## Contents

### INSTITUTE RESEARCH

**Program: The State of the US and World Economies**

5  FERNANDO J. CARDIM DE CARVALHO, *The Narrow Path for Brazil*

6  APOSTOLOS FASIANOS, DIEGO GUEVARA, and CHRISTOS PIERROS, *Have We Been Here Before? Phases of Financialization within the 20th Century in the United States*

7  MICHALIS NIKIFOROS, DIMITRI B. PAPADIMITRIOU, and GENNARO ZEZZA, *The Greek Public Debt Problem*

8  MASSIMO AMATO, LUCA FANTACCI, DIMITRI B. PAPADIMITRIOU, and GENNARO ZEZZA, *Going Forward from B to A? Proposals for the Eurozone Crisis*

**Program: Monetary Policy and Financial Structure**

9  JAN KREGEL, *What We Could Have Learned from the New Deal in Confronting the Recent Global Recession*

10  JÖRG BIBOW, *From Antigrowth Bias to Quantitative Easing: The ECB’s Belated Conversion?*

10  WARREN MOSLER and DAMIANO B. SILIPO, *Maximizing Price Stability in a Monetary Economy*

11  TANWEER AKRAM and HUIQING LI, *The Empirics of Long-Term US Interest Rates*

12  TANWEER AKRAM, *Japan’s Liquidity Trap*

13  PAVLINA R. TCHERNEVA, *Money, Power, and Monetary Regimes*

**Program: The Distribution of Income and Wealth**

14  RANIA ANTONOPOULOS, VALERIA ESQUIVEL, THOMAS MASTERSON, and AJIT ZACHARIAS, *Measuring Poverty in the Case of Buenos Aires: Why Time Deficits Matter*
## Contents (continued)

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>INSTITUTE NEWS</strong></td>
<td></td>
</tr>
<tr>
<td>New Research Associate</td>
<td>16</td>
</tr>
<tr>
<td><strong>SAVE THE DATE</strong></td>
<td></td>
</tr>
<tr>
<td>26th Annual Hyman P. Minsky Conference</td>
<td>16</td>
</tr>
<tr>
<td><strong>PUBLICATIONS AND PRESENTATIONS</strong></td>
<td></td>
</tr>
<tr>
<td>Recent Levy Institute Publications</td>
<td>16</td>
</tr>
</tbody>
</table>
LETTER FROM THE PRESIDENT

To our readers:

This issue begins with a policy note by Senior Scholar Fernando J. Cardim de Carvalho under the State of the US and World Economies program. Cardim de Carvalho sketches out the “narrow path” ahead for Brazil as the country struggles through a joint economic and political crisis—shrinking output and rising unemployment, compounded by a succession of government corruption scandals—that has left its policymaking apparatus paralyzed and its fiscal and monetary policy space seriously constrained.

Three working papers are also included under this program. Apostolos Fasianos, Diego Guevara, and Christos Pierros discuss the origins of financialization, with a focus on the United States in the 20th century. The use of the term may be fairly recent, say the authors, but the concept is far from novel. Research Scholars Michalis Nikiforos and Gennaro Zezza and I discuss the accumulation of Greece’s public debt since the 1960s, its role in the country’s ongoing economic crisis, and the failure of austerity to achieve debt stabilization. In a related paper, Massimo Amato, Luca Fantacci, Zezza, and I investigate the feasibility of introducing fiscal currencies to restore fiscal space in Greece and other countries in the eurozone periphery, which could bolster their recovery without undermining the rules of the European treaties. We also outline some simple changes in the functioning of the European Central Bank’s (ECB) TARGET2 system that could lead the way to a more sustainable monetary architecture for the euro area as a whole.

In a public policy brief under the Monetary Policy and Financial Structure program Director of Research Jan Kregel argues that in searching for a historical blueprint that would help us deal with the 2008 global financial crisis we placed undue emphasis on the actions taken to rescue the financial system in the 1930s. Instead, writes Kregel, we should examine the path taken after the banking system was rescued: the policies deployed to address problems in the real economy—the core of President Roosevelt’s New Deal.

This program also includes five working papers. Research Associate Jörg Bibow discusses the ECB’s monetary policies from the euro’s inception to today, along with the issues arising from the divorce of fiscal and monetary policy. He contends that if banking union is a required complement to monetary union, so too is fiscal union, with a sufficiently strong common fiscal backstop at its center. Warren Mosler and Visiting Scholar Damiano B. Silipo analyze options for the ECB to achieve its price stability mandate, and conclude that a buffer stock policy based on employed labor and directly managed by the central bank is the most viable. Tanweer Akram and Huiqing Li look at the drivers of long-term interest rates in the United States in an effort to determine why these rates have remained low despite higher government indebtedness and large fiscal deficits. In a separate paper, Akram examines Japan’s liquidity trap in light of the structure and performance of the country’s economy since the onset of stagnation in the mid-1990s. And Research Associate Pavlina R. Tcherneva explores the origins and nature of money—here defined as a “creature of the state” that has played a key role in the transfer of real resources between parties—to illuminate the economic possibilities under different institutional monetary arrangements in the modern world.

Finally, in a working paper under the Distribution of Income and Wealth program, Senior Scholar Rania Antonopoulos, Research Associate Valeria Esquivel, Research Scholar Thomas Masterson, and Senior Scholar Ajit Zacharias analyze the incidence of time and income poverty in Buenos Aires, Argentina, and consider the impacts of job creation and other poverty-reduction strategies, arguing that any successful intervention must include both social policies to combat time deficits and economic policies to address income poverty.

As always, I welcome your comments and suggestions.

Dimitri B. Papadimitriou, President
Program: The State of the US and World Economies

The Narrow Path for Brazil
FERNANDO J. CARDIM DE CARVALHO
Policy Note 2016/2, April 2016

This policy note derives from Working Paper No. 860.

Senior Scholar Fernando J. Cardim de Carvalho sketches out the “narrow path” ahead for Brazil as the country struggles through a joint economic and political crisis. The combination of shrinking output and rising inflation and unemployment presents, on its own, a formidable policy challenge. But as Cardim de Carvalho points out, Brazil is also undergoing a political crisis rooted in a series of corruption scandals. In such an environment, he writes, there is little reason to believe the political system will be able to perform the delicate policy maneuvering that would be required to address the country’s economic problems. Brazil’s policymaking apparatus is effectively paralyzed, with fiscal and monetary policy space seriously constrained.

Brazil’s real GDP contracted by an estimated 3.8 percent in 2015, annual inflation stood at nearly 11 percent, and fiscal deficits exceeded 10 percent of GDP. Furthermore, unemployment was expected to continue to rise, with the solvency of large firms in the year ahead a growing concern. As the author observes, there has been a debate among analysts as to the source of Brazil’s economic troubles, with some pointing to past, pre-2015 policy missteps, while others contend that the austerity policies announced in 2015 are to blame. Cardim de Carvalho acknowledges that both sides of this debate have some merit; prior to 2015, he demonstrates, the Brazilian economy had become much weaker than many were led to believe—economic stagnation had set in as early as 2011–12, with the “Chinese growth rate” rate of 2010 (7.5 percent) an aberration—and the “announcement effect” of austerity policies proposed in 2015 also did some damage.

However, Cardim de Carvalho points to an additional cause of the depth of the economic crisis: the political crisis in the federal government and the uncertainty this generated. The economy was undermined both directly and indirectly by corruption scandals: directly, through the reduction of investments in Petrobras and infrastructure projects in scandal-linked industries; indirectly, through the prospect of impeachment proceedings against the president, reversals in policy, and manipulation of the nation’s fiscal accounting—resulting, ultimately, in an inability to govern.

Cardim de Carvalho suggests that Brazil must ensure that the devaluation of the real is maintained, but cautions that the expansionary effect that could be expected from devaluation is likely to be limited. Ultimately, as the domestic private sector is unwilling to take on debt, it falls to government and foreign investors to revive aggregate demand. However, the space for expansionary monetary policy is limited, given an inflation rate far exceeding the official target, which forced the Central Bank of Brazil to raise a key interest rate to 14.25 percent at the end of 2015. And fiscal policy will remain focused on austerity for lack of any other politically viable alternative. The government might thus be faced with the politically tricky task of shifting to a “smarter austerity”—in other words, increasing public investment while cutting other expenditures and increasing revenues in ways less damaging to aggregate demand (i.e., that have a smaller “multiplier effect”). However, Cardim de Carvalho concludes that it is unlikely the government will be able to navigate the political tradeoffs such a maneuver would entail. Thus, the only solution might be to wait for the 2018 elections to see if a more viable political situation emerges.

www.levyinstitute.org/pubs/pn_16_2.pdf
Have We Been Here Before? Phases of Financialization within the 20th Century in the United States

APOSTOLOS FASIANOS, DIEGO GUEVARA, and CHRISTOS PIERROS

Apostolos Fasianos, University of Limerick, Diego Guevara, University of La Sabana, and Christos Pierros, University of Athens, discuss the origins of financialization in the economy, with a focus on the United States in the 20th century. They argue that although the use of the term “financialization” is fairly recent in the literature, the concept is far from novel.

While most analysts consider the 1980s as the beginning of the era of financialization (marked by the increasing importance of financial markets, motives, and institutions), the authors contend that the process began at the turn of the 20th century, with a “second wave” of financialization beginning in the late 1970s. By dividing the overall period into four distinct phases—1900–33, 1933–40, 1945–73, and 1974–2010—they demonstrate that the financialization of capitalist economies, in particular the United States, was already taking place prior to the Great Depression.

Employing empirical and qualitative indicators, Fasianos, Guevara, and Pierros demonstrate that the most recent period of financialization (1974–2010) shares many similarities with the initial period under consideration (1900–33). To make the comparison, they explore both the mainstream and heterodox literature and note the different attitudes toward financial developments in each school. While mainstream authors consider the financial instruments developed over both periods in a positive light—as “innovations”—the heterodox literature describes those developed in the later period as contributing to a different form of capitalism, one that, according to Hyman P. Minsky, is “structurally conducive to booms and busts.”

On the firm level, the authors look at the idea of “shareholder value orientation” and its tendency to change the focus of the economy from a longer-term “retain and invest” model to one that emphasizes higher gains and dividend payments in the short term, necessitating that profits be accrued mainly through financial, rather than productive, activities. At the household level, increased household debt and easy access to consumer credit is changing consumption patterns and seen to be linked to stagnating wages and debt-led consumption booms.

After demonstrating a clear trend toward the increase in financialization throughout the 20th century, the authors explore the evolution of this trend using methodological instruments derived mainly from the post-Keynesian tradition. In the first period they examine (1900–33), Fasianos, Guevara, and Pierros argue that the stage was set for a move toward financialization through the exploitation of a loophole in 19th-century laws, allowing national banks to participate in the securities markets through the introduction of affiliates. In 1931, national banks engaged in securitization at a rate that was 11 times higher than a decade earlier. The resulting competition for deposits led to a quest for higher returns, thereby increasing the overall financial fragility of the US economy, marking the end of the first wave of financialization.

The height of the Great Depression marks the beginning of the second period under investigation (1933–40). Here the authors note a move toward increased regulation and interventionist policies. The resulting definancialization provided a payoff in the form of a boom in fixed capital formation in the third period (1945–73), or what they refer to as the “Golden Age” of US capitalism. The creation of the Federal Deposit Insurance Corporation and the Securities and Exchange Commission to regulate and protect the financial sector, as well as weak competition from the foreign sector, reduced the pressure on financiers to produce higher returns and brought about a period of financial tranquility. However, the innovations of the 1960s were moving faster than regulatory bodies could respond, leading to a prolonged (1974–2010) period of deregulation and increased financial fragility, where the return-on-equity norm was the ultimate goal of management. Coupled with a wave of mergers in this period that had not been seen since the early 1900s, this latest period bears many similarities to the first, leading the authors to conclude that financialization is not a modern facet of neoliberal capitalism but rather a multidimensional process present throughout the 20th century.

Although data limitations and distinct institutional frameworks across the periods under investigation make a complete analysis of the era impossible, the authors find support for their hypothesis that the most recent period of financialization shares many of the common elements of the first. Therefore, in order to manage the financial fragility demonstrated in these
periods of intense financialization, they suggest that as we adopt new innovations, we must also institute a dynamic regulatory framework to keep pace with the changes as they arise.


The Greek Public Debt Problem

MICHALIS NIKIFOROS, DIMITRI B. PAPADIMITRIOU, and GENNARO ZETZA


Research Scholar Michalis Nikiforos, President Dimitri B. Papadimitriou, and Research Scholar Gennaro Zezza examine the historical antecedents and policy choices that led to the ongoing economic and social crisis in Greece. Their analysis comprises trends in Greece’s public debt since the 1960s, the role of public debt in the recent crisis, and the track record of austerity policies imposed since 2010. They conclude that austerity has failed and that a continuation of these policies is untenable, both pragmatically and morally. The authors observe that Europe has chosen a less punitive path to dealing with national debt in the past, citing the forgiveness of Germany’s debt following World War II, which provides ample precedent for a more humane and pragmatic approach to Greece’s public debt. In addition, they call for a bold shift in policy that would address both the crisis in Greece and the structural imbalances across the eurozone.

Nikiforos, Papadimitriou, and Zezza begin their analysis with a historical account of Greece’s public debt before 2009 and the forces that drove the debt-to-GDP ratio to increase over time. This analysis provides a basis for understanding the Greek crisis, a crisis rooted in the flawed design of the common currency area that led to fiscal imbalances and the accumulation of public debt. Understood on this basis, the authors demonstrate that the prevailing diagnosis and policy prescription have been wrong. Austerity and structural reform policies have not led to debt sustainability; rather, these policies have pushed Greece into a debt-deflation trap. Likewise, the lion’s share of the bailout funds went to foreign creditors or to recapitalize Greek banks. The authors also observe that European authorities have used the country’s public debt as both a carrot and a stick in negotiations, incentivizing more austerity with promises of an eventual debt reduction—which, after six years, has yet to materialize—and punishing Greece for any deviation from the path of austerity.

Reflecting on the effects of austerity, the authors find no evidence that it has reignited growth or made Greece’s debt more sustainable. Going forward, Greece requires a meaningful restructuring of its public debt if it is to have any hope of sustained economic growth. Likewise, they argue that to continue austerity policies would be to reject the clear evidence of their failure.

As has become apparent, the Greek debt cannot be repaid under any plausible circumstances. If the resources that could be used to lead a recovery continue to be sacrificed to service this unsustainable stock of debt, the Greek economy will be consigned to a prolonged period of stagnation, where debt overhang creates uncertainty that prohibits a recovery in private sector investment. As an alternative to the policy regime of the past six years, the authors suggest that the approach taken toward a defeated Germany after World War II—when Europe embraced a policy of reconstruction and a sweeping cancellation of German public and foreign debt—is the only way forward.

The authors contend that while austerity is often seen as a necessary punishment for the sins of Greece’s past (corruption, political dysfunction, and fiscal imprudence), the issue is more complicated. With structural deficiencies exacerbating the crisis and no central bank to act as a lender of last resort, Greek debt will continue to grow. With Greece already facing the largest peacetime decrease in GDP of any developed country in modern history, more austerity is not the answer. Citing John Maynard Keynes’s observations on Germany’s inability to pay reparations following World War I, the authors note that stubborn insistence on payment of a debt that could never be repaid had led to an economic crisis with serious political repercussions, not only for Germany but also the rest of Europe.

To contain the issues that plague Greece, debt restructuring, a relaxation of austerity policies, the implementation of policies to address persistent weaknesses in the economy, and a broad initiative to correct the imbalances inherent in the structure of the eurozone are necessary. The authors warn that these imbalances, if left in place, will continue to undermine the eurozone project, and that addressing them will require a far greater effort than resolving the issue of Greece’s public debt.

Going Forward from B to A? Proposals for the Eurozone Crisis
MASSIMO AMATO, LUCA FANTACCI,
DIMITRI B. PAPADIMITRIOU, and GENNARO ZEZZA

Massimo Amato and Luca Fantacci,Università Bocconi, President Dimitri B. Papadimitriou, and Research Scholar Gennaro Zezza discuss the feasibility of introducing fiscal currencies to restore fiscal space in countries in the eurozone periphery. They argue that such currencies, which are not legal tender, would speed up their recovery without neglecting their obligations under the European Monetary Union (EMU) as established by the Maastricht Treaty.

The authors assert that the EMU was conceived based on two assumptions that have yet to be proven true: that its establishment would lead to a smooth transition to a “United States of Europe,” which would complete the institution of a common market with a unified foreign policy and an integrated fiscal system; and that markets would self-adjust toward full employment and smooth market functioning with a central bank that was independent from government, while individual national governments controlled fiscal policy.

While some peripheral countries (such as Greece and Portugal) were able to achieve higher rates of real GDP growth thanks to the lower cost of borrowing in the EMU, much of this was due to asset inflation rather than a balanced increase in domestic demand and output. In Greece, the sovereign debt crisis, precipitated by high public debt levels and a ballooning deficit, caused the price of Greek bonds to collapse and interest rates to rise to unprecedented levels. With few options, the country was forced to adopt fiscal austerity and structural labor market reforms in order to obtain new liquidity from the International Monetary Fund and eurozone institutions. Austerity became the standard policy response for crisis countries in the European periphery.

Yet within only a few years, the authors say, it became clear that the theoretical basis for the policy—the assumption that the fiscal multiplier was small (or even negative), so reductions in public expenditure would not result in large drops in GDP—was wrong. Fiscal multipliers were in fact much larger, and while public spending cuts may lead to a short-term improvement in the balance of trade, the cost is rising unemployment and a depressed private sector.

With austerity and labor market reforms the only policy options currently being considered, the authors offer a plan for a fiscal currency, similar to the Swiss WIR, that would be accepted at par for internal transactions and tax payments to the central and local governments, as well as used to finance government expenditure on social programs to create jobs and alleviate poverty.

In line with proposals presented in previous Levy Institute publications (most recently, Policy Note 2016/1, Complementary Currencies and Economic Stability), the authors outline the benefits of introducing a domestic fiscal currency to increase fiscal space in the crisis countries of the eurozone periphery, focusing here on Greece. The proposed currency—the “geuro”—would be accepted for up to 20 percent of all tax payments (although the Greek government would not guarantee the convertibility of the currency, by accepting it at par with the euro for tax payments the value would be sustained). Estimates based on simulations of the Levy Institute Model for Greece indicate that a moderate fiscal expansion financed by the parallel currency would significantly improve GDP growth, while keeping the current account in surplus.

Additionally, the geuro would be accompanied by changes in the TARGET2 payment system along the lines of John Maynard Keynes’s proposal to reform the international monetary system after World War II. Under this plan, a clearing union would be established to settle all payments related to international trade and to finance temporary imbalances. Unlike a regular bank, the clearing union would charge both debtor and creditor countries a fee for the service, with symmetric charges acting as an incentive for all countries to converge toward balanced trade. By not relying on debtor countries exclusively to reduce their imports, inducing a contraction of intra-European trade, while also encouraging creditor countries to import more, the TARGET2 reform plan presented here overturns the logic of austerity. The authors assert that a modest version of this proposal could easily be implemented within the current capacities of the European Central Bank and would not infringe on EU regulations. Balanced trade would thus actually operate as a cohesive force for the unification of Europe.

What We Could Have Learned from the New Deal in Confronting the Recent Global Recession

JAN KREGEL
Public Policy Brief No. 141, March 2016

We have largely drawn the wrong lessons from the history of policy responses to the Great Depression, according to Director of Research and Senior Scholar Jan Kregel’s public policy brief. In search of a historical blueprint that would help us deal with the 2008 global financial crisis and its aftermath, we have placed undue emphasis on the actions taken to rescue the financial system in the 1930s. Indeed, we need to look elsewhere for practical guidance, writes Kregel: to an examination of the path taken after the banking system was rescued. A reflection on the policies deployed to address problems in the real economy—the core of President Roosevelt’s New Deal—highlights the crucial difference between the 1930s and our present approaches. This, Kregel argues, is where we will find the more valuable lessons of the 1930s—and the source of today’s varying degrees of policy failure, from the United States to the eurozone.

As Kregel observes, the emergency financial measures of the 1930s and those of the post-2008 period in the United States were largely similar in terms of their broad approaches, with both featuring a government-imposed recapitalization of banks using government funds. And in many respects, he notes, the 2008 crisis was moderated by the policy legacy of the Great Depression (deposit insurance, automatic stabilizers, etc.), which prevented a bank run and unemployment rates of the sort seen in the 1930s. After the most recent crisis, however, rescuing the financial system has been regarded for the most part as sufficient for economic recovery, while in the 1930s financial measures were merely the precursor to an evolving project aimed at using the federal government’s fiscal powers to rescue the poor and unemployed and treat the deep uncertainty generated by their plight.

Roosevelt faced a conundrum similar to that which has confronted today’s policymakers: the conflict between the forces of fiscal conservatism and the need to deploy directed government spending in service of supporting the real economy. As Kregel details, Roosevelt himself fell prey to the fetishism of balanced budgets. The difference, however, is that while FDR and his advisers eventually reversed course, today’s policy responses are still being overly influenced by fiscal moderation.

In this brief, Kregel describes how the evolution of the New Deal strategy and its iterative, experimental use of public expenditure was not ultimately undergirded by formal Keynesian theory, but driven primarily by other goals: to fend off more radical interventionist alternatives; to support the morale of the populace, which was key to the preference for public employment over transfers; and to address the deep uncertainty generated by unemployment. Central to Roosevelt’s New Deal was confronting the “fear of fear,” the radical uncertainty about the future that prevented people and businesses from making purchases, investments, and so on. According to Kregel, the most innovative experiments of the New Deal—specifically in the areas of the direct provision of employment (rather than “the dole”)—emanated from this attempt to fine-tune the psychological impacts of the policy response. And pursuing this strategy required Roosevelt and his advisers to break with orthodoxy and convince Congress and the public of the need for an activist fiscal policy targeting the unemployed, and of the error of regarding the federal budget as equivalent to that of a household. Key public employment measures like the Works Progress Administration and the emphasis on rapid spending to increase employment met with pressure to pursue a balanced budget—featuring, Kregel notes, many of the same arguments we hear today in favor of fiscal conservatism. In retrospect, he observes, the New Dealers independently discovered “functional finance,” well before the Keynesian revolution.

Kregel notes that conditions in the 1930s gave Roosevelt and his team a greater chance at generating legislative and broader political support for this deployment of public expenditure targeting the real economy. But the larger lesson we may draw from this history, in Kregel’s view, is that solving the banking crisis, then and now, is not sufficient to treating our economic afflictions. Roosevelt succeeded in beating back the budget balancers of his day in order to take the next, necessary step; we have yet to take up the fight.

www.levyinstitute.org/pubs/ppb_141.pdf
From Antigrowth Bias to Quantitative Easing: The ECB’s Belated Conversion?
JÖRG BIBOW

Research Associate Jörg Bibow discusses the origins of the European Central Bank (ECB) and the issues arising from the divorce of fiscal and monetary policy. He contends that if banking union is a required complement to monetary union, so too is fiscal union, with a sufficiently strong common fiscal backstop at its center.

The ECB was created based on a “narrow central bank” model as the world’s most independent central bank, using a price stability mandate that was thought to guarantee the soundness of the euro. Other constraints, such as debt and deficit limits, as well as a “no-bailout” clause, were also put in place to override any lack of fiscal discipline by member countries and to keep fiscal solvency issues at the national level.

As laid out in the Treaty on the Functioning of the European Union, the ECB’s basic tasks include the duty to promote smooth operation of payments systems, but no provisions are made for banking supervision or lender-of-last-resort functions for troubled banks. The ECB presides over the individual national central banks (which do have broader responsibilities in the fiscal domain), but focuses almost exclusively on monetary policy. Without a central bank partner, national treasuries are subject to default and have therefore lost effective control over national fiscal affairs. Bibow asserts that this monetary-fiscal divorce is the ultimate source of the “bank-sovereign doom loop” that arises when banks lack a fiscal backstop to recapitalize them when faced with a financial meltdown.

In addition to the deeper institutional deficiencies that plague the euro, the ECB’s “stability-oriented” monetary policies amount to an antigrowth bias (slow to ease, quick to hike) inherited from the Bundesbank model; however, such policies work only when a country’s main trading partners do not share the same strategy. By exporting Germany’s hawkishness and reliance on export-led growth to the rest of the European Union, growth could not be sustained across the eurozone or within Germany itself.

A review of the ECB’s monetary policies from 1999 to 2014 confirms that the antigrowth bias has not only hindered domestic demand growth but also backfired with respect to the bank’s primary mandate of price stability. The narrowness of the view that price stability itself contributes to the achievement of output and employment goals has led the ECB to misdiagnose problems and prescribe ineffective and even harmful remedies, such as austerity, that further weaken both public finances and banks.

In January 2015, in what the author calls a “policy U-turn,” the ECB embarked on a quantitative easing (QE) initiative to boost the size of the banking system by €1 billion and drive inflation back up to the bank’s target of just under 2 percent. These measures have proven a mixed blessing, however, as he notes there is a clear contradiction in using QE to boost inflation while still pursuing wage policies that can only cause deflation. Ultimately, the problem is that the German model of export-led growth simply cannot work for an economy the size of the eurozone; instead, the eurozone needs to fix its dysfunctional policy regime and reorient policies firmly toward domestic-led growth.

To this end, Bibow believes the first step in remediying the vulnerability of the eurozone is to establish a Euro Treasury. The treasury would create a rudimentary fiscal union (one that is not a transfer union) to fund future public investment spending without mutualizing existing national debt. Sustained deficit spending from the center would enable the decline of national public debt ratios to low and safe levels by providing a common safe asset that markets need to establish a common yield curve of risk-free interest rates. Banks would shrink their holdings of national sovereign debt and hold Euro Treasury debt as their safe assets instead, rebooting and steadying public investment.


Maximizing Price Stability in a Monetary Economy
WARREN MOSLER and DAMIANO B. SILIPO

Fiat currencies ultimately and necessarily rely on a managed buffer stock policy to ensure price stability, but the degree to which they are able to achieve this objective depends on the suitability of the buffer stock chosen. Warren Mosler, Valance Co., Inc., and Visiting Scholar Damiano B. Silipo, Università
delia della Calabria, investigate the effects of an employed labor buffer stock policy on the ability of the European Central Bank (ECB) to meet its price stability mandate as outlined in Article 127 of the Treaty on the Functioning of the European Union. Through an examination of historical policies based on various buffer stocks (grains, precious metals, other currencies) and the current ECB policy of using a buffer stock of unemployed labor, the authors demonstrate that a policy that uses employed labor in a transitional job at a fixed wage as a buffer stock is superior to other available options.

The authors define a buffer stock as a commodity or currency being purchased at a support price with the promise to sell it at the same or a slightly higher price for the purpose of promoting price stability. Comparing the volatility and liquidity of buffer stocks, including commodities and labor, they cite two risks: the above-market price can lead to an increase in supply and the possibility of resources being directed to activities that may not support the public purpose (e.g., more resources being used to mine gold); or it can lead to an increase in public spending to acquire the object of the buffer stock, shifting the value down relative to other goods and services and causing inflation. Using data from the Commodity Research Bureau and the US Bureau of Labor Statistics, they demonstrate the volatility of the annual average price change of potential buffer stocks and find labor to carry the least risk, indicating a greater expectation of price stability when labor is used as a buffer stock.

Mosler and Silipo note that for all practical purposes the eurozone, following the logic of a Phillips curve, uses unemployment as its buffer stock to promote price stability, enacting policy to increase the size of the unemployed buffer stock when inflation is too high; however, after several years of pursuing this policy, private sector credit expansion remains depressed and the output gap alarmingly wide. In addition, political pressures generated by the negative externalities of unemployment have intensified.

In this context, the authors offer an alternative to the current policy of using unemployed labor as a buffer stock, one that uses employed labor instead, arguing that it is a superior anchor. Since labor is not subject to the first traditional risk of buffer stock policies (an increase in supply at a given support price), the employment of labor in a transitional job will not result in a commensurate growth in population the way, for example, a buffer stock of precious metals can lead to more mining and/or hoarding. By offering a transitional job at a fixed wage, the ECB takes on the role of a price setter, making the offered wage the numeraire for the currency, with market forces adjusting all other prices accordingly and thereby defining the value of the euro within the eurozone. The ECB then adjusts the wage up or down to achieve its inflation target. The authors recommend setting the initial wage at a non-disruptive level (€7/hour in their example) to avoid drawing workers away from the private sector; while acting as a general wage floor, the non-disruptive initial wage would subsequently help to prevent deflation without promoting inflation. By guaranteeing a wage to anyone who is willing and able to work, demand for goods and services would increase, expanding GDP. The employed buffer stock would have the added benefit of keeping workers from becoming idle and would allow for a smoother transition to private sector employment as the economy expands.

While political considerations include discussion of who should pay for the buffer stock wage, the authors argue that the costs of implementation would be less than the current expenditures on income maintenance programs. Based on their vector autoregression model, they estimate the program would cause an immediate increase in the rate of inflation, to just over 2 percent, falling to 1.65 percent after three years, demonstrating that the expense of funding an employed labor buffer stock program would not generate an unwelcome level of inflation.


The Empirics of Long-Term US Interest Rates
TANWEER AKRAM and HUIQING LI

Authors Tanweer Akram, Thrivent Financial, and Huiqing Li, Central University of Finance and Economics (Beijing), examine what drives long-term interest rates in the United States in an attempt to determine why long-term interest rates have remained low despite higher government indebtedness and large fiscal deficits. Using a Keynesian framework to explore this issue both theoretically and empirically, the authors challenge the conventional wisdom that government fiscal balances and
indebtedness as a share of GDP have a discernible effect on government bond yields, and find that it is short-term interest rates that have the greatest effect on long-term interest rates.

In concordance with the Chartalist theory of money, the analysis of the operational aspects of contemporary central banking, and recent developments in mainstream macroeconomics and monetary theory, John Maynard Keynes was of the view that in a country with monetary sovereignty, the key driver of the long-term interest rate is the short-term interest rate, which is primarily set by the actions of the central bank.

To examine this theory, the authors create a model where the long-term interest rate is dependent on the short-term rate and an appropriate forward rate; thus the long-term interest rate is a function of the short-term interest rate and the appropriate forward rate (where the forward rate is a function of the future short-term interest rate and the term premium), with the function of the future short-term interest rate and term premium, in turn, equal to the function of the expected inflation and growth rates. They note that in a world characterized by ontological uncertainty, the investor is forced to take clues about the expected rates of growth and inflation from current conditions (i.e., current inflation rates provide the best estimate of future inflation), making the forward rate a function of the current inflation and growth rates.

Using time-series data on short-term interest rates from nominal yields of three- and six-month US Treasury bills and long-term interest rates from nominal yields of US Treasury securities of various maturities, Akram and Li build a model to empirically test their hypothesis. Other variables include the rate of inflation (core and total), economic activity (year-over-year percentage changes in the seasonally adjusted index of industrial production and annualized rate of GDP growth), and government finance (federal debt, federal deficit, and general government net borrowing/lending, gross liabilities, and net liabilities as a share of nominal GDP). To allow for nonstationary variables and correctly estimate the time-series model, they create a vector error correction model to investigate the relationships under nonstationary cointegration, in order to observe the dynamic relationship of the variables with regard to the question of what influences long-term interest rates. Using augmented Dickey–Fuller and Phillips–Perron tests, they find that the short- and long-term interest rates, as well as the current inflation rate and government finance variable, are nonstationary in their levels but become stationary in their first difference (i.e., period-to-period change).

Cointegration tests find one instance of cointegrating vectors driving the system: the short-term and long-term interest rates. The results also suggest that the long-term interest rate moves stochastically with the short-term interest rate and the rate of inflation but not with the government finance variable.

The authors conclude that the empirical findings of the paper support Keynes’s view that short-term interest rates, as determined by the monetary policy tools of the Federal Reserve, are the most important determinants of long-term interest rates in the United States, and that, controlling for the relevant economic variables, long-term rates on Treasury securities are positively associated with short-term rates on US Treasury bills. They suggest that future research situating their findings in the context of recent developments in macroeconomic theory, as well as in the literature on the coordination between the treasury and the central bank in countries with monetary sovereignty, would be useful.

www.levyinstitute.org/pubs/wp_863.pdf

Japan’s Liquidity Trap
TANWEER AKRAM
Working Paper No. 862, March 2016

Tanweer Akram, Thrivent Financial, investigates the causes of and possible remedies for Japan’s liquidity trap, a situation in which the country has found itself since the onset of stagnation in the Japanese economy in the mid-1990s.

In spite of low short- and long-term nominal interest rates and highly accommodative monetary policy, Japan has not experienced growth for nearly 25 years. Through an evaluation of the existing literature and a review of past and recent economic events, the author seeks to answer some key questions facing economists and policymakers in Japan, including whether monetary easing will be sufficient to revive growth and what measures besides accommodative monetary policy can be taken to achieve sustained economic growth. By answering these questions for the case of Japan, Akram argues, we can find solutions for other countries facing similar issues. Citing John Maynard Keynes’s belief that a liquidity trap arises as a result of a rise in liquidity preference amid heightened
uncertainty, the author suggests a multifaceted solution that includes not only containment of interest rate volatility but also public investment and employment creation to boost the marginal efficiency of capital and raise investors’ confidence.

Following a period of robust growth in private sector credit during the previous decade, the Japanese economy slowed in the 1990s with the bursting of the asset bubbles that had fueled its growth. Exacerbated by the global financial crisis, the Tohoku earthquake, and a tax hike in 2014, both industrial production and labor productivity in Japan have been remarkably weak in comparison to other advanced economies, resulting in a decrease in real income growth. In addition, both public spending and private investment have been flat, with Japanese corporations preferring to invest overseas due to tepid effective demand and the high cost of production domestically.

Japan has the highest ratio of public debt (measured as the ratio of gross and net government debt to nominal GDP) of any advanced economy. While large fiscal deficits have stabilized Japan’s economy and prevented a crisis, there are questions about the effectiveness and efficiency of public spending, as these programs are often of limited social benefit. Efforts to stimulate the economy through occasional increases in discretionary spending or to contract it via fiscal discipline have proven counterproductive, and the government continues to run persistently large fiscal deficits as a share of nominal GDP.

Employment growth has also been disappointing since the mid-1990s, with the bargaining position of the Japanese worker deteriorating, resulting in declining real wages since the late ‘90s. Coupled with weakness in the core consumer price index inflation rate, this has resulted in dampened effective demand. Akram notes that Japanese businesses have benefited from decent profits in tandem with restraint in nominal wage increases and labor costs, resulting in plenty of idle cash available for investment; however, the combined effects of “Abenomics,” monetary easing, and a tax hike that briefly lifted inflationary expectations have dissipated, making it possible for a deflationary mindset to reemerge among investors.

After reviewing the problems that face Japan, the author contends that the solutions depend on the proper diagnosis of the cause of the liquidity trap. In the view of mainstream economists, the principal reason is that the real interest rate remains high, hampering business investment and spending; therefore, the solution lies in raising inflation and expected inflation through monetary policy. In contrast, Senior Scholar Jan Kregel, following Keynes, suggests that a liquidity trap arises from investors’ liquidity preferences (Working Paper No. 298, “Krugman on the Liquidity Trap: Why Inflation Won’t Bring Recovery in Japan”). When the interest rate is already low, investors prefer to hold cash rather than bonds with duration risks, as the opportunity cost of holding money is lower. To revive growth, authorities must therefore use expansionary fiscal policy and direct interventions to induce employment and investment, in tandem with monetary policy actions that reduce interest rate volatility and restore investor confidence.

Akram concludes that while mainstream theory has made some attempts to address the economic problems of Japan, the country remains entrapped by the limitations of the quantity theory of money that informs its policies. Rather than pursue ill-advised programs of fiscal austerity, Japan needs to undertake appropriate structural reforms to raise labor productivity and overcome problems of effective demand that have contributed to the stagnation of the past two and a half decades.

www.levyinstitute.org/pubs/wp_862.pdf

Money, Power, and Monetary Regimes
PAVLINA R. TCHERNEVA

Research Associate Pavlina R. Tcherneva explores the phenomenon of money from a Chartalist perspective, debunking the common myths surrounding the understanding of what money is. Extending her earlier work on Chartalism and revisiting some of the literature on the history of money from a critical perspective to assert the main thesis of her paper—namely, that money is inherently a tool of redistribution—the author emphasizes that money is a social debt relationship and, more specifically, a creature of the state. She adds that money is a social relationship of a particular kind—that is, a power relationship that underwrites the redistribution of real resources among parties. With respect to the relationship of subjects to the state (or some central authority), nonreciprocal taxes and fees imposed by that authority create demand for the money that the authority will accept as payment. To satisfy this obligation, the taxed population must deliver real resources to
the authority. Debt obligations are ultimately settled through the transfer of real resources. In other words, if we accept the thesis that money is debt, then by necessity it is also a tool of redistribution.

Tcherneva notes that economists commit an error in conflating money with the origins of coinage, as it is a well-established fact that money (in the form of clay tablets and other instruments without intrinsic value) was used for at least three millennia before the emergence of coinage. She cites research by Senior Scholar John Henry, who argues money was not needed in tribal societies and only emerged once society became hierarchical and produced an agricultural surplus, with a central authority levying taxes to redistribute the surplus (real resources) from the population to the palace. Tcherneva believes that discrediting the notion that money emerged from a voluntary market transaction where agents engage in mutually beneficial exchange, and instead seeing it as the social power relationship it truly is, is the key to understanding modern monetary systems.

The author revisits several historical cases to illustrate that a successful transition to political sovereignty requires achieving monetary sovereignty, examining various cases of nations’ pursuit of independence from their colonial powers to highlight the inherent redistributive functions of the state, which historically have been employed for good or ill. Tcherneva further examines the policy space that is available to different states under modern monetary regimes for the pursuit of their various redistributive functions. She thus sheds new light on the possibilities for implementing public policies in the public interest in the modern context.

Since modern governments with a sovereign currency settle their debts and pay for expenditures by issuing their own liabilities in the form of reserves, notes, coins, and government debt, this means that modern money is a simple public monopoly. The private sector offers labor, goods, and services to obtain this currency, which it can use to settle its compulsory obligations (taxes) to the state. By collecting real resources from the private sector, the state can redistribute them to the public sector to finance whatever social welfare functions it has been asked to fulfill by the voters. As a monopoly issuer of currency, the state is never financially constrained by tax collections; thus taxation represents a “real resource transfer mechanism” rather than a “funding mechanism.”

The author argues that this distinction is important in policymaking, especially for nations without monetary sovereignty (such as currency unions). She cites currency boards and hard peg currency arrangements for keeping the colonies of the British Empire dependent on exporting real goods to the colonial power in order to obtain British pounds and expand the domestic money supply, constraining growth in the colonies and allowing for continued resource extraction by Britain. Only when a colony was able to achieve monetary sovereignty could it achieve complete independence. Tcherneva also notes that from this perspective, counterfeiting becomes a tool of financial warfare, as evidenced by British actions during the American Revolution and the world wars, as well as by the United States in Vietnam and Cuba. By correctly considering money as a public good, we can see that counterfeiting is, in fact, a pervasive private sector market phenomenon that requires theorization and not a simple irregularity from the generally smooth functioning of the markets.

Tcherneva concludes that we must move away from a theory of money that views government control over the monetary system as an inefficiency and toward a more correct understanding of the origins, role, and function of money, in order to adequately assess contemporary economic problems and employ the monopoly powers of the state to design public policies to promote full employment and price stability.


---

**Program: The Distribution of Income and Wealth**

**Measuring Poverty in the Case of Buenos Aires: Why Time Deficits Matter**

RANIA ANTONOPOULOS, VALERIA ESQUIVEL, THOMAS MASTERSON, and AJIT ZACHARIAS


Senior Scholar Rania Antonopoulos, Research Associate Valeria Esquivel, Research Scholar Thomas Masterson, and Senior Scholar Ajit Zacharias consider the impacts of job creation and other poverty-alleviation programs in Argentina.
on the income and time poverty of program beneficiaries in Buenos Aires.

Using a synthetic dataset created by statistically matching the 2005 Buenos Aires Time-Use Survey (BA-TUS) with the 2005 Encuesta Anual de Hogares (Annual Household Survey) (EAH), the authors produce estimates of the Levy Institute Measure of Time and Income Poverty (LIMTIP), which factors in the impacts of both paid work and unpaid care work on overall household well-being. To estimate the value of household production work, the authors monetize the time deficit using unit replacement costs set to the average hourly wage of domestic workers and add this to the official income-poverty threshold. If a household does not have enough income to buy the poverty-level consumption basket and cover the costs of outsourcing its household reproduction needs, it is facing a poverty-inducing time deficit. Time constraints related to unpaid household production work often go unconsidered in policy formation, creating pockets of “hidden poverty” in which households above the official income-poverty line still face deprivations in terms of time. The authors’ findings indicate that these time deficits, which affect women and children at a higher rate than men, matter in understanding the extent, depth, and incidence of poverty. Ultimately, the LIMTIP analysis makes clear that social policies to combat time deficits need to be considered jointly with economic policies intended to address income poverty.

The authors note that while being employed is a necessary condition for improving one’s living conditions, it is not always sufficient. Given that access to the necessities of life is not gained solely through items purchased with monetary income but also through unpaid household production and care activities, these activities need to be accounted for in order to provide a complete picture of the deprivations households and individuals face. They define a “poverty-level time requirement” as the amount of time a household needs to spend on production activities to survive with an income that is close to the official income poverty line. As hours in the day are limited and certain activities (like sleeping and bathing) are not substitutable, it is common for some households to be time poor even though by official measures they are income nonpoor. For Buenos Aires, the authors find that once the official threshold has been adjusted by the replacement value of household time deficits, the poverty rate nearly doubles, leading them to conclude that the current methodology grossly underestimates the incidence of poverty.

The authors also find that half of the households that are officially classified as income nonpoor are time poor—these are the “hidden poor.” With nearly 60 percent of all adults in Buenos Aires living in a household considered to be among the hidden poor, and 80 percent of all children living in households that face time poverty, the authors contend that poverty-alleviation programs should account for the time deficits faced by those who are officially above the income poverty line.

Using a microsimulation exercise (as described in appendix B of the 2012 UNDP–Levy Institute research project report Why Time Deficits Matter: Implications for the Measurement of Poverty), the authors model a hypothetical situation in which all employable adults are employed full time. By assigning jobs and earnings in line with the labor market and the demographic characteristics of each potential worker, the authors replicate the actual industry-occupation employment structure and distribution of earnings. They find that while some households would not earn enough to rise out of poverty and others might face increased time poverty, it appears that official income poverty would measurably decrease if every employable adult were to work full time, but the incidence of time poverty, as measured by LIMTIP, would rise dramatically. Slightly more than half of the income-poor would not be lifted out of poverty—these are the “hard-core poor.” To alleviate poverty for this group, the provision of a job is not enough: labor market regulation, government transfers, or other similar strategies must accompany job creation. Simply providing employment does not eliminate the need for care work to be undertaken. Unless policies address the time deficits this unpaid work creates, individuals—especially women—stand to be more vulnerable to time poverty.

New Research Associate

Yana van der Meulen Rodgers has joined the Levy Institute as a research associate working in the Gender Equality and the Economy program. She is a professor in the Women’s and Gender Studies department at Rutgers University and previously taught economics at the College of William and Mary. Her areas of research include economics of gender, nutrition and food policy, and development economics. Many of her studies have focused on the economies of East and South Asia. Rodgers has published numerous articles in refereed economics journals, including *World Development*, *Industrial and Labor Relations Review*, *Global Social Policy*, *Asian Development Review*, *Journal of Labor Economics*, and *Gender and Development*. She is the author of *Maternal Employment and Child Health: Global Issues and Policy Solutions* (Edward Elgar, 2011) and a coeditor of *Social Justice and Gender Equality: Rethinking Development Strategies and Macroeconomic Policies* (Routledge, 2009) and *Inequality, Development, and Growth* (Routledge, 2011). She is a past president of the International Association for Feminist Economics and has served as associate editor of the journal *Feminist Economics* since 2005. She has also worked regularly as a consultant for the World Bank, the United Nations, and the Asian Development Bank.

Rodgers holds a BA in economics from Cornell University and an MA and a Ph.D. in economics from Harvard University.

Save the Date

26th Annual Hyman P. Minsky Conference
Levy Economics Institute of Bard College
Annandale-on-Hudson, New York
April 18–19, 2017

Recent Levy Institute Publications

**STRATEGIC ANALYSIS**

*Destabilizing an Unstable Economy*
DIMITRI B. PAPADIMITRIOU, MICHALIS NIKIFOROS, and GENNARO ZEZZA
March 2016

*How Long Before Growth and Employment Are Restored in Greece?*
DIMITRI B. PAPADIMITRIOU, MICHALIS NIKIFOROS, and GENNARO ZEZZA
January 2016

*Greece: Conditions and Strategies for Economic Recovery*
DIMITRI B. PAPADIMITRIOU, MICHALIS NIKIFOROS, and GENNARO ZEZZA
May 2015

*Fiscal Austerity, Dollar Appreciation, and Maldistribution Will Derail the US Economy*
DIMITRI B. PAPADIMITRIOU, GREG HANNSGEN, MICHALIS NIKIFOROS, and GENNARO ZEZZA
May 2015

**RESEARCH PROJECT REPORTS**

*The Impact of Public Investment in Social Care Services on Employment, Gender Equality, and Poverty: The Turkish Case*
İPEK İLKKAÇAN, KIJONG KIM, and TOLGA KAYA
August 2015

*Responding to the Unemployment Challenge: A Job Proposal for Greece—An Addendum*
RANIA ANTONOPOULOS, SOFIA ADAM, KIJONG KIM, THOMAS MASTERSON, and DIMITRI B. PAPADIMITRIOU
May 2015

*Reforming the Fed’s Policy Response in the Era of Shadow Banking*
April 2015
The Measurem ent of Tim e and Incom e Poverty in Korea: The Levy Institute Measure of Tim e and Incom e Poverty
AJIT ZACHARIAS, THOMAS MASTERSON, and KIJONG KIM
August 2014

POLICY NOTES
The Narrow Path for Brazil
FERNANDO J. CARDIM DE CARVALHO
2016/2

Complementm ary Currencies and Economic Stability
DIMITRI B. PAPADIMITRIOU
2016/1

The US Census Asks About Race and Ethnicity: 1980–2020
JOEL PERLMANN and PATRICK NEVADA
2015/8

Losing Ground: Trends in US Labor Force Participation
FERNANDO RIOS-AVILA
2015/7

What Should Be Done with Greek Banks to Help the Country Return to a Path of Growth?
EMILIOS AVGOULEAS and DIMITRI B. PAPADIMITRIOU
2015/6

PUBLIC POLICY BRIEFS
What We Could Have Learned from the New Deal in Confronting the Recent Global Recession
JAN KREGEL
No. 141, 2016

The ECB, the Single Financial Market, and a Revision of the Euro Area Fiscal Rules
MARIO TONVERONACHI
No. 140, 2015

Back to the Future
JAN KREGEL
No. 139, 2015

After Austerity
Measuring the Impact of a Job Guarantee Policy for Greece RANIA ANTONOPOULOS, SOFIA ADAM, KIJONG KIM, THOMAS MASTERSON, and DIMITRI B. PAPADIMITRIOU No. 138, 2014

The ECB and the Single European Financial Market
A Proposal to Repair Half of a Flawed Design MARIO TONVERONACHI No. 137, 2014

ONE-PAGERS
A Complementm ary Currency and Direct Job Creation Hold the Key to Greek Recovery DIMITRI B. PAPADIMITRIOU, MICHALIS NIKIFOROS, and GENNARO ZEZZA No. 52, 2016


A Public Investment Priority for Job Creation in Turkey: Expanding Child Care and Preschool Services İPEK İLKARACAN, KIJONG KIM, and TOLGA KAYA No. 50, 2015

Lending Blind: Shadow Banking and Federal Reserve Governance in the Global Financial Crisis MATTHEW BERG No. 49, 2015

Can Reform of the International Financial Architecture Support Emerging Markets?
JAN KREGEL No. 48, 2015

WORKING PAPERS
Have We Been Here Before? Phases of Financialization within the 20th Century in the United States APOTOLOS FASIANOS, DIEGO GUEVARA, and CHRISTOS PIERROS No. 869, June 2016
From Antigrowth Bias to Quantitative Easing: The ECB’s Belated Conversion?
JÖRG BIBOW
No. 868, June 2016

The Greek Public Debt Problem
MICHALIS NIKIFOROS, DIMITRI B. PAPADIMITRIOU, and GENNARO ZEZZA
No. 867, May 2016

Going Forward from B to A: Proposals for the Eurozone Crisis
MASSIMO AMATO, LUCA FANTACCI, DIMITRI B. PAPADIMITRIOU, and GENNARO ZEZZA
No. 866, May 2016

Measuring Poverty in the Case of Buenos Aires: Why Time Deficits Matter
RANIA ANTONOPOULOS, VALERIA ESQUIVEL, THOMAS MASTERSON, and AJIT ZACHARIAS
No. 865, May 2016

Maximizing Price Stability in a Monetary Economy
WARREN MOSLER and DAMIANO B. SILIPO
No. 864, April 2016

The Empirics of Long-Term US Interest Rates
TANWEER AKRAM and HUIQING LI
No. 863, March 2016

Japan’s Liquidity Trap
TANWEER AKRAM
No. 862, March 2016

Money, Power, and Monetary Regimes
PAVLINA R. TCHERNEVA
No. 861, March 2016

Looking Into the Abyss? Brazil at the Mid-2010s
FERNANDO J. CARDIM DE CARVALHO
No. 860, February 2016

The 2030 Sustainable Development Goals and Measuring Gender Inequality: A Technical Articulation for Asia-Pacific
BHAVYA AGGARWAL and LEKHA S. CHAKRABORTY
No. 859, February 2016

Gender Dimensions of Inequality in the Countries of Central Asia, South Caucasus, and Western CIS
TAMAR KHITARISHVILI
No. 858, January 2016

JOEL PERLMANN and PATRICK NEVADA
No. 857, December 2015

Redistribution in the Age of Austerity: Evidence from Europe, 2006–13
MARKUS P. A. SCHNEIDER, STEPHEN KINSELLA, and ANTOINE GODIN
No. 856, December 2015
**INNOVATIVE RESEARCH. EFFECTIVE SOLUTIONS.**

Innovation is central to the Levy Institute’s strategy for producing research that leads to constructive public policy. Over the past three decades we’ve developed new, accounting-based macro models and more comprehensive poverty measures. We’ve devised new approaches to financial regulation, as well as employment strategies to ensure true economic recovery and long-term stability. In areas like macroeconomic and trade policy, income inequality, sustainable development, job creation, gender equity, institutional reform, and democratic governance we’ve provided the nonpartisan, objective research and analysis policymakers need to make smart decisions.

**Your support helps make this work possible.** Our donors play a key role in sustaining the independence and impact of our work, which is essential to informing policy debates and developing effective solutions to public policy challenges. They help fund our people, ideas, and outreach. And they provide scholarship support to deserving students in our new master’s degree program in economic theory and policy, which is centered on active research initiatives to solve real-world problems.

The work of the Levy Economics Institute is literally indispensable, and probably irreplaceable. Levy researchers delve deeply into areas to which other think tanks barely pay attention, such as income inequality, for example. Thank heaven for Levy.

—Alan S. Blinder, former vice chairman of the Federal Reserve Board

---

**Become a Friend of the Levy Institute by making a gift today.**

We offer a number of ways to give:

**30th Anniversary Fund**

This unrestricted fund provides the broadest level of support for our core activities. Your gift, regardless of size, helps us advance important research, expand our public outreach, and strengthen our scholarship program. To contribute to the Fund, please use the attached form, or you may donate online at levyinstitute.org.

**Matching Gifts**

Many employers match philanthropic gifts made by employees or their families, doubling the impact of your gift. You can request a matching gift form from your company’s human resources office. Send the completed form to us along with your gift or pledge. We’ll do the rest.

**Partnerships**

Donors may choose to partner with the Institute by directing their gift toward the support of a specific program, research project, or event. To learn more about specific giving opportunities, please call us at 845-758-7700 or e-mail dbp@levy.org.

**Planned Giving**

Including the Levy Institute in your estate planning is a great way to have lasting impact on our work. For more information, contact the President’s Office at 845-758-7700 or check the appropriate box on the form below.

The 30th Anniversary Fund is a multiyear campaign to raise $500,000 to support the Institute’s core activities.

---

**30th Anniversary Fund**

Celebrate the Levy Institute’s 30th year with a single gift of □ $30,000 □ $3,000 □ $300 □ $30 □ $_____________ or make a monthly gift of $_____________ for _______ months.

**Method of Payment**

□ A check made payable to the Levy Economics Institute of Bard College is enclosed.

□ Bill my (check one) □ American Express □ Discover □ MasterCard □ Visa

<table>
<thead>
<tr>
<th>Account number</th>
<th>Expiration date</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Name as it appears on card

Name as it should appear in donor listings

□ I would like to remain anonymous in all donor listings.

Address

<table>
<thead>
<tr>
<th>City</th>
<th>State</th>
<th>Zip</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Telephone</th>
<th>E-mail</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

□ Please send me details on ways to provide for the Levy Institute in my will or through other estate-planning gifts.

Thank you for your continued support.

Please return your donation to: Levy Economics Institute of Bard College, Blithewood, PO Box 5000, Annandale-on-Hudson, NY 12504-5000

All donations to the Levy Economics Institute of Bard College are tax deductible to the fullest extent of the law. The College is a 501(c)(3) organization.
Levy Economics Institute

Master of Science in Economic Theory and Policy

Designed as a terminal degree with a professional focus, this innovative two-year program combines coursework in economic theory, policy, and modeling with the exceptional opportunity to engage in advanced research at the Levy Economics Institute.

Small class sizes, rigorous academics, and faculty-mentored research within a professional environment provide those seeking appointments in the nonprofit and government sectors or in private consulting and investment firms the experience they need. It also provides excellent preparation for students who ultimately go on to pursue a Ph.D.

For more information, including an application checklist and financial aid forms, visit www.bard.edu/levyms.

You can apply now for Fall 2017 at connect.bard.edu/apply.

Application deadlines
Early Decision: November 15  |  Regular Decision: January 15

Contact
845-758-7776  |  levyms@bard.edu