



Summary

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LETTER FROM THE PRESIDENT

To our readers:

This issue begins with our latest strategic analysis for Greece. Research Scholars Michalis Nikiforos and Gennaro Zezza, and I conclude that, despite modest improvements in some areas of the Greek economy, the continuation of austerity policies holds no promise of restoring Greece to growth or increasing employment in the medium term. We argue for an immediate public investment in job creation as a first step toward reversing the current social and economic crisis. In a related research project report co-authored with Research Analyst Taun Toay, we argue for the expansion and reformulation of community banking in Greece as a strategy to increase access to financial services, financing, and promote entrepreneurial activity. Also under the State of the US and World Economies program, several publications address the ongoing crisis in the eurozone.

Mario Tonveronachi offers his analysis of the European Central Bank (ECB) and the measures needed to create a single European financial market, specifically the creation of a common risk-free asset. Andrea Terzi discusses the evolution of the monetary union and how the intentions of the framers of the euro left it vulnerable to exactly the sort of crisis it faces today. He recommends the creation and trading of a Eurobond to broaden Europe's policy options. Research Associate Eckhard Hein and Daniel Detzer also offer a suite of policy alternatives to address the imbalances among member-states. Leaving Europe and turning to India, Research Associate Sunanda Sen discusses economic policy alternatives for India.

Under the Monetary Policy and Financial Structure program, Research Associate Jörg Bibow discusses his proposal for a Euro Treasury, adding his voice to the call to amend the scope of the ECB's role. Philip Pilkington makes a contribution to the discussion of endogenous money and the natural rate of interest debate, clarifying that the work of the late Levy Institute Distinguished Scholar Hyman P. Minsky does not fall into the loanable funds camp. Tanweer Akram and Anupam Das analyze the factors driving Japan's government bonds' low nominal yields.

The Distribution of Income and Wealth program contributes two papers. The first is a policy brief by Senior Scholar Ajit Zacharias and Research Scholars Thomas Masterson and

Kijong Kim in which they investigate the complex issues of gender, changing labor market conditions, and the public provisioning of child care in Korea using the Levy Institute Measure of Time and Income Poverty. They find that child-care subsidies have helped to reduce time poverty. Nikiforos examines the long-run fluctuations in growth and distribution through the prism of wage-and profit-led growth. The paper holds valuable insights for both practical policy concerns as well as the theoretical and empirical analysis of economic growth. The Gender Equality and the Economy program contributes an analysis by Ebru Kongar and Günseli Berik on the time-use trends among US parents and the impact of the Great Recession.

Returning to the ongoing crisis in Greece, Senior Scholar Rania Antonopoulos, Sofia Adam, Kim, Masterson, and I argue for an immediate response to unemployment with a proposal for a job guarantee program. Our analysis, included under the Employment Policy and Labor Markets program, shows that even a modest net public investment would lower unemployment and reduce the debt-to-GDP in the medium term.

The Immigration, Ethnicity, and Social Structure program includes a paper by Research Associate Yuval Elmelech on the demographic characteristics associated with public support, or lack of support, for redistributive policies in Israel, an important but infrequently studied topic.

Research Associate Martin Binder and Alex Coad contribute two working papers under the Economic Policy for the 21st Century program. The first examines the linkages between work and life satisfaction using structural vector autoregression techniques, while the second applies a panel quantile regression methodology to investigate heterogeneity in the relationship between unemployment and subjective well-being. The issue closes with a working paper by Hrishikesh Vinod, Research Associate Lekha S. Chakraborty, and Honey Karun in which they explore the role of deficits in India's interest rates using a maximum-entropy bootstrap method.

As always, I welcome your comments.

Dimitri B. Papadimitriou, *President*

Program: The State of the US and World Economies

Strategic Analysis

Will Tourism Save Greece?

DIMITRI B. PAPADIMITRIOU, MICHALIS NIKIFOROS, and GENNARO ZEZZA

Strategic Analysis, August 2014

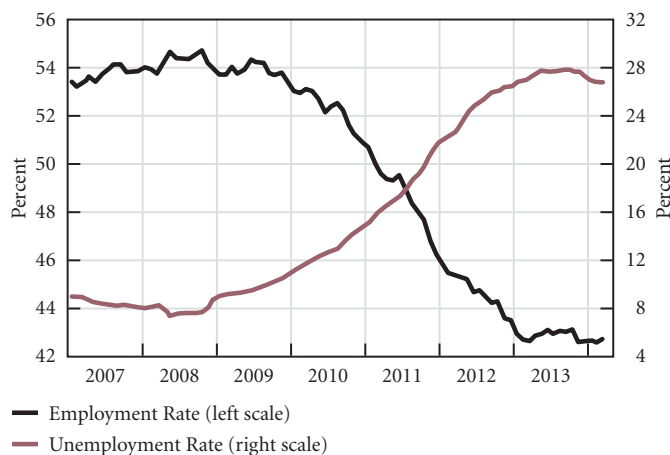
Levy Institute President Dimitri B. Papadimitriou and Research Scholars Michalis Nikiforos and Gennaro Zezza discuss Greece’s prospects for economic recovery if it continues to follow the troika’s prescription of fiscal austerity and internal devaluation aimed, ultimately, at increasing net exports. They argue that a decline in real and nominal wages will likely take some time to positively affect trade, and that, in the meantime, lower prices in areas such as tourism will not generate sufficient revenue to meet targets for a current account surplus. Overall, they conclude that a change in fiscal policy in the direction of lowering taxes and creating jobs is needed to

spur economic recovery in Greece. They begin their analysis with a review of the most recent International Monetary Fund’s (IMF) assessment of the Greek economy.

The 2014 IMF report commends Greece for achieving a primary surplus in 2013, notes a number of signs it counts as optimistic (e.g., a small reduction in unemployment and a smaller decline in quarterly GDP compared to previous years), and anticipates an annual GDP growth rate exceeding 2 percent. Despite these modest improvements, the IMF recommends that Greece continue to apply fiscal austerity to meet the troika’s requirements. The authors dismiss this characterization of the Greek economy, today and as forecast, as nothing more than wishful thinking. They argue that growth will not resume at anything like 2 percent unless one or more of the components of aggregate demand begin to increase. As the Greek economy remains depressed, and kept so by austerity policies, the required increase in demand is highly unlikely. The authors demonstrate that the decline in unemployment (Figure 1), for example, is not a result of new jobs but of such things as net migration out of Greece, probably consisting of “youth flight” from Greece and fewer immigrants entering the country looking for work (Figure 2). They predict that the long-term trend of a declining working-age population relative to the number of elderly will create a severe strain on Greece’s pension system unless steps are taken to reverse these trends.

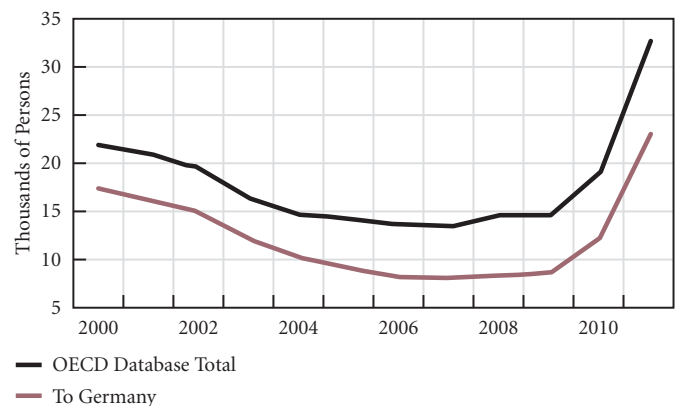
Examining the components of aggregate demand, the authors note a slower drop in real GDP owing to increased

Figure 1 Greece: Employment and Unemployment



Source: ElStat

Figure 2 Greece: Migration



Source: OECD International Migration Database

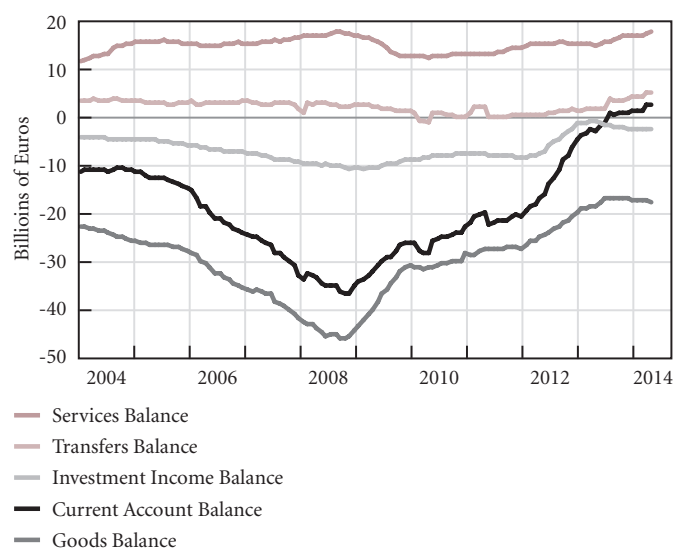
exports. The small contribution of consumption to GDP growth is difficult to reconcile with household income and wealth but might be the result of a slight increase in wages and a decline in the consumer price index, and/or an increase in government transfer payments. However, household deleveraging persists and private sector investment remains in free fall, albeit at a somewhat less harrowing rate of 7.9 percent. Further, the Greek banking system continues to be an obstacle to private sector investment, and therefore growth. Access to credit is blocked for all but the most creditworthy individuals and businesses. Nonperforming loans (NPLs), yet another symptom of Greece's debt deflation trap, continue to undermine the banking system, and therefore private investment. The authors call for a debt-relief policy to address NPLs and to provide relief for homeowners and indebted households through a combination of write-downs and government assumption of troubled mortgages. They conclude that the decline in GDP is largely due to a lack of investment, and the prospects for financing the needed investment remain bleak.

Turning to Greece's financial balances, the authors find that despite recent improvements, the troika's goal of achieving a current account balance in excess of 4 percent is highly unlikely given the historical evolution of the economy. Within this context, the authors present a comprehensive discussion

of the trends in the components of the current account (Figure 3). They note that the main contributors to an improved current account include a shrinking trade balance in goods, a decline in the net cost of borrowing from abroad, a larger net current transfer from abroad, and a relatively recent contribution from trade in services. Examining these factors in detail, the authors observe that the improvement in goods exports and imports is almost entirely a result of falling imports. Oil imports are the only component of trade in goods that show a strong recovery since 2008. The recent recovery in tourism is also having a small but positive impact in the balance of trade for services and a minimal impact on employment.

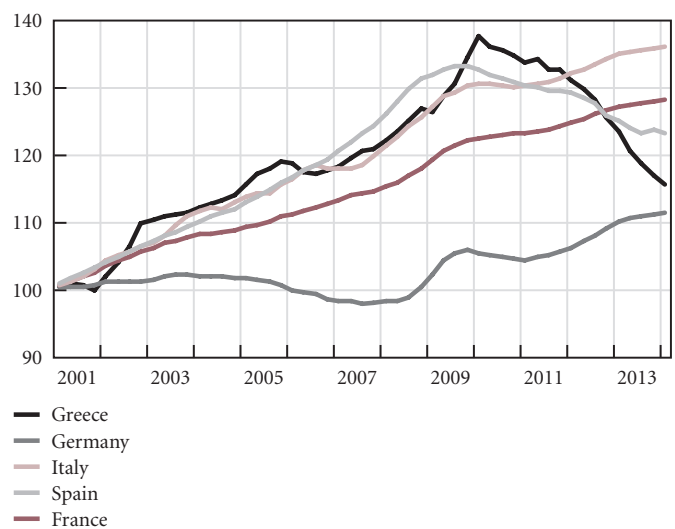
In the presence of these modest improvements in its financial balances, Greece has experienced the sharpest decline in wages of any country in the post-World War II era, with nominal wages nearly one-fourth lower, and real wages nearly 29 percent lower than their peak in 2010. Real wages are, the authors note, an unreliable measure of competitiveness (despite the troika's insistence to the contrary). The authors present a comparison of Greece's unit labor costs with several other eurozone countries. They find that Greece's current unit labor cost is slightly higher than Germany's but well below that of France, Spain, and Italy (Figure 4). Thus, the drastic drop in wages and labor costs appears to have had little measurable

Figure 3 Greece: Current Account and Its Components (Annual Moving Averages)



Source: Bank of Greece

Figure 4 Greece: Unit Labor Costs Index (2000=100)



Source: OECD

impact on trade. The authors recall that Greece had seen strong increases in productivity during the run-up to the Great Recession in 2007, but productivity rates fell as a result of decreased levels of output, and is unlikely to recover until aggregate demand begins to grow.

Greece remains mired in an economic depression—the rosy optimism of the IMF will not change this fact. If Greece is to return to economic growth, it must address unemployment and buoy households directly through fiscal policy. Increased domestic demand will not come from the private sector. Persistently high unemployment and depressed production continue to push Greece in the direction of deflation. The authors close with a call for an aggressive fiscal policy stance, including lower direct and indirect taxes and publicly funded job creation programs.

www.levyinstitute.org/pubs/sa_gr_8_14.pdf

Co-operative Banking in Greece: A Proposal for Rural Reinvestment and Urban Entrepreneurship

DIMITRI B. PAPANIMITRIOU and TAUN TOAY

Research Project Reports, July 2014

Reduced access to credit is one of the many obstacles faced by individuals and small businesses as the economic crisis continues in Greece. Despite the extraordinarily low benchmark rates set by the European Central Bank, individuals, small- and medium-size enterprises (SMEs), and start-ups often have no access to bank finance; or, when they do obtain a loan, it is at very high interest rates. Low-income individuals, who have historically had limited access to financial services, have been further excluded during the crisis. In this report, Levy Institute President Dimitri B. Papanimitriou and Research Analyst Taun Toay present a blueprint for a structured network of cooperative financial institutions (CFIs) in Greece, drawing on the experience of community development banks in the United States, cooperative banking in Europe, and micro-lending institutions in developing countries.

CFIs serve populations largely ignored by large, commercial financial services institutions: SMEs and low-income individuals and businesses that require relatively modest financing and basic banking services. A network of CFIs in Greece would provide access to credit, payments processing, and savings

opportunities in areas, urban as well as rural, where the major commercial banks—many still undercapitalized—do not offer such services.

CFIs, which comprise cooperative banks and savings and credit cooperatives, differ from commercial banks in their organizational structure and operational priorities in ways that make them well suited to serving the aforementioned populations. CFIs draw their capital from their depositor-members as well as governments, nonprofits, investors, and the like—they do not rely on capital markets for funding. This leads to a stricter stance regarding risk. Further, member-owned cooperatives tend to employ a relationship banking model that, unlike commercial banks, strengthens their bias against risky loans. CFIs also provide a variety of community services, ranging from the payment mechanism to financial education, and are able to identify and finance projects in distressed or underserved communities that are too small or difficult to price for the larger commercial banks.

In terms of access to financial services, CFIs typically offer most, but not necessarily all, of the following banking services: a payments system for depositors, including deposit insurance and debit and credit card services; secure depositories for savings and transaction account balances; household financing (e.g., mortgage, auto, and consumer loans); commercial banking services to start-ups and SMEs (loans, payroll services, business advice, etc.); investment banking services for businesses and households; and financial education, advice, and asset management services for households. The specific services offered by a CFI depends on the population it intends to serve and the gaps in the financial services market in a specific community or region.

The authors note that as a cooperative enterprise, the structure of CFIs typically has a number of internal checks to reduce the incidence of nepotism or corruption in its operations, which are common problems in the Greek financial system. Operational transparency and the direct connection between savings and loans encourage a greater degree of scrutiny. CFIs also tend to be more stable because of stricter capitalization, asset quality, and lending requirements. As a result, they are less likely to freeze credit, except under the most unusual circumstances.

Papanimitriou and Toay next offer a historical overview of co-operative banking in the United States, Europe, and Greece. They note that cooperative banks are a relatively recent addition

to the Greek financial system and saw their largest expansion during the 1990s and 2000s. They propose procedural guidelines for a reorganized network of Greek cooperative banks dedicated to serving communities and regions that have been neglected by traditional commercial financial institutions. The authors also note that a key component absent from the current cooperative banking system is a formal network among the banks themselves and access to lending windows.

Their proposal for a three-tier community banking system includes establishing a central cooperative bank (CCB) that would be overseen by the Bank of Greece. The CCB would be capitalized with public funds and its mission would be to perform the routine functions of a central bank (chartering, regulating, and supervising CFIs). Below the CCB would be a tier of regional banks that would assess regional economic conditions and coordinate the activities of CFIs within their respective regions. The third, or local, tier would comprise existing and new cooperative banks that would have an opportunity to obtain a charter within the cooperative banking system, allowing them to access the lending windows and technology operated by the regional tier. This structure, the authors argue, would allow CFIs to conform to European best practices in banking, reduce the inefficiencies in the current system, and extend access to financial services to currently underserved communities and regions.

www.levyinstitute.org/pubs/rpr_july_14.pdf

The ECB and the Single European Financial Market: A Proposal to Repair Half of a Flawed Design

MARIO TONVERONACHI

Public Policy Brief No. 137, September 2014

The flaws of the Maastricht Treaty are a frequent object of commentary, but, as yet, Europe remains unable—or, perhaps more accurately, unwilling—to address these flaws. The European project will remain unfinished and the ability of the European Central Bank (ECB) to implement effective monetary policies will continue to be hobbled. As Mario Tonveronachi, University of Siena, observes in this public policy brief, Europe has a currency union, but this does not mean that the region has achieved a single financial market—an essential element for a functioning union. He reminds us that a single European market

requires pricing in relation to common risk-free assets rather than in relation to a collection of individual, idiosyncratic sovereign rates. Similarly, financial operators must have access to the same risk-free assets for trading and liquidity operations. The euro provides neither of these functions, and thus, while there has been a measure of convergence, a single financial market, and the financial integration it represents, remains unachieved.

Tonveronachi sees little prospect for the integration necessary to create a single market given the prevailing social and political environment in Europe. In this brief, Tonveronachi reviews efforts made thus far to achieve greater European fiscal, banking, economic, and political unity. While attitudes and conditions may change in the years ahead, with no alternative to federalization other than a breakup of the euro, the near-term prospects for greater integration are dim. Tonveronachi takes these conditions as “given,” but rather than sharing in the policy paralysis expressed by so many, he offers a proposal to use the ECB’s operations to establish a single financial market within the existing fiscal design and treaties.

The broad strokes of his proposal are that the ECB issue debt certificates in an amount and tenor covering the maturity spectrum that would create common risk-free assets for all of the participating (European) markets. Financial intermediaries holding national debt would have the opportunity to exchange the riskier national debt in their portfolios for ECB debt certificates. The ECB would therefore acquire the debt of euro-area countries in proportion to the contributions of each country to the capital of the ECB, and national private financial institutions would hold debt certificates issued by the ECB. The ECB would end its acceptance of sovereign national bonds as collateral for its refinancing operations and thereafter limit its operations to debt certificates. This would provide strong incentives for financial intermediaries to swap riskier sovereign bonds for less risky, lower-yielding debt certificates, effectively creating a single risk-free yield curve for financial intermediaries. Thus, the ECB would be able to base its open market operations on debt certificates without creating technical obstacles or political resistance. In order to limit the use of debt certificates to their intended purposes (i.e., as a benchmark, not as a financing vehicle), they would only be made available to euro-area markets, and holding or trading the certificates would be limited to the euro-area countries and the financial firms incorporated in those countries.

This proposal has the virtue of falling within the scope of current treaties, and therefore many of the objections typically raised against such proposals do not apply. For example, acquiring secondary sovereign debt complies with existing treaties. Further, the ECB faces no monetary constraint as the issuer of debt certificates (it does not operate under a balanced budget constraint) and would benefit from its seigniorage position. Concerns regarding losses and insufficient capital are, the author notes, remnants of gold standard banking. Modern central banks, provided they issue paper (i.e., “state”) money, do not face such limitations, so long as inflation is contained.

Tonveronachi’s proposal offers an immediate step toward realizing the broader goals of the euro and resolving the work left unfinished in the Maastricht Treaty. By inviting euro-area countries to create a single risk-free asset within the current institutional architecture, financial intermediaries and national governments would effectively tie themselves to a common risk-free yield curve, reduce their individual risk, and begin to reap some of the benefits of operating under a single European financial system. Implementing his proposal might offer the most compelling argument for greater integration on several fronts simultaneously: self-interested participation in an institution that provides greater stability through voluntary integration and a common benchmark.

www.levyinstitute.org/pubs/ppb_137.pdf

When Good Intentions Pave the Road to Hell: Monetization Fears and Europe’s Narrowing Options

ANDREA TERZI

Working Paper No. 810, June 2014

Research Associate Andrea Terzi offers a proposal for a eurobond backed by the European Central Bank (ECB) to expand the current policy space; reduce, if not end, the risk of default on public debt created by the “no monetization” rule of the euro; and undertake net government spending for the benefit of Europe as a whole without creating a federal government or violating the Fiscal Compact.

Terzi recalls how the financial crisis in 2008–09 laid bare the unpleasant reality that all euro-denominated government debt was not equally safe. The remarkable convergence of

long-term government bond yields in the precrisis years quickly unraveled as the global financial markets embraced the chilling possibility of public debt defaults in Europe. Further, the realization that national government debt would not necessarily be backstopped by the ECB stoked fears of a eurozone breakup. Risk came back in the form of widening spreads, not unlike the exchange rate risks of years past. The response of the European Union (EU)—loan agreements, austerity, and so on—was ineffective until ECB President Mario Draghi announced a policy of outright monetary transactions. The crisis also revealed a crucial consequence of the emphasis placed on price stability by the architects of the euro: it left open the possibility of instability resulting from the impact of cyclical conditions on credit-sensitive public debt. This, the author explains, was no accident.

The architects of the euro placed monetary sovereignty in the hands of a single EU body, with no taxing or spending authority, to prevent individual governments from “inflating debt away,” restrain spending, and provide, it was argued, a stable environment for long-term growth. However, Terzi argues that the euro architects left out two critical elements for achieving growth and stability: a way to prevent eurozone debt from becoming credit sensitive and the means to ensure a sufficient flow of net financial assets into the private sector through government spending. The challenge today, he observes, is to find a way to restore growth and job creation within the limits of the current framework.

The author recalls that much of the debate surrounding European monetary unification focused on whether or not the eurozone qualified as, or could ever become, an optimal currency area (OCA). Terzi reviews the arguments for OCA endogeneity (i.e., creating an OCA will lead to the convergence needed to sustain an OCA) and the creation of a single currency to replace a system of fixed exchange rates. Proponents argued that removing national monetary sovereignty would be a blessing. However, their perspective failed to account for potential solvency issues, as it was argued these would not be a concern for member-states complying with the rules limiting deficits. Terzi recalls the concerns raised by Charles Goodhart regarding the sustainability of the eurozone should the link between money and government be broken. He observes that Goodhart’s arguments were misunderstood by many policymakers.

Terzi next discusses the theoretical framework within which removing monetary sovereignty was seen as beneficial. Eurozone countries, as users rather than creators of the currency in which they issue debt, were expected to adopt the fiscal discipline needed for convergence to occur. As the title of his paper suggests, it was the intention of the framers of the euro to create a union that by its nature created a budget constraint, and a strict separation between the fiscal activities of member governments and the ECB. Terzi then reviews some of the ways a national government can skirt the institutional prohibitions against monetizing national debt. However, such activities leave open the possibility of member-states undermining the strength of the euro, and limited policy responses for the central bank.

Terzi argues that the task today is to broaden Europe's options and achieve prosperity and full employment. Europe need not create a federal government or modify the Fiscal Compact if it can agree to issue a eurobond that the ECB can trade at a policy rate it chooses, use the funds from the eurobond to expand net government spending (with the consent of eurozone members and allocated pro quota), and exclude this additional spending from the calculation of member countries' national public debt ceilings. Policymakers, Terzi concludes, have nothing to fear from the creation of a eurobond—it is the missing element of a shared policy to restore growth and employment in the eurozone.

www.levyinstitute.org/pubs/wp_810.pdf

Economic Policy in India: For Economic Stimulus, or for Austerity and Volatility?

SUNANDA SEN and ZICO DASGUPTA

Working Paper No. 813, August 2014

Research Associate Sunanda Sen and Zico DasGupta, Jamia Millia Islamia, Academy of International Studies, examine the theoretical weaknesses of monetarism and analyze the consequences of the “sound finance” and austerity policies as implemented in India. They argue that these policies not only constrained the recovery of output and employment but also failed to achieve price stability. Drawing on lessons from both southern Europe and India, the authors conclude that monetarist policy measures contributed to stagnation, greater price volatility, and increased macroeconomic instability during

the global recession. They begin their analysis with a discussion of the competing monetarist and Keynesian policy frameworks.

Broadly stated, on one side are monetarist policies primarily concerned with controlling inflation, and on the other, Keynesian policies targeting growth and full employment, with an emphasis on aggregate demand as the primary means to achieve these goals. Both approaches hold promoting financial stability as a policy goal. However, the authors note that policies which single-mindedly pursue controlling inflation often sacrifice growth and employment. They cite the case of southern Europe as ample evidence of the contractionary effects of neoliberal monetarist economic policies. When the global crisis hit Europe, they recall, institutions such as the European Central Bank, European Union, and International Monetary Fund embarked on austerity policies that made the crisis more severe for debt-ridden countries such as Greece, Ireland, and Portugal.

Turning to the case of monetarist policies in India, the authors find that austerity-inspired policies have not been limited to crisis economies in Europe but have also been applied in developing countries, many of which have begun the process of integration in international finance markets. In the case of India, several rounds of economic policy reforms have accompanied financial deregulation and subsequent rising inflows of international capital. Among these reforms, the Fiscal Responsibility and Budget Management Act (FRBMA) of 2003 barred the central bank of India from funding fiscal deficits and required the national government to go to the private market to fund such deficits.

Sen and DasGupta next examine the role of FRBMA in limiting India's debt-to-GDP ratio and in reducing the role of public expenditures as a policy tool. They recall that the rapid increase in borrowing from the private sector to fund public spending led to a proportionate increase in expenditures on interest payments, with interest payments eventually becoming the largest expenditure in India's budget. In addition, two trends—rising interest payments and a preference for austerity policies—led to a sharp reduction in the share of public spending devoted to development, well below levels seen in the 1980s.

The authors note that in the absence of expansionary fiscal policy, monetary policy can be used to stimulate the economy. However, monetarism is the accepted dogma among many Indian policymakers and has been implemented primarily

to control inflation. The value of financial assets has been protected in the midst of price volatility in the real economy and the liberalization of capital flows, which provided the market liquidity for speculation. In addition, financial markets offered higher profits, and thus investment in the real economy suffered. This pattern is especially visible in the corporate sector, where short-term profits through speculation became a greater share of investment than tangible assets. In discussing the links between austerity under deregulated finance and capital mobility, the authors also note that monetarist policies often give rise to exchange rate volatility. They argue that, on balance, monetarist policies in the form of austerity, deregulation, and increased financialization contributed to the stagnation of India's real economy.

In conclusion, India's experience has been different from that of the eurozone in that it has not been a high-debtor country for many years and has not needed to implement fiscal austerity. Rather, India has seen a gradual shift toward neoliberal policies over the course of the last two decades, which has resulted in a tacit deemphasis on goals such as growth and the distribution of income. India, the authors conclude, is thus a classic case of compliance with the goals of global finance, whereas many countries in the eurozone periphery were compelled to adopt such policies.

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Coping with Imbalances in the Euro Area: Policy Alternatives Addressing Divergences and Disparities between Member Countries

ECKHARD HEIN and DANIEL DETZER

Working Paper No. 816, September 2014

Research Associate Eckhard Hein and Daniel Detzer, Berlin School of Economics and Law, provide an analysis of imbalances in the euro area and present policy proposals to address issues that include differential inflation, divergence in competitiveness, and the associated current account imbalances within the euro area. The goal of their policy recommendations is to generate sustainable and high demand and output growth in the euro area, increase noninflationary employment, and avoid an export-led mercantilist or debt-led consumption boom. The authors present a framework within which to address these

issues, building on Anthony Thirlwall's balance-of-payments-constrained growth rate (BPCGR). They begin by developing their theoretical framework and model, and then examine the economic policies implied by their results. The paper concludes with a discussion of coordinated alternative policies for the euro area and a strategy for restructuring the peripheral and crisis countries to encourage convergence.

By applying Thirlwall's BPCGR model to the euro area, Hein and Detzer identify several possible sources of current account imbalances with the currency union. These include GDP growth differentials that exceed those rates implied by their BPCGRs, inflation differentials that are too high, and quality competitiveness. To avoid or reverse such imbalances, the authors argue that policies should focus on generating noninflationary demand growth at, or as close as possible to, the euro-area BPCGR, which would involve rebalancing growth rates within the region. In addition, the less developed euro-area countries would have to grow above their respective BPCGRs until they caught up with the more advanced economies. Therefore, the euro area would need a stable source of financing to manage the current account deficits of these countries.

In terms of monetary policy, the authors advise against central banks using interest rates to address unemployment in the short run and inflation in the long run because of the cost and distributional effects of such policies. Instead, central banks, including the European Central Bank (ECB), should focus on providing low real interest rates in credit and financial markets. It is also critical that the ECB act as both the lender of last resort for the banking system and guarantee the public debt of euro-area member-states. The authors caution that their proposal differs from many of the proposals for "euro bonds," which often leave out substantial portions of national debt without backing or are subject to financial market speculation. In terms of wage and income policy, Hein and Detzer recommend nominal stabilization; specifically, to support stable inflation rates. Nominal wages should rise with the long-run average growth of productivity in a national economy as well as the target rate of inflation for the euro area as a whole. Such a policy would contribute to creating equal inflation rates across the region. However, rebalancing the current accounts within the euro area will require policy to depart from this norm: wages in surplus countries would have to

exceed the norm and wages in deficit countries would have to undershoot it. This will entail coordinated wage bargaining at the macro level and abandoning deregulation and flexibilization policies in labor markets.

A euro-area minimum wage is also a means to achieve wage, income, and rebalancing (i.e., inflation/growth) targets. However, fiscal policy will be the primary means by which real stabilization, full employment, and a more equal distribution of disposable income will be achieved in the euro area. The authors argue that accelerating public debt-to-GDP ratios will not pose a problem so long as nominal interest rates remain below nominal GDP growth rates, which will prevent increased government debt from benefiting rentiers. The authors propose that these permanent government deficits should be broadly directed toward public infrastructure, education, and environmentally sustainable purposes. And tax policies should also be configured to support the goal of a more equitable distribution of income.

Hein and Detzer caution that current account imbalances will persist so long as periphery countries are in the process of catching up. To facilitate sustainable growth in the periphery, industrial restructuring, among other policies, would reduce the risk of credit-driven bubbles and consumption booms while helping to improve existing industries and develop new export markets. Addressing the disparities in the euro area will, the authors conclude, require a coordinated and sustained effort, but there are viable alternatives to the current policy regime.

www.levyinstitute.org/pubs/wp_816.pdf

Program: Monetary Policy and Financial Structure

The Euro Treasury Plan

JÖRG BIBOW

Public Policy Brief No. 135, August 2014

Research Associate Jörg Bibow proposes a Euro Treasury to repair the flaw inherent in the euro regime: the surrender of member-states' control of their currencies while retaining responsibility for fiscal policy, leaving them vulnerable to sovereign debt crises. As has been pointed out elsewhere, this leaves European member-states in a position similar to US state governments: they are "users" of a common currency and must engage in procyclical fiscal policy when their economy contracts. However, member-states do not have access to the combination of a treasury and central bank at the level of a central government. It is this point that Bibow addresses in his proposal.

There are limits to what the European Central Bank (ECB) is willing and legally able to accomplish on its own. The legality of some of its recent quasi-fiscal measures have been questioned in some quarters. Bibow argues that by pairing the ECB with a Euro Treasury for the purpose of pooling future public investment addresses some of the core flaws in the current structure of the euro project. However, the establishment of a central treasury faces daunting political obstacles.

The author's proposal addresses some of these obstacles by designing the Euro Treasury to avoid functioning as a transfer union. The Euro Treasury would not engage directly in spending. Rather, it would provide grants to member-states, funded by Euro Treasury securities, based on each country's share of the eurozone's GDP. The Euro Treasury would have the power tax to pay for servicing the debt it issues. However, member-states' tax contributions would again be proportionate to their share of eurozone GDP, and as such there would be no danger of the proposal being criticized as a redistribution scheme. In addition, the expenditures would follow strict rules and thus avoid any discretionary fiscal policy. Further, national governments would collectively determine the scale of public investment spending to be funded by Euro Treasury securities, as well as any future growth in annual expenditures. Within these bounds, the long-term goal would be to reach a common

level of debt (the author suggests 60 percent) as a share of eurozone GDP by the end of the 21st century.

Bibow's plan would provide member-states with a stable, long-term funding base from which to finance infrastructure, while also providing a much-needed fiscal boost to the eurozone in the near term. By taking on debt at the center, individual national governments would gain the fiscal space needed to achieve budget balance without stifling their respective economies. Over time, the author argues, it seems likely that high-interest national debt would shift to low-interest Euro Treasury debt, further expanding the ability of national governments to engage in counter-cyclical fiscal policy when needed. He also suggests that a Euro Treasury would have the ability to support weaker national treasuries in times of severe recession or to respond to other shocks. Further, the safe assets created by a Euro Treasury would provide the eurozone with an essential element for any future banking union. A banking union, the author notes, would also require something like an ECB–Euro Treasury combination to navigate system-wide financial crises and to provide what he describes as “the ultimate fiscal backstop” to a common resolution authority. The presence of a Euro Treasury would mean that individual, and often vulnerable, national treasuries would not have to weather future crises alone.

The eurozone economy has not returned to robust growth in output or employment under the current policy regime. While fears of a dissolution of the union have quieted, at least for the moment, the structural vulnerabilities at the core of the euro remain. Bibow cautions that we must prepare for crises of similar magnitude in the future. Toward this end, a Euro Treasury is a prudent and necessary step to ensure the short- and long-term viability of the eurozone economy.

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Endogenous Money and the Natural Rate of Interest: The Reemergence of Liquidity Preference and Animal Spirits in the Post-Keynesian Theory of Capital Markets

PHILIP PILKINGTON

Working Paper No. 817, September 2014

Research Associate Philip Pilkington examines some of the basic incompatibilities between the mainstream and post-

Keynesian views of capital markets. Mainstream economists while accepting much of the post-Keynesian endogenous money theory, still hold with the idea of a natural rate of interest. Pilkington argues that the natural rate of interest theory implicitly relies upon the efficient market hypothesis (EMH). In contrast, post-Keynesians reject both the natural rate of interest theory and the EMH, to which it is wed, arguing that the world is characterized by uncertainty, and that Keynesian liquidity preferences and animal spirits dominate. The author's analysis offers insights into a recent debate regarding the work of the late Levy Institute Distinguished Scholar Hyman P. Minsky. Some have argued that Minsky did not reject the “loanable funds” view of financial markets. Pilkington shows that when Minsky's work is examined against a backdrop of the natural rate of interest version of the loanable funds theory, it is clear that his work does not fall into the loanable funds camp.

The author begins with a survey of the debate regarding endogenous money and the natural rate of interest. He observes that in light of recent developments in mainstream economic theory, the debate between post-Keynesian endogenous money theorists and their New Consensus opponents is no longer about whether the money supply curve is horizontal or vertical but about whether or not there exists a natural rate of interest that central banks can exploit to foster full employment and price stability. Ironically, this takes the debate back decades and involves many of the same questions about the primacy of monetary or fiscal policy in managing economic output. Pilkington argues that this in turn brings us to the discussion as to whether or not the natural rate of interest hypothesis is sufficient to resurrect the loanable funds model. It is clear that Keynes's rejection of a natural rate of interest, and likewise the rejection by today's post-Keynesian theorists, puts them at odds with New Consensus theorists. The author recalls that unlike the mainstream marginalist theory of investment, Keynesians integrate animal spirits and expectations—subjective judgments—in their understanding of the marginal efficiency of capital.

Pilkington notes that this reveals an important aspect of the natural rate of interest theory: it assumes perfectly rational actors faithfully obeying price signals, not animal spirits. Thus, the natural rate of interest theory rests on the same foundations as the EMH of capital markets: a world of perfect information

and no market crashes. The author argues that if we introduce risk into the pricing process, we must assume that interest rates on investments completely and accurately reflect the natural rate of interest plus the objective level of risk associated with each investment decision. This implies that a series of interest rates set by capital markets will collectively define a stable equilibrium growth path, with stable prices. However, if interest rates reflect the liquidity preferences of investors rather than probabilistic risks, then an element of subjectivity is introduced and the money rate of interest may diverge from the natural rate resulting in over- or underinvestment.

Pilkington contends that the essence of the loanable funds theory, in contrast to post-Keynesian theory, is not whether interest rates rise endogenously as a result of economic activity but whether there is a series of natural rates of interest that balances the demand and supply of loanable funds in a way that does lead to inflation or financial instability. Clearly, Minsky's rejection of the natural rate of interest hypothesis puts him squarely within the camp of post-Keynesian endogenous money theorists. The author notes that Minsky's focus on liquidity preference and his emphasis on the uncertainties confronted by investors further set him apart from the natural rate of interest theorists. However, the interpretation of Minsky's work has been a subject of intense debate.

To resolve this debate, Pilkington demonstrates that Minsky emphasized Keynes's liquidity preference, choosing to focus on the dimensions of risk and uncertainty in investor behavior that lead to interest rates being set by speculative behavior rather than perfect prices. Minsky and Keynes both offered interest rate theories that critiqued the natural rate hypothesis by introducing confidence and uncertainty into their analysis. This is evident in Minsky's treatment of capital asset pricing, wherein a speculative view of pricing dominates. Thus, Minsky departs fundamentally from the marginalist/neoclassical paradigm of "rational" actors, and therefore stands unambiguously apart from loanable funds theorists.

www.levyinstitute.org/pubs/wp_817.pdf

The Determinants of Long-Term Japanese Government Bonds' Low Nominal Yields

TANWEER AKRAM and ANUPAM DAS

Working Paper No. 818, October 2014

Tanweer Akram and Anupam Das, Mount Royal University, examine the empirical factors that explain the consistently low yields on Japan's long-term sovereign debt despite decades of sluggish economic growth and mounting public debt; specifically, government bonds' nominal yields. Mainstream monetary theory tells us that this is impossible and bond ratings agencies appear to agree, as they have repeatedly lowered the rating on Japan's sovereign debt.

Drawing on economic history, Modern Money Theory, and the work of John Maynard Keynes, Akram and Das explain that because Japan is a sovereign currency issuer, it has the ability to meet its debt obligations and to use a number of policy tools to maintain low long-term nominal rates. To demonstrate these points they provide an overview of Japan's economy since the 1990s, an analysis of the Bank of Japan's (BOJ) policy responses, a discussion of the determinants of long-term government bond yields, a review of Keynes's contributions regarding bond yields, and an econometric model to test their theoretical understanding of forces that influence long-term nominal yields of Japanese government bonds (JGBs).

Japan's economy has stagnated since the collapse of asset prices in the early 1990s. It has shown the slowest growth of all of the G-7 countries for more than two decades, leaving it with persistent fiscal deficits, growing sovereign debt, weak effective demand, declining real wages, and stagnant industrial production, to name only a few. Persistent deflationary trends both reflect and contribute to the weak condition of the Japanese economy. The BOJ's role has been to use the tools in its monetary policy arsenal to quell rates and enable the government to continue to operate (i.e., engage in expansionary fiscal policy), which is made possible by low nominal yields on the long-term debt issued. The BOJ has used a variety of policy tools, including a zero interest rate policy, quantitative easing, traditional policy rate-setting measures, asset purchases, exchange trade funds, and Japanese real estate investment trusts. Under the leadership of Prime Minister Shinzo Abe, government policy has been focused on expansive monetary policy, fiscal consolidation following the current fiscal stimulus, and

a variety of measures intended to increase productivity. These policies rely on Japan's ability to finance its debt at low nominal long-term rates. The authors next provide a framework for understanding how Japan's government bonds work in practice and how this reflects its status as a sovereign currency issuer.

The JGBs' low nominal yields rely on several factors. Japan is a monetarily sovereign country that issues debt in its own currency; the BOJ controls short-term interest rates by setting the policy rate accordingly and by engaging in asset purchases, forward guidance, and communication; low inflation and persistent deflationary pressures also contribute to low nominal yields; and demand for government debt, primarily from domestic financial institutions, remains high. By decomposing long-term bond yields into short-term interest rates and forward interest rates, Akram and Das find that while rising debt-to-GDP ratios could lead to inflation and the depreciation of the yen, this possibility has not presented an operational obstacle to Japan in terms of meeting its debt obligations.

Turning to the relationship between short- and long-term rates, a topic taken up in detail by Keynes and later by Senior Scholar Jan Kregel, the authors find that fundamental uncertainty about the future and the impact of short-term realization on long-term expectations can move long-term interest rates toward short-term rates, and the factors that influence short-term rates also drive investors' long-term rates. Akram and Das then present two empirical models to test their theoretical understanding of the behavior of JGBs' nominal yields.

These empirical results broadly refute the mainstream understanding of the relationship between long-term yields and debt. Among their findings, the authors note that nominal yields are extremely sensitive to short-term rates, but fairly insensitive to the pace of economic activity. Further, government debt ratios and net borrowing do not exert upward pressure on JGBs' nominal yields. On balance, Akram and Das conclude that the experience of Japan demonstrates that Keynes and, more recently, arguments grounded in Modern Money Theory, such as those of Senior Scholar L. Randall Wray, provide a sound and empirically based guide to monetary and fiscal policy, not mainstream monetarism.

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Program: The Distribution of Income and Wealth

Can Child-care Subsidies Reduce Poverty? Assessing the Korean Experience Using the Levy Institute Measure of Time and Income Poverty

AJIT ZACHARIAS, THOMAS MASTERSON, and KIJONG KIM
Public Policy Brief No. 136, August 2014

Korea's child-care voucher program was originally developed in response to the changing pressures on Korean households with children. Korea's labor market, once notable for its tradition of lifelong employment, was transformed by the Asian financial crisis of 1997 and is now characterized by greater job insecurity, temporary work, and a much larger number of dual-earner households. In recent decades, women have increasingly joined the paid labor force, but they have continued to shoulder a disproportionate share of household work, putting additional time pressure on all working women, especially mothers. Drawing on findings presented in the research project report *The Measurement of Time and Income Poverty in Korea*, Senior Scholar Ajit Zacharias and Research Scholars Thomas Masterson and Kijong Kim show that, the combined effect of these trends is that many employed Korean women effectively face a "double shift"—paid employment followed by a second shift of household production. Recognizing these trends, and the adverse effects they held for women, children, and working families, Korea in 1992 implemented the Child Care Subsidy program to reduce the financial burdens on low-income families associated with purchasing child-care services.

In 2013, the child-care voucher program was revised. The new law makes the voucher system universal, but it offers a fixed benefit for all families with children age six and under. While this has expanded access to child care, it may have the unintended consequence of reducing access to child care for some of the most time-stressed families, particularly dual-income households with young children. Thus, the impact of child-care services on time and income poverty represents a critical linkage for assessing the impact of the program, a question well suited to the Levy Institute Measure of Time Income Poverty, or LIMTIP.

LIMTIP, unlike standard measures of poverty, recognizes that, in addition to income, household economic well-being

relies upon the daily activities required to meet basic needs (e.g., preparing meals, doing household chores, and caring for children). When members of a household lack the time to adequately complete these tasks, they must either purchase substitutes (such as child-care services) or do without. These individuals suffer from time poverty. Households that earn enough money not to be officially classified as poor, but with time deficits too large to be covered by their income, are referred to as the “hidden poor.”

The overall LIMTIP poverty rate for employed households (i.e., households in which the head and/or spouse is employed) in 2008 was 7.9 percent, versus the official rate of 2.6 percent. The gap implies that Korea’s hidden poor represent more than two million individuals. Dual-income households saw the greatest increase in poverty when measured using LIMTIP—four times the official poverty rate. The analysis shows that outsourcing of child care (partly funded by vouchers) reduced the overall LIMTIP rate to 7.5 percent and reduced the number of hidden poor to 1.8 million. While these results show that the problem of time poverty extends beyond child-care needs, the impact of public provisioning through the voucher program clearly has a positive impact on families with children. This can be more clearly seen in the case of families that outsourced child care: their measured income poverty rate would have been substantially higher if outsourcing was not accounted for (5.9 percent versus 3.1 percent).

Based on these and other findings, the authors recommend changes to the universal voucher program, including increased funding, to restore some of the progressivity of the means-tested policy; incentives to increase the supply of child care; and greater support for related programs (e.g., after-school programs) to create access to child-care services. In addition, because child care is embedded in larger economic and cultural conditions, the authors also call for greater efforts to improve working conditions, and for Korea to engage in a national dialogue on gender, work, and family issues. While they recognize that an improved child-care voucher program will not solve the gender disparities or time deficits of all working families in Korea, it is an immediate and practical step that would simultaneously address the needs of children, support working families, and foster gender equality.

www.levyinstitute.org/pubs/ppb_136.pdf

Distribution-led Growth in the Long Run

MICHALIS NIKIFOROS

Working Paper No. 814, September 2014

Research Scholar Michalis Nikiforos examines the long-run patterns in growth and income distribution from the perspectives of wage- and profit-led growth. He argues that the relationship between the distribution of income and growth changes over time. Nikiforos proposes a linear version of Richard M. Goodwin’s predator-prey model to explain the transformation of economies from profit-led to wage-led growth periods. The paper also discusses the model and its results as they relate to the “double movement” process described by Karl Polanyi, the Kuznets curve, and the theory of long swings proposed by Michał Kalecki and Albert Hirschman.

Nikiforos begins with a Kaleckian model of growth and distribution, as distribution is one of the main determinants of growth within this framework. He recalls that when an increase in the wage share boosts demand and growth, an economy is said to be wage-led, whereas an increase in the profit share that has the same effect leads to a profit-led economy. However, the question of whether or not an economy can be said to be completely profit- or wage-led—an issue that has received remarkably little attention in the literature—must be answered in the negative, as it would require that maximum growth rate would be achieved when the wage or profit share reaches zero. Thus, Nikiforos outlines the two main premises of his argument: the distribution of income is unstable over time, and distribution-led growth “contains the seeds of its own destruction.” He then specifies a stripped-down Kaleckian growth model wherein the economy response to changes in the distribution of income depends on the propensity to save or invest out of profits. The model is a linear version of Goodwin’s predator-prey model, but with the roles of the predator and prey reversed. In this model, it is the growth rate potential (and, indirectly, the growth rate itself) that plays the role of the predator, and the distribution of income that serves as the prey. Rather than critique Goodwin’s formulation, it highlights the possibility that the direction of the cycle can change at different frequencies.

The model shows that the main determinants of macroeconomic performance are aggregate demand and the distribution of income, and distribution is exogenous in the short

run. The results also reveal that the reaction of the utilization and growth rates in relation to the distribution of income play especially important roles. This is in fact the central variable of his paper: the degree to which an economy is distribution-led (referred to by the author as “distribution-ledness”). The author next examines a long-running version of his model in which the distribution of income reflects the state of power relations between workers and capitalists. His analysis of the evolution of this relationship relies on the assumptions that power relations are unstable, the direction of the distribution depends on the distribution-ledness, and there are lagged effects in the distribution of income.

Nikiforos next investigates the propensities to invest and save, and the behavior of the system in the long run. His model demonstrates how power relations interact with distributional outcomes (i.e., greater power leads to a greater potential to add to power). However, he observes countervailing forces that can drive the system toward a steady state of distribution. His results suggest that there are periods when an economy is wage-led and periods when it is profit-led. This finding has implications for how empirical analyses are conducted. Specifically, the use of time-series analysis to determine if an economy is profit- or wage-led over an extended period may not account for important changes in distribution and growth within the period under analysis.

The author notes the correspondence between his findings and social dynamics, or the pendulum-like double movement identified by Polanyi. Similarities are also noted with regard to the work of Simon Kuznets and other theorists who dealt with long-run theories of fluctuation in the distribution of income; notably, Hirshman, Kalecki, Joseph Schumpeter, Hyman P. Minsky, and Charles P. Kindleberger. Given the renewed interest in the distribution of income, Nikiforos’s timely contribution speaks to practical policy concerns as well as the theoretical and empirical analysis of economic growth. www.levyinstitute.org/pubs/wp_814.pdf

Program: Gender Equality and the Economy

Time Use of Parents in the United States: What Difference Did the Great Recession Make?

EBRU KONGAR and GÜNSELİ BERİK

Working Paper No. 812, August 2014

Research Associate Ebru Kongar and Günseli Berik, University of Utah, analyze the gendered patterns in time use in paid and unpaid work in the US labor force between 2003 and 2012, critically evaluating what has been referred to as the “mancession” narrative (i.e., the comparatively higher rates of male unemployment) of the 2007–9 recession. As such, Kongar and Berik’s paper contributes to a growing feminist and heterodox literature that challenges this narrative and identifies the demographic groups that were most affected by the recession. The authors conduct a trend analysis using the American Time Use Survey from 2003–12 to examine the impact of the recession on time use; specifically, whether the combination of disproportionate job losses for men and the entry of married mothers into the paid workforce resulted in a more equitable sharing of unpaid work. They note that improvements in the allocation of unpaid work had stalled in the years prior to the recession. This paper differs from their earlier work by defining the duration of the recession based on the level of job losses rather than the period defined by the National Bureau of Economic Research, including unmarried mothers and fathers in their sample, and increasing the number of categories of time use analyzed to more accurately capture the changes that occurred.

Kongar and Berik’s analysis shows that the impacts of the Great Recession reached beyond the labor market. Their examination of cohabitating parents shows that during the recession women increased their labor market hours and also made changes in their unpaid activities. The gender gap in unpaid work time closed somewhat as men allocated some of the hours that they would have normally devoted to paid work to unpaid work, in essence taking over some of the unpaid tasks as their female partners increased their paid work hours. The authors find that child care was the main task in which household-level adjustments between men and women

occurred. However, women retained their primary child-care activities despite their increased work hours. The authors also found that during the recovery women reduced their paid work hours. Their results show that once the recovery began, the pattern of greater equity in the allocation of unpaid work reverted to its less equitable, prerecession levels.

The authors conclude that the pattern of iso-work (i.e., equal workloads for men and women) did not hold over the course of the 2003–12 business cycle. Prior to the recession, mothers' total work burden exceeded that of fathers by nearly 1.5 hours. The recession increased the total workload of mothers relative to fathers as fathers' paid work hours declined and there was only limited reallocation of the unpaid work. This may have been a result of flat earnings, which would have limited mothers' ability to negotiate a reallocation of household tasks; or it may have been a result of the perception that the recession was temporary. Finally, the job market recovered at different rates for men and women after the official end of the recession in June 2009; this may have reduced the pressure to adjust household tasks. The authors note that there was no notable change in the allocation of workloads by gender during the recovery, which is likely due to the reversal of mothers' labor market status (i.e., a return to more unpaid household work rather than paid work). As more mothers left the paid labor market, there was less pressure to reallocate unpaid household work. Thus, it appears that by 2013–14, the gender gap in the total work burden may have returned to prerecession levels.

The study also offers insights regarding the impacts of the recession using a more comprehensive measure of child care that includes secondary child care. The authors show that the experience of parents with young children (age 12 and under) was similar to that of mothers and fathers in the full sample in terms of the impact of the recession on paid work hours and primary child care. Mothers with young children, whose paid work hours increased, maintained their primary child-care time but reduced the amount of time spent on secondary child care. Fathers absorbed some of these secondary child-care duties as mothers reduced their share. Kongar and Berik find that including secondary child care in the total prerecession workload demonstrates that women had a higher total workload than the relatively smaller gap that is found when only primary child care is included. The recession increased this

disparity, which appears to have continued in the recovery. The authors conclude with a call for greater public investment in social care, policies to help families create a more equitable allocation of paid and unpaid work, and for more employment opportunities for low-income households and women. www.levyinstitute.org/pubs/wp_812.pdf

Program: Employment Policy and Labor Markets

After Austerity: Measuring the Impact of a Job Guarantee Policy for Greece

RANIA ANTONOPOULOS, SOFIA ADAM, KIJONG KIM, THOMAS MASTERSON, and DIMITRI B. PAPADIMITRIOU
Public Policy Brief No. 138, October 2014

For nearly four years, Greece has implemented the troika's policy of internal devaluation and austerity. There is no question that this strategy has failed to deliver the growth or employment that was promised. The question today is how to repair the damage wrought by the troika's policies. Ending austerity, while crucial, will not be enough. Even if the Greek economy miraculously rebounded to its precrisis growth rates, it would take nearly a decade and a half for employment levels to recover. Bold public action is required to restore the Greek economy.

In this policy brief, Senior Scholar Rania Antonopoulos, Sofia Adam, Labour Institute / Greek General Confederation of Labour (INE/GSEE), Research Scholars Kijong Kim and Thomas Masterson, and Levy Institute President Dimitri B. Papadimitriou present the key elements of a job creation program for Greece, conducted in collaboration with the Observatory of Economic and Social Developments of the INE/GSEE (drawn from their research project report *Responding to the Unemployment Challenge: A Job Guarantee Proposal for Greece*). Their proposal, inspired by the work of Hyman P. Minsky, calls for the creation of a publicly funded job guarantee program for Greece. Under the proposed program, work in areas such as infrastructure, environmental intervention, social services, and educational and cultural programs would

provide employment opportunities as well as public benefits. The program would address the Greek unemployment directly, drawing on the Levy Institute's expertise in developing such proposals. The brief also contains guidelines for implementing the program in a transparent and socially inclusive manner, with appropriate monitoring to ensure its successful realization.

This policy brief presents research-based evidence of the macroeconomic benefits of a large-scale job creation program in Greece. In order to show a range of intervention levels, the authors present three simulated implementations of the program, ranging from the creation of 200,000 jobs to 550,000 jobs and using the current minimum wage of €586 and the pre-2012 minimum wage of €751. Across all of these simulations, a direct job creation program shows promising results, with the greatest benefits accruing to the most aggressive level of job creation. At the level of 550,000 jobs, such an intervention would have provided paid employment to 64 percent of the roughly 1.2 million unemployed in 2012, including the additional 219,421 jobs created indirectly as a result of the program's multiplier effect; the most modest intervention of 200,000 jobs would have generated an additional 62,268 jobs indirectly and lowered the unemployment level by 22 percent. The cost of the proposed program ranges from 1.5 percent to 5.4 percent of GDP, depending on the scale. However, its net cost would be substantially less since revenues would increase, resulting in a cost of 0.6 percent to 2.2 percent of GDP. Given the scope of the program's benefits and the urgency of Greece's unemployment crisis, the authors turn next to a discussion of potential funding schemes.

The authors note that financing the job creation program through an increase in borrowing is not the preferred means of funding, but, even under such a funding scheme, the program would lower Greece's public debt-to-GDP ratio. Under every simulation, the resulting increase in GDP lowers the debt ratio. And, the larger the program, the faster the decline. Even a midrange job creation program of 300,000 jobs would lower the debt ratio by four to five percentage points. The most aggressive intervention of 550,000 directly created jobs would lower the debt ratio by 9 percent. These findings demonstrate, yet again, how the troika's policy of debt reduction lowers GDP, thereby worsening the debt ratio. Program funding options include debt renegotiation linked to a specific

proposal such as the job guarantee; borrowing from the European Investment Bank to fund development projects; tax-back, zero-coupon bonds issued by the central bank of Greece; and long-term special purpose bonds issued by the central bank of Greece and the European Central Bank.

The authors conclude that there is no excuse for allowing the current unemployment crisis in Greece to continue. Job creation policies have been successfully implemented elsewhere. A modest investment of 2.3 percent of GDP, or 1 percent net, would yield a guaranteed 300,000 jobs in the near term, and begin to break the downward social and economic spiral of austerity created by the troika's policies.

www.levyinstitute.org/pubs/ppb_138.pdf

Program: Immigration, Ethnicity, and Social Structure

Public Preferences for Redistributive Policies in Israel

YUVAL ELMELECH

Working Paper No. 815, September 2014

Research Associate Yuval Elmelech presents his findings on public support for redistributive policies in Israel, a society he describes as exhibiting extreme levels of socioeconomic inequality. He examines public support for outcome-based and opportunity-enhancing redistributive policies in the light of the economic and demographic characteristics of Israeli citizens. The objectives of the paper are to describe public support for redistributive policies, explore the extent to which policy preferences are associated with economic and demographic characteristics, and examine the role of social capital and social networks in policy preferences. Using data from the 2008 Israel Social Survey, the author examines public support across ethnic, religious, and immigration status groups using multinomial regression analysis. Overall, his findings provide support for self-interest theory and reveal that social and demographic indicators are closely aligned with the policy preferences of individuals. He begins with an overview of the literature and current conditions in Israel.

Elmelech notes that Israel, in comparison to other countries with similar levels of economic development, has high rates of socioeconomic inequality and poverty. Yet there has been relatively little research on the attitudes of the population toward redistributive policies. This paper focuses on two classes of redistributive policies: opportunity-enhancing (mainly related to education and labor markets) and outcome-enhancing (aimed at specific socioeconomic groups). The author provides a brief description of self-interest theory (i.e., support for policies that hurt or help groups with which an individual identifies) as well as the research on support for redistributive policies based on such things as educational attainment, age, and racial/ethnic origin. Overall, the literature suggests that people's support for such policies vary by their economic and sociodemographic background, economic status, and the real or potential resources accessible to them through social networks.

In recent decades, Israel has moved away from a social welfare model toward a more conservative model of social protection that leaves many of the more vulnerable segments of the population dependent on private resources and market forces. This has occurred in the midst of extreme economic disparities that are strongly correlated with demographic and social characteristics. Elmelech provides a brief survey of these disparities before turning to a discussion of his research findings.

The author's analysis relies on the 2008 Israel Social Survey Public Use File. The survey contains data on objective measures of well-being such as health, education, and employment, as well as beliefs and attitudes. The 2008 survey is especially useful to the author's investigation as it contains information on socioeconomic status and attitudes toward redistributive policies. He begins with a discussion of descriptive statistics for each of his four dependent variables—investment in education, increasing support to low-income populations, creating new jobs, and raising taxes on the rich—and follows with analysis of socioeconomic and demographic variables associated with each of these policy preferences. Overall, he finds that the majority of the Israeli population supports opportunity-enhancing policies; notably, investment in education. Four findings stand out: the poor favor outcome-based assistance; economically better-off respondents (i.e., disproportionately, first- and second-generation Ashkenazi) tend to support investment in education as an opportunity-enhancing policy, while support for job creation policies is higher among

Israeli Arabs; some groups express support for policies in both categories; and the correlation between socioeconomic variables and policy preferences are strong enough to invite further investigation. The author presents a multivariate regression model to test three sets of explanatory variables: demographic, socioeconomic, and social.

Elmelech finds that ethnic identity and national affiliation cut across class lines, especially for Ashkenazi Jews and Muslim Arabs. However, the sharp differences in policy preferences between secular and religious respondents reveal a deep divide in Israeli society. In contrast to research on Europe, Israeli religious respondents express more support for additional public spending on the poor to reduce economic inequality. The author concludes that since factors such as acculturation, religiosity, and social capital are associated with economic status and demographic characteristics, including these factors in future research may yield a more robust description of public support for redistributive policies.

www.levyinstitute.org/pubs/wp_815.pdf

Program: Economic Policy for the 21st Century

Explorations in Theory and Empirical Analysis

Heterogeneity in the Relationship between Unemployment and Subjective Well-Being: A Quantile Approach

MARTIN BINDER and ALEX COAD

Working Paper No. 808, June 2014

Research Associate Martin Binder and Alex Coad, University of Sussex, offer a deeper look into the connection between unemployment and subjective well-being—that is, happiness—by examining the relationship using quantile rather than average effects. The analysis relies on data from the British Household Panel Survey (BHPS) for the period 1996–2008 and examines the impact of unemployment on individuals' subjective well-being as measured by a broad mental health measure. The authors explore the differences in how

individuals' different degrees of happiness respond to becoming unemployed. The paper begins with a survey of the relevant literature, provides an empirical analysis using quantile regressions, and concludes with recommendations for policymakers.

The link between job loss and subjective well-being has been studied intensively in recent years. However, Binder and Coad suggest that an important aspect of this connection has been neglected. Specifically, empirical research has focused on the average impact of life events, such as the effect of unemployment on subjective well-being, while leaving the question of heterogeneous impacts across the subjective well-being distribution unexamined. The authors note that an emphasis on average impacts can lead to false conclusions as, for example, strong and contrary effects may cancel one another out and lead one to conclude that there is no impact, when in fact there are separate and significant effects occurring at different moments of the distribution. Their paper addresses this shortcoming using a panel quantile regression approach and contributes to the growing literature on the identification and analysis of heterogeneous effects.

The authors first survey the growing literature on subjective well-being and the factors that influence it, noting that unemployment is one of the most powerful negative influences on well-being. Unemployment has both immediate and long-term negative effects, in many cases persisting after an individual finds a new job. The loss of income is one obvious reason for the decline in subjective well-being, but the psychological effects (including a loss of meaning in life, self-esteem, or identity) are in many ways far more damaging than lost income. However, some researchers have found that unemployment increases leisure time and thus, for some of the unemployed, does not have an exclusively negative effect. These conflicting findings in the literature suggest that there is a heterogeneous response to unemployment—precisely the kind of response that could be hidden if measured using averages.

Binder and Coad begin their analysis of the effect of unemployment on well-being using fixed-effects panel regressions and employing Ivan Canay's two-step estimator. The BHPS data provide detailed information on the employment status of a representative sample of the British population. The life-satisfaction measures employed in their analysis rely on both a typical life-satisfaction question and the General

Health Questionnaire, both of which have been used frequently in subjective well-being research.

Their first set of results establishes a baseline of the typical average influence of becoming unemployed on an individual's subjective well-being. They employ two models that differ only in terms of the dependent variables, subjective well-being and mental well-being. Overall, their results are consistent with the literature. These results serve as the starting point for their quantile regression results, in which they explore the heterogeneity of the impact of becoming unemployed across the distribution of subjective well-being. The quantile results show a much richer set of responses to unemployment, confirming the value of the panel quantile approach. For example, the unhappiest 10 percent of individuals experience nearly twice the negative impact from unemployment as the average case in the baseline results, whereas the happiest individuals experience roughly one-third of the negative impacts of becoming unemployed. The authors infer that a higher degree of happiness acts as a shield against some of the impacts of becoming unemployed.

They next conduct four additional tests to determine the robustness of their model, disaggregating the results by gender, age, impacts on different life domains, and life satisfaction. They confirm both their empirical findings and the importance of not relying solely, or in some cases exclusively, on average effects. The authors conclude that public policies that rely on subjective well-being should avoid one-size-fits-all approaches in the design of programs or in the measurement of outcomes, as the responses of individuals vary. Additional research is needed to better understand the psychological resources needed by different groups when they become unemployed, a conclusion that would be missed entirely but for their investigation of heterogeneous responses among individuals.

www.levyinstitute.org/pubs/wp_808.pdf

Causal Linkages between Work and Life Satisfaction and Their Determinants in a Structural VAR Approach

ALEX COAD and MARTIN BINDER

Working Paper No. 809, June 2014

Alex Coad and Martin Binder trace the pecuniary and nonpecuniary linkages between life and work satisfaction, and conditions in the workplace using a structural vector auto regression (SVAR) approach and data on German workers gathered between 1984 and 2008. The central finding of their study is that workplace autonomy plays an important role in work and life satisfaction, and in some cases is found to be more important than pecuniary factors.

The authors observe that most people spend at least half of their waking lives at work, which explains the prominent role of work satisfaction in our health and well-being. Work contributes to personal well-being through the income earned, but it also provides individuals with a sense of meaning, social validation, and other psychological benefits. These nonpecuniary benefits play an important role in personal satisfaction. Coad and Binder explain how self-determination theory holds that individuals value autonomy and self-determination in their jobs, and that this can be an important determinant of workplace well-being. Naturally, there are a large number of factors that interact to form an individual's sense of well-being, in and out of the workplace, which makes the task of untangling the causal relations well suited to data-driven SVAR modeling.

Coad and Binder draw workplace variables from the German Socio-Economic Panel (SOEP), which contains data on a representative sample of the German population. The authors use individual life satisfaction, as measured on an 11-point Likert scale, and job satisfaction as two of the main variables of interest; other variables include income, health, and workplace conditions. They also focus on the role of autonomy, a potentially important and rarely studied component of well-being. The authors explain that self-determination theory views autonomy as one of three innate psychological needs. The SOEP data allow them to measure autonomy using job descriptions (e.g., apprentice, freelance worker, etc.). They also include a composite variable to measure an individual's level of worry, as it may be inconsistent with an individual's

objective living conditions. Finally, their model includes a number of control variables such as gender, age, and so on. Unemployed individuals are excluded from the analysis. Using VAR models, the authors are able to discern intertemporal relationships between the variables by treating several of them as mutually endogenous. Two sets of results are presented: a reduced-form panel VAR model and an SVAR model.

The authors find that, with the exception of health problems, autonomy affects every SVAR variable within the period studied. Their results show that autonomy has a direct and positive influence on life and work satisfaction, and a direct, negative effect on an individual's level of worry. Indeed, other researchers have argued that autonomy may explain the high levels of work satisfaction among the self-employed and among people who work in small companies. In addition, the authors note that their findings are consistent with self-determination theory and the relevant psychological literature. They continue their analysis with a discussion of the number of hours worked—the second-most influential variable in their SVAR model. Interestingly, the causal direction of hours worked runs to job satisfaction and not the reverse, meaning that working more hours contributes to higher work satisfaction. This may reflect the desire for full-time work over precarious part-time employment.

Higher work satisfaction is also shown to lead to higher overall life satisfaction and income. The authors interpret this finding to mean that people who are happy in their work are more likely to be productive and earn more income. They also find that job satisfaction has positive impacts on the physical and mental health of the group analyzed. Life satisfaction has few causal effects in the authors' analysis (except a negative effect on worries) as it is at the end of the causal ordering. However, first-lag causal effects of life satisfaction can be detected, which reflects the impact of happiness over time on things such as productivity. The authors conclude that autonomy provides a valuable guidepost for employers and policymakers in shaping the workplace. Contrary to mainstream economic theory, not all work brings disutility.

www.levyinstitute.org/pubs/wp_809.pdf

If Deficits Are Not the Culprit, What Determines Indian Interest Rates? An Evaluation Using the Maximum Entropy Bootstrap Method

HRISHIKESH VINOD, LEKHA S. CHAKRABORTY, and HONEY KARUN

Working Paper No. 811, July 2014

In this working paper, Hrishikesh Vinod, Fordham University, Research Associate Lekha S. Chakraborty, and Honey Karun, National Institute of Public Finance and Policy, India, challenge two common and persistent narratives that have dominated macroeconomic debates in India. The first is the neoclassical assumption that deficits undermine growth; the second relates to the assumption of “stationarity” in statistical analysis and the emphasis on root-type testing using techniques such as detrending to achieve stationarity. The connection between these two issues is drawn via an analysis of the determinants of Indian interest rates using the maximum entropy bootstrap (Meboot) methodology developed by Vinod.

Prior to the deregulation of interest rates in India in 1992 there were very few studies that analyzed interest rates, reflecting the challenges posed by administered rates to standard methodologies. More recently, the analysis of deregulated rates has been attempted using high-frequency data. In this paper, the authors demonstrate that fiscal deficits do not drive Indian interest rates, which should prompt policymakers and central bankers to abandon policies based on the assumption that they do. Further, the authors seek to contribute to a more accurate understanding of long- and short-term interest rates, as this is essential to forming and evaluating fiscal and monetary policy—today and going forward.

They first review recent efforts to apply time-series analysis and pretests such as unit root tests and cointegration analysis to the question of interest rates. A common problem with such efforts is that the stationarity assumption is compromised if the data series is short or evolving rapidly. Econometricians have struggled with such issues, and a number of solutions have proposed. Departing from these canonical approaches, the authors present a novel times-series method that allows them to forgo such pretests. Vinod’s Meboot methodology allows them to overcome the unit root and structural change pretests, and thus eliminates the need to transform the original time series to meet stationarity requirements.

The authors next discuss Chakraborty’s survey of the literature on the empirical analysis of the determinants of interest rates, which she found to be inconclusive. They examine a variety of key long- and short-term rates, and their evolution since deregulation in the 1990s, noting that administered rates in developing countries have been shown to be responsive to market signals. They then provide a specification of their model.

The results of their model show that the Meboot resample retains the shape of the original distribution. Their estimates show that the real long-term government security yield rate is also affected by the broad money supply and the expected inflation rate (again, both are negative and statistically significant) and the output gap in the long run. They next analyze the structure of long-term interest rates. Short-term interest rates are included as an explanatory variable in this specification of the model. They find that real exchange rates and short-term interest rates are positively related but the broad money supply is negatively related to long-term interest rates. Expected inflation is shown to be significant, albeit at a slightly lower confidence level. The authors also include a brief discussion of the tests used to inspect the convergence of the Meboot estimates with their true values.

Based on these results, the authors conclude that interest rates are affected by a number of macroeconomic variables but not fiscal deficits. Factors such as changes in expected inflation, the reserve currency, and volatility in capital flows, on the other hand, clearly impact interest rates. Policymakers, the authors suggest, would do well to focus on the forces that have been shown empirically to play a role in interest rate determination rather than continuing to target fiscal deficits as the imagined culprit.

www.levyinstitute.org/pubs/wp_811.pdf

Conference

Europe at the Crossroads: A Union of Austerity or Growth Convergence?

Athens, Greece

November 21–22, 2014

Last fall, the Levy Institute held its second annual conference at the Megaron Athens International Conference Centre in Athens, Greece. Co-organized by the Institute and *Economia Civile*, the conference focused on the continuing debate surrounding the eurozone's systemic instability; proposals for banking union; regulation and supervision of financial institutions; monetary, fiscal, and trade policy in Europe, and the spillover effects for the US and the global economy; the impact of austerity policies on US and European markets; and the sustainability of government deficits and debt.

Speakers included leading policymakers, central bankers, and academics from throughout Europe, among them, Marek Belka, governor, National Bank of Poland; Peter Bofinger, German Council of Economic Experts; Lubomir Lizal, board member, Czech National Bank; Heiner Flassbeck, former director, Division on Globalization and Development Strategies, UNCTAD, and former deputy finance minister, Germany; Patrick Honohan, governor, Central Bank of Ireland; Dimitri B. Papadimitriou, president, Levy Institute; Panagiotis Liargovas, director of the budget office, Hellenic Parliament, and Jean Monnet Chair in European Integration and Policies, University of Peloponnese; Rania Antonopoulos, senior research associate, Levy Institute, and macroeconomic policy adviser, UN Women; Steven Tobin, senior economist, International Labour Organization; Mario Tonveronachi, professor of financial systems, University of Siena; Eckhard Hein, professor of economics, Berlin School of Economics and Law; Jan Kregel, senior scholar, Levy Institute, and professor of finance and development, Tallinn University of Technology; Giorgos Argitis, professor of economics, University of Athens, and scientific director, Institute of Labour, Greek General Confederation of Labour; Elga Bartsch, European chief economist, Morgan

Stanley; Emiliós Avgouleas, chair, International Banking Law and Finance, University of Edinburgh; Lex Hoogduin, professor of economics and business, University of Groningen; Megan Greene, chief economist, Manulife Asset Management; and Andrea Terzi, professor of economics and coordinator of the Mecpoc Project, Franklin University Switzerland.

Full audio of the proceedings is available on our website, www.levyinstitute.org.

Upcoming Event

The Hyman P. Minsky Summer Seminar

Blithewood, Annandale-on-Hudson, N.Y.

June 12–20, 2015

Registration is now open for the Levy Institute's sixth Hyman P. Minsky Summer Seminar, to be held on the Bard College campus in June 2015. The annual Summer Seminar provides a rigorous discussion of both theoretical and applied aspects of Minsky's economics, and is geared toward recent graduates, graduate students, and those at the beginning of their academic or professional careers. For more information, visit www.levyinstitute.org.

Save the Date

24th Annual Hyman P. Minsky Conference Is Financial Reregulation Holding Back Finance for the Global Recovery?

The National Press Club, Washington, D.C.

April 15–16, 2015

PUBLICATIONS AND PRESENTATIONS

Publications and Presentations by Levy Institute Scholars

RANIA ANTONOPOULOS *Senior Scholar and Program Director*

Publication: 소득과 시간빈곤 계층을 위한 고용복지정책 수립방안 — *LIMTIP* 모델의 한국사례 (Employment and Social Policies for Time and Income Poor: Application of LIMTIP in South Korea) (with T.-H. Kwon, A. Zacharias, T. Masterson, and K. Kim), Korea Employment Information Agency, 2014 (originally published in English).

JAMES K. GALBRAITH *Research Scholar*

Publications: *The End of Normal: The Great Crisis and the Future of Growth*, Free Press, 2014; “Preface,” in M. Fahmy and A. Noël, eds., *Miser sur l’égalité*, Montréal, Institut du Nouveau Monde, Éditions Fides; “Preface,” in Giuseppe Guarino, *The Citizens of Europe and the Crisis of the Euro*, Editoriale Scientifica; “Foreword,” in J. Sommers and C. Woolfson, eds., *The Contradictions of Austerity: The Socio-economic Costs of the Neoliberal Baltic Model*, Routledge; “Unpacking the First Fundamental Law,” *World Economic Review*, No. 69, October; “Lettre d’un ami américain,” *AlterEcoPlus*, November 28. “A Call for Policy Change in Europe” (with J. E. Stiglitz et al.), *Challenge*, Vol. 57, No. 4, July/August 2014.

Presentations: Guest panelist, conference on “Rethinking Economics,” The New School, New York, N.Y., September 12, 2014; guest speaker, conference sponsored by the Committee on Workers’ Capital and the Confederation des Syndicats Nationaux, Montreal, Canada, September 23; opening address, conference sponsored by PRI in Person, Montreal, September 24; keynote address, 12th International Post Keynesian Conference: “Where Do We Go from Here?,” University of Missouri–Kansas City, September 25–28; guest speaker, Ray and Mary Giles Symposium on Citizenship and Public Service, University of Science and Arts–Oklahoma, Chickasha, September 29; keynote address, National Meeting on Social Inequality, Institut du Nouveau Monde, Montreal, October 24.

GREG HANNSGEN *Research Scholar*

Presentation: “Inside Money in a Kaldor-Kalecki-Steindl Fiscal-policy Model: Proposed Roles for the Unit of Account, Inflation, Leverage, and Financial Fragility,” 12th International Post Keynesian Conference: “Where Do We Go from Here?,” University of Missouri–Kansas City, September 25–28, 2014.

KIJONG KIM *Research Scholar*

Publication: 소득과 시간빈곤 계층을 위한 고용복지정책 수립방안 — *LIMTIP* 모델의 한국사례 (Employment and Social Policies for Time and Income Poor: Application of LIMTIP in South Korea) (with T.-H. Kwon, A. Zacharias, T. Masterson, and R. Antonopoulos), Korea Employment Information Agency, 2014 (originally published in English).

THOMAS MASTERSON *Research Scholar and Director of Applied Micromodeling*

Publications: 소득과 시간빈곤 계층을 위한 고용복지정책 수립방안 — *LIMTIP* 모델의 한국사례 (Employment and Social Policies for Time and Income Poor: Application of LIMTIP in South Korea) (with T.-H. Kwon, A. Zacharias, K. Kim, and R. Antonopoulos), Korea Employment Information Agency, 2014 (originally published in English); “Time Deficits and Poverty: The Levy Institute Measure of Time and Consumption Poverty for Turkey” (with A. Zacharias and E. Memi), *Ekonomik Yaklasim*, Vol. 25, No. 91.

Presentation: “Measuring Poverty and Inequality after the Great Recession in USA,” DECPI Global Poverty and Inequality Measurement Workshop, The World Bank, Washington, D.C. November 20, 2014.

DIMITRI B. PAPADIMITRIOU *President*

Publications: “Will Lindsay Lohan Save Greece?,” *Newgeography*, September 25, 2014; “Juncker’s Stimulus Plan Is Unrealistic on Many Fronts,” interview with Dimitris Rapis, BridgingEurope.net, December 16.

Presentation: Interview regarding the human cost of the debt crisis in Greece with Derek Gatopoulos, Associated Press (Athens), November 11.

L. RANDALL WRAY *Senior Scholar*

Presentations: “What Are the Monetary Constraints to Sustainable Recovery of Employment?” 12th International Post Keynesian Conference: “Where Do We Go from Here?” (organizer), University of Missouri–Kansas City, September 25–28, 2014; “Financing the Capital Development of the Economy: A Keynes-Schumpeter-Minsky Synthesis,” Conference on Financial Institutions for Innovation and Development, sponsored by the Ford Foundation, Berlin, November 10–11.

AJIT ZACHARIAS *Senior Scholar*

소득과 시간빈곤 계층을 위한 고용복지정책 수립방안 — LIMTIP 모델의 한국사례 (Employment and Social Policies for Time and Income Poor: Application of LIMTIP in South Korea) (with T.-H. Kwon, T. Masterson, K. Kim, and R. Antonopoulos), Korea Employment Information Agency, 2014 (originally published in English).

GENNARO ZEZZA *Research Scholar*

Publications: “Diritto al lavoro” (The Right to Work), in Lidia Undiemi, *Il ricatto dei mercati*, Ponte alle Grazie, 2014; “Uscire dall’euro e salvaguardare il lavoro è possibile” (Exiting the Euro while Protecting Labor Is Feasible), *Critica Marxista*, No. 5, December.

Presentations: “The Role of Economic Models in Public Policy Making,” Conference on Rethinking Economics, New York, N.Y., September 13, 2014; “Stock Flow Consistency in Agent Based Models,” workshop on stock-flow consistent and agent-based models, Monte Conero, September 19.

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