

Securitization
HYMAN P. MINSKY
PREFACE AND AFTERWORD BY L. RANDALL WRAY
2008/2

The Collapse of Monetarism and the Irrelevance of the New Monetary Consensus
JAMES K. GALBRAITH
2008/1

The April AMT Shock: Tax Reform Advice for the New Majority
DIMITRI B. PAPADIMITRIOU and L. RANDALL WRAY
2007/1

The Burden of Aging: Much Ado about Nothing, or Little to Do about Something?
L. RANDALL WRAY
2006/5

Public Policy Briefs

Financial Markets Meltdown
What Can We Learn from Minsky?
L. RANDALL WRAY
No. 94, April 2008 (Highlights, No. 94A)

Minsky's Cushions of Safety
Systemic Risk and the Crisis in the U.S. Subprime Mortgage Market
JAN KREGEL
No. 93, January 2008 (Highlights, No. 93A)

The U.S. Credit Crunch of 2007
A Minsky Moment
CHARLES J. WHALEN
No. 92, October 2007 (Highlights, No. 92A)

Globalization and the Changing Trade Debate
Suggestions for a New Agenda
THOMAS I. PALLEY
No. 91, October 2007 (Highlights, No. 91A)

Levy Institute Measure of Economic Well-Being

How Well Off Are America's Elderly? A New Perspective
EDWARD N. WOLFF, AJIT ZACHARIAS, and HYUNSUB KUM
April 2007

Wealth and Economic Inequality: Who's at the Top of the Economic Ladder?
EDWARD N. WOLFF and AJIT ZACHARIAS
December 2006

Interim Report 2005: The Effects of Government Deficits and the 2001–02 Recession on Well-Being
EDWARD N. WOLFF, AJIT ZACHARIAS, and HYUNSUB KUM
May 2005

Economic Well-Being in U.S. Regions and the Red and Blue States
EDWARD N. WOLFF and AJIT ZACHARIAS
March 2005

The *Report* and all other Levy Institute publications are available online at www.levy.org.

The Levy Economics Institute of Bard College
Blithewood
PO Box 5000
Annandale-on-Hudson, NY 12504-5000

Address Service Requested