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The Levy Economics Institute of Bard College, founded in 1986, is a nonprofit, nonpartisan research organization devoted to public service. It depends on the financial support from individuals, corporations, and private foundations to carry out its scholarly and economic research generating viable, effective public policy responses to important economic issues.

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LETTER FROM THE PRESIDENT

To our readers:

We begin this issue with the latest strategic analysis for Greece under the US and World Economies program. Research Scholars Michalis Nikiforos and Gennaro Zezza and I present our assessment of the current conditions in Greece and simulations of several policy alternatives to address the ongoing crisis. We argue for the creation of a parallel financial system (currency) in the form of a new bond, the Euro, to be issued by the Greek government and used in part to fund a job guarantee program following Hyman Minsky's employer-of-last-resort (ELR) proposal. This approach would enable Greece to meet its debt obligations while confronting the corrosive effects of unemployment and the lack of demand. While this path would entail a small but manageable increase in the deficit, it represents an opportunity to return to economic growth and increase employment quickly and responsibly.

Also under this program, Philip Pilkington provides an updated version of a proposal for tax-backed bonds he authored in 2012 with Warren Mosler. This policy note addresses criticisms of the proposal and offers clarifications in light of the introduction of the Outright Monetary Transactions program by the European Central Bank in 2012. In a second policy note, Research Associate and Policy Fellow C. J. Polychroniou debunks the argument that Greece is an economic success story. In his estimation, the continued economic and social consequences of the troika's austerity policies belie any definition of “success.”

The Monetary Policy and Financial Structure program opens with Amit Bhaduri’s policy brief on the theory of demand management and how it has fared in recent years. He finds that policies described as “Keynesian” are little more than vulgar justifications for neoclassical economic policies that run counter to what John Maynard Keynes taught. Senior Scholar Jan Kregel contributes a timely policy note on lessons we might draw from past debt ceiling debates. He examines a proposal made by US Representative Wright Patman in 1943 to fund government debt at zero interest rates. The lessons Kregel draws from Patman’s proposal remind us that financing the debt is not the issue, and that the government can finance the public debt at any rate without losing control of interest rates as a monetary policy tool.

In the first of three working papers under this program, Senior Scholar L. Randall Wray and Xinhua Liu follow with a discussion of the policy choices China faces using a sovereign currency approach. Because China is a sovereign currency-issuing country, it can exercise a wider range of policy choices and pursue its economic growth objectives at a pace that is consistent with its development goals. Wray and Liu suggest that China consider loosening central government budgets while tightening the position of local government and corporate debt levels. Next, Bernard Shull examines financial crisis resolution and Federal Reserve governance from a historical perspective. And in his paper, Éric Tymoigne shows how many of the insights of Modern Money Theory are visible in both the early history of the American colonies and in the operations of the US Treasury and Federal Reserve.

Under the Gender Equality and the Economy program, Research Associate Lekha Chakraborty contributes a working paper on the role of time-use statistics in the empirical analysis of gender-specific outcomes in the budgeting process. Burça Kizilirmak, Emel Memiş, Şirin Saraçoğlu, and Ebru Voyvoda contribute to the debate on the employment effects resulting from North-South trade during the past several decades. They examine the employment trends in 23 manufacturing industries for the period 1995–2006 in 30 countries.

In a policy note under the Employment Policy and Labor Markets program, Research Associate Pavlina R. Tcherneva outlines a proposal to implement a job guarantee program for all who are willing and able to work. She recommends harnessing social enterprise ventures (nonprofits and community-based organizations) to develop and run projects. In a related paper, Tcherneva discusses Keynes’s full employment proposal, Minsky’s ELR, and examples of job guarantee programs from around the world. In a working paper, Research Scholar Fernando Rios-Avila examines the dynamics between unions and economic performance with case studies from six Latin American countries. He investigates union productivity effects and impacts on firm profitability in Argentina, Bolivia, Chile, Mexico, Panama, and Uruguay.

Pilkington employs a stock-flow approach to develop a general theory of pricing in the first of three papers under the Economic Policy for the 21st Century program. His investigation yields a number of insights consistent with the work of Hyman Minsky. Rios-Avila contributes to a growing literature
on estimation strategies that overcome the computational constraints often encountered in models with more than one fixed effect. He provides a detailed discussion of his approach and an implementation of his method. Finally, Iván H. Ayala and Alfonso Palacio-Vera close this issue with a nuanced exposition of Karl Popper’s philosophy in their paper on the rational expectations hypothesis (REH). They clarify some of the inherent biases of the REH as they pertain to macroeconomic modeling.

As always, I welcome your comments and suggestions.

Dimitri B. Papadimitriou, President
Levy President Dimitri B. Papadimitriou and Research Scholars Michalis Nikiforos and Gennaro Zezza present a series of simulations to address the ongoing economic and social crisis in Greece. The authors first review the current conditions in Greece, and the ongoing damage caused by the troika’s policies and the lack of an appropriate response to date. Using the Levy Institute Model for Greece (LIMG), they simulate projected impacts of austerity using the most recent data available before turning to three policy scenarios. They propose a parallel financial system to support expansionary fiscal policy and fund a job guarantee program.

Despite the pronouncements that the worst of the eurozone crisis is past and the Greek economy is poised to reenter a period of economic growth, the authors conclude that the Greek economy shows scant evidence of improving. More than three years after the first bailouts, Greece’s debt-to-GDP ratio stands at 175 percent, up from 125 percent before the “rescue.” Job creation remains weak. A recent report by the Bank of Greece revealed that lending to the private sector fell in December 2013 by 3.9 percent, much faster than the rest of the eurozone contraction of 2.3 percent during the same period. High borrowing costs continue to be an obstacle to economic growth, with average real interest rates hitting 8.3 percent in November 2013. In addition, depleted savings, increased tax burdens, and ominous trends toward price deflation make it difficult to share in the optimism that Greece has “turned the corner.”

Unemployment is at the center of Greece’s economic challenges (Figure 1). Though job losses have slowed recently, total unemployment currently exceeds 27 percent, with male unemployment rates nearing 24 percent and female unemployment at a staggering 31 percent. Weakness in the industrial production and the new orders indices show stagnation and decline, not growth. These are the results of “expansionary austerity.”

Using a financial balances approach, the authors show that for the Greek economy to grow at a stable rate while government reduces expenditures, the external sector must expand while not damaging the private sector balance. An export-led recovery based on improved price competitiveness was the troika’s prescription for Greece. Toward this goal, nominal wages have been lowered by 23 percent and real wages by nearly 28 percent, but with limited impact on prices and doubtful impacts on the export sector. The trends in exports show little indication of improved competitiveness relative to other euro countries. Further, most of the recent increase in exports can be attributed to oil-related products sold to non-EU countries, which is beneficial in the short term but hardly a recipe for stable growth.

An analysis of the components of real GDP using data from the third quarter of 2013 shows that falling imports contributed substantially to GDP growth, but consumption continues to drive aggregate demand contraction. Investment trends have been unstable, improving slightly in some quarters, only to stumble back into negative territory in the next
quarter. All indications suggest that the International Monetary Fund (IMF) forecast of a 0.6 growth rate for Greece in 2014 is untenable. Finally, based on an analysis of macroeconomic sectoral accounts, the claim that Greece will show a primary surplus for 2013 seems unlikely (Figure 2). It is more likely that the general government deficit will decline as a result of additional austerity measures. These sobering conditions provide the inputs for the authors’ baseline scenario.

In contrast to the IMF’s projections, the authors find that meeting the troika’s targets will require additional reductions in government spending, particularly in the area of social benefits. They also assume that tax rates will remain at their current historically high levels of the third quarter of 2013. This scenario makes a number of neutral assumptions as well, such as lower price deflation in 2014, stable exchange rates, and slowing private sector deleveraging. The results of the simulation show an improvement in the external balance as a result of falling imports, which later deteriorates in 2015 as GDP grows. Under this scenario, deficit targets are achieved but with no improvement in employment or growth within the projection period. With Greece caught between contracting private domestic demand and anemic gains in net exports, the authors renew their call for a Marshall-type plan to restore the economy. The present analysis extends the LIMG results presented in the summer of 2013 by taking up the question of how to fund such an initiative.

The first alternative involves funding through a public debt management strategy. All of Greece’s public debts would be frozen and interest payments suspended, and creditors would be persuaded to roll over maturing debt during the three-year simulation period. The funds made available through these actions would come from a reduction in net interest payments abroad, and would be used to increase public investment and direct job creation. However, despite the similarities of this approach to the Marshall-type plan, this strategy is less effective as the overall level of funding is lower.

The second alternative is to fund a Marshall-type plan with a new loan of European development bonds financed at a low rate of 1 percent. This approach is virtually identical to the first alternative but brings with it increased public debt, additional monitoring from the troika, and potential complications accessing debt finance in the open market. The authors next explore the feasibility of a parallel financial system as a way out of the crisis.

The authors survey the wide range of proposals that have been made in recent years for a parallel financial system (currency) for Greece. Lacking a consensus among the proponents for what an “ideal” policy would contain, the authors offer a conspectus of the key issues. These include the bond’s convertibility and backing, quantity to be created, denomination of transactions, conversion of assets held by domestic residents, and how to denominate foreign debts. Drawing on these proposals, the authors outline a scenario based on the introduction of a parallel currency: the Geuro bond.

The authors clearly state that the purpose of creating a parallel currency is to restart the Greek economy as quickly as possible without exiting the euro. Creating jobs and sustaining demand for domestic firms must be paramount. Before simulating the effects of the Geuro, they assess the impact of increased competitiveness on Greece’s balance of trade and on the effectiveness of devaluing a parallel currency to spur net exports. These issues hinge on the price elasticity of Greek trade, which, based on their analysis, does not show very significant price effects. The estimated price elasticity of goods exports is 0.5 and the price elasticity of goods imports is slightly higher at 0.6. Thus, internal devaluation will lower export prices but not enough to effect a recovery. The authors find little reason to conclude...
that a recovery strategy based on export-led growth through price competitiveness could succeed.

Rather than promoting price competitiveness, they argue that a parallel currency should be used to restore liquidity in domestic markets and provide liquidity for expansionary fiscal policy, while Greece remained in the euro and continued to honor all existing debt obligations and agreements. The new financial system would issue zero-coupon government bonds that would be both perpetual and transferable. The bonds would be backed by tax receipts and convertible in one direction only (i.e., euro to Geuro), and limited in their use to domestic markets.

The first Geuro scenario simulates extinguishing government debts with the domestic sector, paying unemployment benefits, and paying a portion of public sector wages. While the first simulation shows an increase in GDP, the projected impact is modest in comparison to the baseline scenario (Figure 3). The introduction of a parallel currency alone would not affect employment levels sufficiently without fiscal stimulus.

The final scenario relies on a parallel currency to finance a direct job creation program, consistent with Hyman Minsky’s “employer of last resort” (ELR) proposal. The proposed level of job creation under the ELR scenario is 550,000 jobs at a gross cost of 7.5 billion euros, which is paid out largely in Geuros. An additional 156,000 jobs are created as an indirect effect. Government tax receipts increase by 4 billion euros, which brings the net program cost down to 3.5 billion euros. GDP increases by 7 percent over the baseline scenario. The balance of payments deteriorates somewhat but remains manageable. This scenario assumes that Greece continues to honor its debt agreements. However, a debt freeze policy could be added to the ELR program to support employment and domestic demand in a manner that is sustainable over the medium term (Figure 4). The authors caution that as Greece increases domestic demand some of the damage wrought by austerity during the past several years may become an obstacle to growth. The country will need an industrial policy to ensure that rising demand does not increase imports to the detriment of the domestic economy.

In conclusion, austerity has not and will not return Greece to the levels of growth and employment consistent with a healthy economy and stable society. Over three years of austerity have shown that economic recovery will not be achieved through unemployment and fiscal contraction. The creation of a parallel currency offers Greece a way forward without exiting the euro or surrendering its future to austerity.

The Continued Relevance of Tax-backed Bonds in a Post-OMT Eurozone

PHILIP PILKINGTON
Policy Note 2013/10, December 2013

Philip Pilkington, Kingston University, updates an earlier Levy Institute publication co-authored with Warren Mosler (Policy Note 2012/4) on tax-back bonds as a strategy to resolve the sovereign debt crisis without the assistance of the European Central Bank (ECB) and without abandoning the currency union. Their proposed financial innovation was similar to standard government bonds except that, in the event of a default, the bonds could be used to pay taxes in the issuing country and would continue to earn interest. This policy note reviews the developments in ECB policy since they published their original proposal. Pilkington also examines the objections of Ireland’s finance minister as a case study in how other eurozone countries might react to tax-backed bonds. And, finally, he reviews critics’ reactions to the proposal and discusses other areas in which the proposal might be applied. The discussion begins with a review of developments in the eurozone since 2012.

Peripheral countries have seen dramatic declines in sovereign yields as a result of two related causes. The first was Mario Draghi’s promise that the ECB would “do whatever it takes” to ensure that none of the peripheral countries defaulted. Markets correctly anticipated this move, which was reflected in the decline of sovereign yields prior to July 2012. In addition, the ECB announced the Outright Monetary Transaction (OMT) program shortly after Draghi’s speech. The program guarantees unlimited financing to suppress sovereign debt yields and required participating countries to implement strong-arm austerity policies. These two changes appear to have reassured investors that returns on sovereign debt would continue to be secure and attractive.

Pilkington argues that while these moves appeared to remove the need for tax-backed bonds, in fact they did not. The sovereign debt yields of some countries (e.g., Greece and Portugal) remained well above their historical trend levels; tax-backed bonds would enable these countries to further lower yields. More important, the OMT requires austerity measures that have damaging results for national economies; tax-backed bonds would provide an alternative financing method while restoring national fiscal independence.

Pilkington turns next to some of the criticisms tax-backed bonds have received. Beginning with the most significant objections raised by the Irish finance ministry, he discusses the concern that tax-backed bonds would conflict with pari passu clauses in existing bonds. The concern is that holders of the bonds would receive preferential treatment in terms of payment obligations. This concern is readily addressed by either revising the clauses of all bonds or by creating a swap program wherein bondholders could choose to convert their holdings to tax-backed bonds. Another concern raised by critics addresses the possibility that the tax-backed bonds would be denominated far in excess of the amounts needed by those paying taxes. The author argues that intermediation by banks would provide the means to resolve this genre of concerns. Other critics have raised the objection that some countries, such as Greece, face tax collection issues. Pilkington allows that adequate tax collection systems are essential to the success of the proposal. An unavoidable first step in launching a tax-backed bond program would involve ensuring the presence of adequate and stable tax liabilities as well as an effective collection system.

If Europe does not avail itself of viable financial innovations, it risks years or decades of economic stagnation, unemployment, and lost opportunity. Since Pilkington and Mosler published their original proposal, the consensus of opinion has turned away from austerity policies, yet European political institutions seem unable to respond to the changing economic realities in Europe. The author concludes that tax-backed bonds continue to be a relevant policy response in a post-OMT context for eurozone countries, especially for those countries that find continued austerity unacceptable or that decide to engage in pro-growth fiscal stimulus.


The Myth of the Greek Economic “Success Story”

C. J. POLYCHRONIOU
Policy Note 2014/3, February 2014

Research Associate and Policy Fellow C. J. Polychroniou critically evaluates the claim that Greece is on a path to economic recovery. He finds recent characterizations of Greece’s “success” woefully inaccurate. Instead, Greece’s economy and society continue to be stifled or actively dismantled by the troika’s failed policies.
The author finds many parallels between the experience of Latin American countries under policies imposed by the International Monetary Fund (IMF) during the 1980s and current conditions in Greece. Unless action is taken quickly to reverse these policies, he argues, Greece will continue on a path to social and economic ruin. Describing Greece as a “success,” he concludes, is perverse by all but the most brutal standards.

Polychroniou evaluates the claim of success by first recalling that during the previous six years GDP contracted by a total of 25 percent and unemployment climbed to over 27 percent. The official claim that Greece has “turned the corner” rests on the government’s claim that the 2013 current account deficit has been eliminated and that a small primary budget surplus has been achieved. Prime Minister Antonis Samaras has described these two figures as evidence that austerity has worked, despite the fact that the Greek debt-to-GDP ratio remains in the vicinity of 170 percent.

Polychroniou rejects this claim. He observes that the policies imposed on Greece bear great similarity to the policies imposed on Latin America by the IMF in the ‘80s. The IMF’s neoliberal structural adjustment reforms required liberalization, privatization, and deregulation in much the same manner that Greece has been transformed in order to meet the troika’s bailout requirements. Polychroniou recalls the findings of the Structural Adjustment Participatory Review International Network (SAPRIN), prepared in cooperation with the World Bank, national governments, and civil society organizations. The report, released in 2002, found that structural adjustment programs failed to create healthy economies. Instead, such programs are associated with regressive privatization costs, loss of sovereignty over privatized services, deterioration of employment, increased inequality, and a lack of transparency in the privatization process. Despite this track record, the IMF was invited to become one of the architects of the rescue plans implemented in Europe. The results for Greece have been abysmal.

Greece’s deficit has been reduced but at a tragic cost. Unemployment passed 27 percent in the third quarter of 2013 and youth unemployment stands at 60 percent; GDP fell in the first three quarters of 2013; wages have declined by nearly 25 percent in the last three years and purchasing power has fallen by 37 percent during the same period; and domestic demand has fallen by nearly a third. Further, the troika required Greece to sell many state-owned enterprises; the declines in the current account have come not from improvements in the Greek economy but from the deterioration of conditions for working-class Greeks; exports, which were expected to rebound following internal devaluation, declined between 2012 and 2013; industrial production is down; and the small- and medium-size business sector contracted by 27 percent between 2012 and 2013. The dismantling of the Greek economy has led to reduced social protection. Notably, the public health system has virtually collapsed under the weight of severe budget cuts, and the education system has been similarly hobbled. The human cost of these cuts is enormous and will continue to affect Greece’s economy and society in the future.

Polychroniou notes that Greece’s decline may end in the next few years. However, an end to economic contraction is, he argues, an indication that the economy has hit rock bottom, not proof that the troika’s policies have caused a turnaround. Real economic recovery requires massive and coordinated investment—a Marshall Plan for Greece—to repair the economy and safeguard the future of the eurozone. Sadly, the political leadership of Europe remains unwilling to undertake such measures. Today, one in three Greeks is in or near poverty, while the richest Greeks have increased their wealth by 20 percent. Thus far, the economic and human costs are all too evident, while the success of austerity policies is far from obvious.


Program: Monetary Policy and Financial Structure

What Remains of the Theory of Demand Management in a Globalizing World?

AMIT BHADURI
Public Policy Brief No. 130, 2014

Amit Bhaduri, Jawaharlal Nehru University, examines the current state of the theory of aggregate demand management. He finds that John Maynard Keynes’s theory of aggregate demand management has been recast and vulgarized in recent decades along neoclassical lines. Contemporary mainstream theory, operating within the context of globalized, finance-dominated
capitalism, offers what it refers to as “Keynesian” policies. Contrary to what Keynes proposed, these policies restrict public spending and advance tax policies that exacerbate inequality. It would seem that the theory of demand management has been aligned with the interests that drive the globalized financial system. These policies set the stage for financial instability and the all-too-familiar public rescue of the financial sector, but not the real economy.

The theory of aggregate demand management remains a central tenet of Keynesian economics. Perhaps the most familiar example is the idea of a “stimulus doctrine,” which has come to mean government and central bank support for financial institutions—and, by extension, asset prices and debt-financed consumption—instead of supporting the real economy through deficit spending and public investment. This approach, often referred to as Keynesian, neglects the framework laid out by Keynes and Michał Kalecki.

Bhaduri explains that many economists who style themselves as Keynesians are in fact working in a neoclassical mode, relying on such things as representative maximizing agents and long-run equilibrium positions. The core contribution of Keynes and Kalecki is informed by a different set of propositions. For example, Keynes was clear that the analogy between the household and the economy does not hold due to the circular flow of expenditures and income in the national economy. In a recession, additional income in response to higher expenditures is created through increases in production; prices respond to money wages and output responds to demand, which allows independent price and quantity determination. Further, the theory of demand management was explicitly set within the context of a closed economy, without foreign trade. This approach focused debate on national policies targeting domestic markets. The context of the economic policy has been drastically altered by globalization.

Today, countries are tightly linked through multinational corporations and globalized finance. Indeed, because of its sheer size, global finance quantitatively overwhelms all other trade in goods, services, and foreign direct investment in physical assets. The rise of shadow banking has shifted the center of gravity in the financial sector, creating a separate network of mutual private debt contracts, guarantees, and insurance but with hardly any supervision or any formal guarantee provided by a lender of last resort.

Within this context, national economic policies affect expectations for capital gains and losses, which in turn affect national exchange rate policies. The fear of capital outflows resulting from fiscal policy inhibits national governments from exercising traditional (i.e., genuinely Keynesian) demand management policies. Thus, budget policy that might otherwise embrace spending to bring about full employment is stymied.

Further, under this new regime of globalized finance, demand management takes a perverse form that is compatible with economic austerity policies. It does so in the name of sound finance and establishes the authority structure of finance-dominated capitalism. Financial globalization is also attended by the separation of monetary and fiscal policy, and by an emphasis on targeting inflation rather than combating unemployment. Keynesian cooperative capitalism has thus been displaced by an alliance between the rich and the (private) financial sector. The imperative of ever-rising asset prices in the presence of greater income inequality lays the groundwork for financial instability and the eventual rescue of the financial sector by the central money authority and the government. These dynamics intensify because the real economy continues to suffer as austerity further weakens the climate for private investment. In the end, publicly financed deficit spending provides the only way to resurrect the confidence of private investors and rescue the economy.

Wright Patman’s Proposal to Fund Government Debt at Zero Interest Rates: Lessons for the Current Debate on the US Debt Limit

JAN KREGEL
Policy Note 2014/2, February 2014

On February 7, 2014, the US Congress faced yet another contentious vote on the debt ceiling. Controversy is not new to debt ceiling debates, and they have once again become a partisan contest. In this policy note, Senior Scholar Jan Kregel reviews some of the arguments that have been advanced in past debates regarding the debt ceiling—arguments notably absent today.

Kregel observes that some of the most useful analyses of financing large debts have been made when the country was at war. Before 1917, Congress directly authorized increasing the
debt, but with the passage of the Second Liberty Bond Act that year, prior borrowing authorizations were consolidated and an upper limit set on overall debt issue. In 1943, a year after the entry of the United States into World War II, Congress faced unpredictably large wartime expenditures that exceeded the debt limit at the time. While few members of Congress argued that the debt limit should be used as a constraint on spending, the debate produced informed discussions of how to finance the debt. In particular, the contributions of US Representative Wright Patman (D-TX) hold a number of lessons for the current debate.

Representative Patman considered financing the debt under an arrangement whereby the US government would bypass the private financial system and place debt directly with the District Federal Reserve Banks and pay zero interest. Using private banks (the District Federal Reserve Banks are privately held banks after all) as intermediaries seemed illogical and inefficient to Patman as it meant the US government would pay private banks to use its own credit. Patman crafted a bill that would have placed non-negotiable US bonds directly with the Federal Reserve Banks and barred the Treasury from issuing interest-bearing obligations of the US government to private banks. This proposal would have eliminated the problem of market financing and ended the practice of paying interest to private banks, thus reducing the size of the accumulated national debt. Patman supported his arguments with both constitutional premises and expert testimony by his contemporaries at the Federal Reserve and Treasury.

Patman argued that the US Constitution assigns the government the power and the duty to create money. In effect, when the government “farms out” the use of its own credit free of charge, it provides a subsidy to the private banking system by paying banks to create what is the government’s own money. Patman argued that when government creates money it should not pay interest to use it. He proposed that the Treasury create a zero-interest bond to be distributed to Federal Reserve Banks and either exchanged for reserve credits at District Reserve Banks or converted to Federal Reserve notes and used to finance government expenditures. Under his proposal, the sale of government bonds to commercial banks would have been abolished.

As radical as this proposal seems, Kregel observes that it is strikingly similar to the Fed’s current zero interest rate policy (ZIRP). The proposal might be seen as a very early version of ZIRP and quantitative easing. Kregel recalls that some of Patman’s critics feared that the Fed would lose its ability to generate a positive interest rate in an environment of zero-interest government bonds and no open market operations.

The lessons Kregel draws from the discussion of Patman’s proposals are: (1) financing the debt is not the issue, and (2) the government can choose the rate at which to finance the debt without losing control of interest rates as a monetary policy tool with the aid of supplemental required reserves. The relevant question is whether the scale of deficit financing is consistent with the stable expansion of the economy (i.e., will the deficit spur inflation or increased output and employment?). The salient concern is whether or not the economy is near full employment. As there is currently very little danger of inflation in the United States, the size of the debt and deficit should not be at the center of the debt limit debate.

Senior Scholar L. Randall Wray and Xinhua Liu, Shaanxi Normal University, examine the fiscal and monetary policy options open to China within the context of a dollar standard world. The authors review the macroeconomic challenges facing China, including slowing rates of economic growth, as well as global and domestic imbalances. The authors argue that as a sovereign currency–issuing country operating in the context of a dollar standard world, China faces choices similar to those of the United States, the UK, and Japan—“affordability” is not the issue. China determines its overnight interest rate as a matter of policy. This does not depend on the internationalization of its sovereign currency, nor does it require China to liberalize capital flows. The main imbalance that China faces is domestic: local government budgets are too loose while central government budgets remain too tight. As the authors discuss, this last area is one that China may wish to address. They begin their analysis with a brief survey of the current economic conditions in China and provide an overview of fiscal and monetary policy
making. They then discuss the implications of fixed exchange rates and apply a sovereign currency approach as the foundation for their analysis of China’s policy options.

A sovereign currency approach stands in sharp contrast to mainstream economic theory. The authors note that the shortcomings of mainstream economic theory were made clear in the run-up and aftermath of the global financial crisis. Led by mainstream theory, policymakers in the West adopted positions described as “fiscal consolidation” and “growth through austerity.” The core argument of these economists was that lower budget deficits would lead to greater economic growth. Wray and Liu caution that the empirical basis for the “small government” argument proved to be flawed. One of the primary failures of the mainstream approach was in not recognizing the importance of a country’s currency regime. The options open to a sovereign currency–issuing country are very different from those available to a country that does not control its own currency.

Recently, there have been calls for China to reduce its relatively small central government deficit and to pursue a balanced-budget stance in order to ward off potential inflation pressures. Some have argued for China to balance its budget as an end in itself, while others have argued for tight fiscal policy as a means to counter exchange rate effects or to prevent crowding-out effects of public spending (a decidedly unlikely outcome in China today). The authors note that such arguments might serve a country that does not control its currency but are unsuited to a country like China. The central government’s debt and deficit ratios remain well below ratios that are common in the West. China, the authors argue, can afford to spend what is needed to keep the country on its desired development path—even if this means continued deficits. This is in no way a recommendation for China to engage in irresponsible deficit spending, which could lead to inflation or potentially affect the exchange rate. Rather, the authors note that China is not constrained by issues of affordability. Naturally, controlling inflation is a concern and requires vigilance. However, Wray and Liu suggest that China examine its local government and corporate debt levels in comparison to those of the central government.

Local government deficit spending has contributed to growth in China, as have corporate and household debt–financed spending. However, these forms of stimulus carry with them the potential for greater financial fragility. The authors argue that China should consider shifting spending from sectors that have limited fiscal capacity to the sovereign government, which has far greater fiscal latitude. They contend that, by gradually relaxing the central government’s fiscal stance and tightening local government and corporate budgets, China can avoid weakening growth and prevent excessive inflation.

Because China is not limited by “affordability” concerns to the same degree as countries that do not issue their own sovereign currency, its central government can always pay for its budget commitments. China’s main imbalance appears to be a result of loose local government budgets and overly tight central government budgets. The authors conclude that a gradual reversal of these positions should be considered as a strategy to complement China’s development objectives.

Financial Crisis Resolution and Federal Reserve Governance: Economic Thought and Political Realities
BERNARD SHULL
Working Paper No. 784, January 2014

Bernard Shull, Hunter College, CUNY, traces the evolution of Federal Reserve governance. The aim of the paper is to identify relevant issues in Fed governance and establish a basis for change if needed. Shull analyzes the governance mechanisms established in the Federal Reserve Act of 1913 and traces their evolution in the 1920s and 1930s. He also examines congressional efforts to expand oversight in the 1970s. He next reviews the policies implemented following the financial crisis of 2007–09 and the impact of the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010. He concludes with an evaluation of the trends in Fed governance and their implications.

Shull observes that Congress has created a number of independent agencies subject to government oversight but which are intended to operate with a high degree of autonomy from the political process. The Fed can be seen as such an agency, but with a greater degree of autonomy from the political process, including self-financing and the strongly held conviction that any monitoring of its core function (i.e., monetary
Modern Money Theory and Interrelations between the Treasury and the Central Bank: The Case of the United States

ÉRIC TYMOIGNE
Working Paper No. 788, March 2014

In this working paper, Research Associate Éric Tymoigne demonstrates that the insights of modern money theory (MMT) are clearly visible in the operations of the treasury and central bank in the United States. One of the principal contributions of MMT has been to explain why a monetarily sovereign government can pursue its goals without being constrained by hard financial limits. This paper illustrates many of the theoretical insights of MMT by showing the interconnectedness of the US Treasury and Federal Reserve. The author begins with a review of the early monetary history of the United States, focusing on the colonial era. This early period was characterized by a lack of self-imposed constraints and validates many of MMT’s insights. Tymoigne then examines the role of the Treasury in monetary policy. He also discusses how certain policy constraints have been bypassed in order to promote financial stability. He concludes with a discussion of funding costs and mechanisms of the Treasury.

The case of the Massachusetts Bay Colonies offers a less complicated view of the fiscal and monetary operations of a sovereign government. The American colonies had no central bank, no debt limit, and no primary market. Instead, the colonial government issued debt to the public in the form of bills of credit, with a promise to take back the debt in payment of taxes. The colonists quickly accepted the value of these bills.
and began to use them as currency at par value. Thus, the colonial government had an unlimited funding capacity. Taxes were not a funding mechanism; rather, tax liabilities were a way to create demand for the currency, validate the value of the bills, and drain bills from the economy. The colonial government found that the collection of taxes tended to drain more bills from the system compared to the needs of private economic units for such things as savings, daily expenses, and private debt settlement. This confirms MMT’s insight that the equilibrium fiscal position is determined by the level of net financial accumulation desired by the nongovernment sector. Government runs a deficit because the currency it issues is in demand for purposes other than paying taxes.

Turning to the operations of the US Treasury and the Federal Reserve today, Tymoigne notes that these institutions are far more constrained than the early colonial government. However, MMT shows how the self-imposed constraints in place today do not alter the fundamental purpose of taxes and bond offerings, and that can be circumvented. The author cites the operations of the Fed and the Treasury as evidence for his argument.

Tymoigne reviews the interactions of the Treasury and the Fed, focusing on the actions taken during the 2007–08 financial crisis. MMT shows that Treasury spending always leads to money creation (private bank accounts are credited), while taxation leads to monetary destruction (bank accounts are debited). The Treasury obtains the funds for taxation and bond purchases from the Federal Reserve (i.e., reserve injection by the Fed precedes taxes and bond offerings). Fundamentally, spending by government comes first, and is accomplished through monetary creation. The author goes on to provide examples of how the injection of reserves, which allow banks to purchase treasuries or make tax payments, relate to Treasury operations. He observes that taxes and bond offerings help to maintain the stability of the economic system but are not central to funding a monetarily sovereign government.

Some critics of MMT have argued that the theory lacks descriptive accuracy, but a closer examination of the real-world institutions shows that this is not the case. Further, while the institutional arrangements are relevant to political discussions, they do not alter the underlying causalities or their impact on economic variables (e.g., interest rates, exchange rates, balance sheets, and national income). The author observes that the financial operations of the treasury and the central bank are closely intertwined—that they are in practice constantly in contact to make fiscal and monetary policy run smoothly. It is difficult to see the central bank as independent as it is but one of the two sides of the government sector. The author concludes that MMT’s insights, such as those outlined above, have the potential to change many of the current policy debates. For example, if we consider that solvency is not an issue because the government can always pay its debts, then funding Social Security is more accurately seen as a demographic problem rather than a financial one.


Program: Gender Equality and the Economy

Integrating Time in Public Policy: Empirical Description of Gender-specific Outcomes and Budgeting
LEKHA S. CHAKRABORTY
Working Paper No. 785, January 2014

Budgeting processes often fail to anticipate or account for the gender-specific consequences of public expenditures, particularly in terms of the time and the value of production in the nonwage labor market. Research Associate Lekha S. Chakraborty examines the role of time as a critical element in the analysis of gender-specific outcomes of public expenditures. She reviews strategies for improving our understanding of the public budgeting process and how the gender-specific outcomes of public expenditures are measured.

Gender budgeting is an innovation that translates gender-specific policy goals into government budget commitments. It is not an approach that specifically targets programs or outcomes for women. Rather, it is a comprehensive approach for identifying budget outcomes in terms of gender impacts. Because budgets are crafted within a specific sociocultural context, they are not gender neutral. Some socially determined forms of economic activity may be emphasized, while other activities that are not part of the wage economy may be left out
of the budget process altogether. Gender budgeting seeks to correct this asymmetry by unpacking the social content of budgets and more closely aligning the budget process with development goals. Gender budgeting involves three components: an empirical description of gender-specific outcomes, an analysis of women’s contribution to the wage and nonwage economies, and an analysis of the gender specific outcomes of public spending.

Chakraborty observes that the expenditure of public funds often has unintended gender-equity outcomes. While efforts have been made to make these consequences visible, our ability to anticipate the consequences of fiscal policy choices remains crude and uneven at best. The author examines the use of time-use statistics as a means to identify gender-specific outcomes of policy choices. This approach overcomes the problem of “hard-to-price” goods and services, reveals a flawed analysis of the consequences of nonrival expenditures, and opens the way to a more equitable budgeting process.

The integration of time-use statistics in fiscal policy remains an elusive area of research. The requisite data are often incomplete or entirely absent. What we cannot measure, we cannot price, and therefore it is left out of the budget process. Time-use statistics for nonmonetized sectors of the economy represent a means to correct this flaw, particularly by providing labor force participation information for “invisible” activities. While including the gender-specific outcomes of budget choices has gradually achieved a degree of acceptance, it is hampered by a lack of ex ante and ex post information regarding budget policy choices.

Further, time-use statistics are not included in gender budgeting because time-use surveys are not conducted consistently, the process of gender budgeting is incomplete across countries, and the assumption that some public expenditures cannot be partitioned by gender hampers implementation. This third point is highly controversial. Chakraborty argues that public expenditures on such things as social and physical infrastructure have impacts that can be clearly differentiated by gender. For example, benefit incidence analysis (BIA) has clearly shown the distributional impacts of public spending by class and gender. Further, the author also discusses the uses of the Gender Development Index (GDI), a well-known measure for identifying gender-specific outcomes at a national level. She notes that the GDI remains incomplete in that it does not incorporate time data for nonmarket and unpaid work performed by women. For example, the United Nations Development Programme estimates women contribute $16 trillion in “invisible” (i.e., uncounted) economic output to the global economy.

The challenges in estimating unpaid work are manifold. Time-use diaries offer one way to systematically collect and code information about nonwage economic activity. However, the question of how to value unpaid work remains complicated. There are three common strategies for assigning a monetary value to unpaid work: universal minimum wage, specialized wage, or the opportunity-cost wage.

Gender budgeting methods face substantial implementation challenges but offer an important tool to better understand the socioeconomic impacts of budget choices. Chakraborty concludes that gender budgeting offers scholars and policymakers a useful lens through which to analyze the whole budget, and to align budget decisions with development goals.


Changes in Global Trade Patterns and Women’s Employment in Manufacturing: An Analysis over the Period of Asianization and Deindustrialization
BURÇA KIZILIRMAK, EMEL MEMİŞ, ŞİRİN SARAÇOĞLU, and EBRU VOYVODA

Development economists have long debated the implications of trade in manufactured goods between developed (North) and developing (South) countries. The initial research on North-South trade published in the 1980s indicated negligible employment effects. However, this debate has been revived as some recent research has indicated far greater employment impacts. The authors contribute to this debate with an analysis of the employment effects of changes in manufacturing output resulting from shifts in trade patterns in 21 OECD countries and 9 non-OECD countries over the period 1995–2006. They use factor analysis to assess trends in the embodied labor content of manufacturing output by decomposing the sources of these changes between trade with the North, South, and China. The study also covers changes in employment between and across sectors. Their results include the changing patterns in employment as a result of trade. For
all countries but two, trade with China has had a negative impact on total employment, especially for women. The decline in women’s share of employment appears to be the result of shifts between sectors, as female employment continues to be dependent on changes in traditional manufacturing sectors.

The rise of emerging economies has significantly altered global manufacturing and the structure of trade. The authors take up the question of whether the employment dynamics of North-South trade observed in earlier decades hold true in the 2000s. For example, is there variation among groups of countries or industries? What are the employment impacts for men and women? To answer these and other questions, the authors put aside an analysis of groups of countries in favor of a more detailed country-by-country approach and sector-level impacts. Their analysis of each of the 30 countries uses four trading partner groups (China, developed, developing, and other developing) and includes 23 manufacturing sectors.

The authors analyze changes in the structure of production and trade on total employment and gender differences in employment trends using structural decomposition analysis (SDA) and factor-content analysis of trade (FCA). The SDA method allows them to examine women’s share of employment by intersectoral shifts in production and employment patterns in manufacturing, and changes within sectors in total employment and female employment demand. The authors configure their analysis in terms of factors that are likely to affect shifts from one sector to another, such as differing levels of export orientation, stage of development, and specialization within the global division of labor. Their analysis of the trends in total and female employment applies FCA methods, which allow them to assess the employment impacts of trade over time.

The SDA results reveal that manufacturing restructuring has had a negative impact on women’s employment over time. These effects can be traced to the strong influence of traditional sectors (e.g., manufacturing). The FCA results show a net negative impact on trade over the period. Of the 30 countries analyzed, 17 countries had positive employment outcomes and 13 show negative outcomes. The authors find that in all countries except the Republic of Korea and the Philippines, increasing trade with China resulted in employment losses. At the level of industry sectors, an observed loss of jobs in one sector resulting from transformation portends a probable loss of jobs in other sectors (i.e., all sectors gain or lose jobs together). The authors observe that women’s employment patterns generally track general employment trends. They also find that in the North, total employment and women’s employment would have been approximately 4 percent higher if the trade structure had not changed. The United States had by far the greatest employment losses as a result of changes in the structure of trade. The authors find that 81 percent of the total employment loss in the North is borne by the US. Their analysis also reveals that in the North, female employment shifted toward traditionally male-dominated industries during the 2000s—the same sectors that recorded marked increases in female employment in the South during the same period. This occurred in sectors where internationalization of production is more widespread and global competition is more intense. The authors conclude that the process of “deindustrialization” that started in the North in the 1980s continued into the 2000s.

Program: Employment Policy and Labor Markets

The Social Enterprise Model for a Job Guarantee in the United States
PAVLINA R. TCHERNEVA
Policy Note 2014/1, January 2014

In this policy note, Research Associate Pavlina R. Tcherneva presents her arguments for the implementation of a job guarantee program for the United States. Unlike mainstream stimulus policies, says Tcherneva, a job guarantee for all who are willing and able to work addresses unemployment directly, leading to greater productivity, economic stability, and prosperity. She recasts the implementation of a job guarantee using the nonprofit and social enterprise sectors to implement a federally funded, locally administered job guarantee. This policy note lays out her proposal and anticipates some of the questions that are often raised in response to employer-of-last-resort programs.

Despite what many economists claim, markets do not create full employment. Many economists and policymakers have come to accept unemployment as a persistent, if unfortunate,
economic reality. The proof of this acceptance can be found in such measures as the nonaccelerating inflation rate of unemployment, or NAIRU (currently pegged at 6.7 percent), which effectively enshrines the idea that some part of the population will be unemployed. Today, the total number of people in the United States who are officially unemployed or in hidden unemployment stands at just over 24 million. This loss of human and economic potential is unacceptable, and the signature of failed investment-led solutions. Tcherneva proposes a federally funded, locally administered program.

Her proposed job guarantee will work as part of the social safety net, not as a replacement for unemployment insurance or other existing social welfare supports. Nor is the program at odds with private sector employment; rather, it provides a buffer stock of labor that is at once complementary to and independent of the private sector’s demand for labor. A critical difference in Tcherneva’s proposal is that the jobs would be created by social enterprise ventures (SEVs) and traditional nonprofits that would design, manage, and run individual projects.

The author argues that SEVs and nonprofits produce innovative and sustainable solutions to problems that the private sector has failed to address. SEVs place the creation of social value at the core of their mission and address problems that include homelessness, environmental degradation, community blight, and the like. She argues that these organizations are better suited to the task of job creation than the private sector and the outdated policies and programs of the federal government. She outlines some of the key characteristics of the social enterprise sector that make it uniquely suited to the task of implementing a job guarantee. Among these characteristics, SEVs have a high degree of autonomy; they are citizen and community based, and participatory in nature; decision making is not based on capital ownership or on any profit-maximizing principle; and creating benefits for communities is a core element of their mission.

Under the author’s proposal, the job guarantee would become a sustainable solution to the problem of unemployment. To accomplish this task, policy can do three things. First, it must connect the goals of the social sector to the goal of job creation. The next step would be to expand existing successful models, which can then be transferred to issues and areas where nonprofits and SEVs are not currently operating. Tcherneva notes that much of the social enterprise sector’s work is, by its very nature, countercyclical, which is one more argument for using it as a vehicle to implement the job guarantee.

Unlike many employment strategies, a job guarantee program would fit the job to the worker rather than trying to reshape work skills to make him or her more “marketable.” One approach would be to allow communities, SEVs, nonprofits, and the unemployed themselves to propose projects. This would foster a genuinely bottom-up policy while serving public purposes and addressing important social goals. Finally, funding for the job guarantee would come from the federal government, but it need not bear 100 percent of the program’s costs. Many SEVs and nonprofits have resources in place that the federal government can augment. Cooperative funding, Tcherneva concludes, is one way to foster a public-private partnership and cement the social contract.

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Unions and Economic Performance in Developing Countries: Case Studies from Latin America

FERNANDO RIOS-AVILA
Working Paper No. 787, January 2014

Research Scholar Fernando Rios-Avila offers a contribution to the literature on the dynamic between unions and establishment productivity in Latin America. His study employs survey data on Argentina, Bolivia, Chile, Mexico, Panama, and Uruguay, and includes a review of the literature, an overview of the institutional context of unions in each of the countries analyzed, estimates based on an augmented Cobb-Douglas function of the union-productivity effect, and an analysis of the relationship between unions and firm profitability. His findings indicate a positive but often weak relationship between the presence of unions and productivity in most cases, and a negative relationship between the presence of unions and capital investment and R&D.

Rios-Avila begins with a review of the theoretical literature on the relationship between unions and firm productivity and performance. He draws upon the “two faces” approach in the literature, whereby unions’ effects on productivity are described in terms of a monopoly face, which draws on microeconomic theory, and the collective voice/institutional framework approach to unions, which draws on the industrial
organization literature. The first approach views unions as monopolistic agents and stresses the negative effects of unions and the distortions they create relative to the perfect competition model. This approach anticipates higher compensation for union members and negative productivity effects. These distortions can also cause firms to reduce their investments. The collective voice / institutional framework approach emphasizes the positive aspects of unions. Unions can, for example, foster more open communication with management, production improvements, reduce “X-inefficiencies,” and promote more efficient personnel policies. The author observes that the empirical evidence on the relationship between unions and productivity in developed countries is mixed, and that the research on unions and productivity in developing countries is limited and inconclusive.

The author next turns to a brief survey of the history of union formation in Latin America, for which there is a substantial literature. He discusses some of the key features in the development of unions and the legal framework in Argentina, Bolivia, Chile, Mexico, Panama, and Uruguay. Unions in Latin and South America are frequently described as playing a prominent role in politics, both as supporters and opponents of governments. The economic and political history of unions is one of alliances and government influence, and the legal history varies widely across the region. In step with global trends, unionization rates have fallen in recent years. Bargaining systems vary by country, as does the role of governments in the formation, determination of bargaining rights, and operation of unions. Against this backdrop, Rios-Avila presents his empirical analysis, concentrating on the manufacturing sector, using the World Bank’s Enterprise Survey data.

The author estimates the effects of unions on productivity using a variant of the Cobb-Douglas production function that distinguishes between union and nonunion workers. The results show that for most countries in the sample unions have a positive but weak correlation with productivity. The main exception to this result is Argentina, where unions have negative and significant effects on productivity, and Bolivia, where no effect is detected. The author next conducts a sensitivity analysis of the basic model that includes such variables as the level of competition, capacity utilization, hours of operation, establishment characteristics, and management quality.

Finally, the author examines the relationship between unions and profitability and investment. His results show that unions have a negative effect on all aspects of investment, and, when the effect is positive, the relationship is not significant. However, Mexico and Panama are exceptions to these findings. Overall, the productivity gains identified above appear to be sufficient to offset higher labor costs, which result in small and insignificant profitability estimates. In addition, unions appear to have a negative or null effect on current investment decisions. Given the limited nature of the data and literature on the effects of unions in developing countries, this analysis opens the way to future research on the effects and channels of unions on establishment (i.e., firm) performance.


Full Employment: The Road Not Taken

PAVLINA R. TCHERNEVA

Today, mainstream economics teaches us that true full employment is neither desirable nor possible. Full employment, the argument goes, would drive up inflation. Thus, some level of unemployment is an unavoidable, even natural, feature of an economy. Many economists and policymakers have come to accept some level of unemployment—as represented, for example, by the nonaccelerating inflation rate of unemployment (NAIRU)—as unavoidable. Likewise, stimulus policies to combat recession and unemployment are often described as “Keynesian.” Yet, these policies bear little resemblance to what John Maynard Keynes himself recommended to create full employment and sustain it over the long run.

In this working paper, Research Associate Pavlina R. Tcherneva surveys Keynes’s full employment proposal, and those of his elaborators. She provides a road map for implementing fiscal policy to support full employment that is faithful to Keynes’s work. The paper also includes examples of employer-of-last-resort (ELR) programs implemented outside the United States.

Keynes explained that, as a monetary phenomenon, unemployment exists in an expanding or contracting economy. Even in prosperous times, there will be able-bodied people out of work, either because business conditions do not guarantee
future increases in demand or because the unemployed do not meet employers’ preferences in some way. Thus, the private sector cannot be counted on to guarantee full employment even when the economy is strong.

“Priming the pump” is a rubric for a variety of “Keynesian” economic stimulus solutions (i.e., during a recession or depression, government spends more when the private sector spends less, thus increasing aggregate demand). Tcherneva rejects the pump-priming version of Keynesian policy, which she argues owes more to the neoclassical synthesis and New Economic Consensus than it does to Keynes.

Mainstream stimulus policies favor additional government spending but, unlike Keynes, say very little about the nature of this additional spending. Keynes was clear that the manner of government spending was vitally important, and that a direct employment approach was by far the best alternative. His recommendation of this approach was grounded in theoretical, methodological, and policy arguments. He argued that policies must ensure that effective demand (not aggregate demand or GDP) is maintained at a level that is consistent with full employment, and cautioned that even a booming economy can experience a lack of effective demand. Thus, securing a livelihood for all who are unemployed must be the goal of economic policy. Keynes concluded that because government cannot guarantee the expectations of the private sector and therefore ensure full employment through private sector employment, it falls to the public sector to provide work opportunities for those left behind. Levy Institute Distinguished Scholar Hyman Minsky extended Keynes’s approach with his ELR proposal.

Minsky’s approach would counter both inflation and deflation by scaling the program countercyclically. Minsky allowed that inflation from other sources would still be possible, but that the ELR program itself would not be one of them. Further, an ELR program would not contribute to income inequality the way that conventional pump-priming programs do today. For example, pump-priming stimulus policies that target growth and investment tend to benefit relatively high-skill, high-wage workers but offer fewer opportunities to workers at the lower end of the income scale. This is because the mainstream pump-priming approach targets growth and treats employment as a byproduct instead of as the primary goal of the policy.

Tcherneva draws lessons from ELR programs that have been implemented in a variety of national contexts. Argentina’s Plan Jefes y Jefas was implemented as a crisis resolution measure in 2001. South Africa launched its Expanded Public Works Programme in 2004 and expanded it in 2009. While many developing nations have implemented on-the-spot employment programs, Tcherneva suggests that developed countries could use direct job creation in tandem with the social entrepreneurial sector to provide employment that serves a social purpose. The author concludes that Keynes provided a clear argument for full employment, and a number of countries have demonstrated the efficacy of this approach. It remains for policymakers to act.


Program: Economic Policy for the 21st Century

Explorations in Theory and Empirical Analysis

A Stock-flow Approach to a General Theory of Pricing

PHILIP PILKINGTON
Working Paper No. 781, December 2013

Philip Pilkington, Kingston University, presents a foundation for a general theory of pricing based on a stock-flow approach. The author argues that contemporary, marginalist economic theory frequently relies on the assumption that prices correspond to the value consumers place on goods and services, and fail to take into account the role of expectations or how goods are often also assets. In addition, contemporary theories of asset markets either rely on a market equilibrium framework or no discernable framework at all. Pilkington takes up these issues as context for a stock-flow equilibrium framework and develops a general theory of pricing that can be applied to any market, financial or real, and does not rely on a prespecified market equilibrium. The author provides a review of the theoretical and empirical literature on the financial markets (emphasizing the run-up in oil prices from 2003), discusses the structure of market equilibrium, and presents a stock flow approach to a general theory of prices.
The mainstream theoretical literature rests largely on the efficient markets hypothesis (EMH). Pilkington reviews versions of the EMH, including “noise trader” models. He notes that active traders in asset markets have sought to integrate the lessons of behavioral finance into their textbooks but have also rejected the EMH. This divergence between market theory and market behavior has been taken up by a great many economists, including Nicholas Kaldor, Michał Kalecki, and John Maynard Keynes.

Pilkington next explores financial asset pricing, with a review of the empirical literature on oil markets from 2000 onward. He focuses on the question of whether or not speculation in futures contracts drove the spot price of oil. Many economists, including a number of Post Keynesians, argue that in a world of true uncertainty where probabilistic risk is an unreliable guide to understanding market outcomes, market processes themselves play a role in shaping prices. The author notes that this conclusion is clearly at odds with the EMH.

Pilkington next examines the concept of market equilibrium in detail, observing that the idea of market equilibrium is a common feature of introductory economics textbooks but conspicuously absent thereafter. He examines the early economics literature, the role attributed to expectations, and teleological versus presentational models of market equilibrium in financial markets, and then develops a Post Keynesian non-market equilibrium structure as the groundwork for his stock-flow approach to a general theory of prices.

The author’s goal is to develop a nonteleological, stock-flow equilibrium theory of asset prices, in particular, and for prices in the broadest sense. He divides all goods in a capitalist economy into three groups: pure assets (e.g., publicly traded shares), impure assets that are both assets and consumer goods (e.g., a house), and pure consumer goods (e.g., a haircut). Using a standard definition of asset prices drawn from the System of National Accounts, Pilkington develops a framework using national accounting identities, specifying demand-side variables followed by supply-side variables. He begins by defining identities for pure assets before moving on to the financial aspects of impure assets. In order to derive a theory that can fully integrate impure assets and pure consumer goods, he introduces what he defines as a “fundamental demand component”—that is, the amount of demand that is not subject to financial considerations, such as appreciation.

Pilkington argues that some markets contain a mixture of fundamental demand and pure financial demand. These tend to be markets for things that have a resale value, such as housing, rather than pure consumer goods, which have only fundamental market demand. The author next develops the idea of a “paradox of speculative profits.” He finds that markets tend to undershoot the average price increase investors expect. This insight helps to explain why investors’ expectations often overestimate expected market gains or losses. This paradox also shows that, in any given aggregate market, investors’ profit margins will fall short of what Pilkington describes as their expected barrier profit margins. Pilkington notes that his theory of prices provides fresh support for a Keynesian approach to macroeconomics that does not rely on sticky wages and prices. Finally, the disaggregation of prices into their speculative and fundamental components demonstrates how speculative investment could drive prices up and result in markets failing to clear.

Feasible Estimation of Linear Models with N-fixed Effects

FERNANDO RIOS-AVILA

Working Paper No. 782, December 2013

Research Scholar Fernando Rios-Avila presents a strategy for the estimation of high-order linear fixed-effects models. His approach reduces the computational burden of such estimation procedures, rendering this class of models more accessible to researchers. His strategy relies on the transformation of data prior to calculating estimates for the model. While this approach is computationally intensive, it does not require exceptionally powerful computer hardware by current standards. The author’s strategy allows researchers to estimate models with more than two high-order fixed effects for very large datasets. This paper provides a detailed explanation of his estimation strategy and an example of its application using the US Census Bureau Current Population Survey with four fixed effects. It contributes a viable strategy for estimating high-order fixed effects and presents an implementation of this strategy using a widely adopted statistical software package (Stata).

The size and availability of large longitudinal datasets has increased in recent years. Likewise, the interest in research
methods and models incorporating large datasets has also grown, particularly for models that incorporate one or more fixed effects. Fixed effects offer researchers the ability to control, using dummy variables, for unobserved heterogeneity shared across groups. The ability to control for such effects, and strategies that reduce the computational burden of applying such models, are thus relevant to the work of researchers in fields such as economics, sociology, and political science. For example, fixed-effects models are frequently used in research on firms and workers, and on schools, teachers, and students. When the number of groups within a defined category is large (e.g., students sorted by demographic groups), the implementation of fixed-effects models using dummy variables can be complicated by hardware and software constraints—specifically, memory constraints resulting from the estimation of large matrices of parameters. Despite advances in hardware and software, the task of estimating models with more than one high-order fixed effect for large datasets remains a challenge.

Rios-Avila begins his paper with a review of the recent literature on the development and implementation of estimation strategies. Despite advances in the field, he finds that data analyses with more than two fixed effects remain relatively uncommon. While the author draws on the current literature, his approach relies on different theoretical foundations and applies a more intuitive strategy. He begins by demonstrating the estimations of an employee-employer model with one fixed effect. He then extends the model to allow for two fixed effects, and, finally, $N$ fixed effects.

Rios-Avila estimates his model directly, without estimating the actual individual fixed effect, by subtracting the within-person mean from all the variables in the model, thus de-meaning the data. The resulting equations can be estimated using ordinary least squares procedures. The author discusses the correction of the variance-covariance matrix before presenting an $N$-fixed-effects model. His discussion focuses on developing a specification of model that allows for the unbiased estimation of beta coefficients after accounting for all fixed effects. He demonstrates that even after transforming the variables, the error term remains unchanged and can be used to estimate the variance-covariance matrix.

Next, the author presents an implementation of the proposed algorithm using the US Census Community Population Survey using monthly survey data from 2007 and 2008. The implementation relies on an Intel Xeon 1.8 gigahertz processor and eight gigabytes of random access memory. The model demonstrates the estimation of a linear model using four fixed effects. The algorithm requires 62 iterations before achieving convergence using double precision, though the parameter estimates are very close to their final values after just 10 iterations. The total processing time for the model is one minute and 10 seconds. The author notes that processing time could increase geometrically for larger datasets and more complex specifications. His implementation successfully demonstrates the estimation of a linear model using multiple fixed effects.


The Rational Expectations Hypothesis: An Assessment from Popper’s Philosophy

IVÁN H. AYALA and ALFONSO PALACIO-VERA

Working Paper No. 786, January 2014

Iván H. Ayala and Alfonso Palacio-Vera, Universidad de Complutense de Madrid, examine a standard element of expectations formation in mainstream economics—the rational expectations hypothesis (REH)—in light of Karl Popper’s philosophy. Specifically, they contrast Popper’s evolutionary theory of learning and knowledge, and, subsequently, his rationality principle, with the REH. They begin with an overview of his thought followed by a brief exposition of the REH. They then turn to an assessment of the REH through the lens of Popper’s Darwinian evolutionary epistemology and his methodological proposition for the social sciences known as “situational analysis.” The authors argue that Popper’s theory of knowledge and learning in combination with his situational analysis proposal provides a viable metatheoretical framework for the evaluation of the REH. However, the REH contains inherent methodological biases that imply that macroeconomic instability is random and exogenous in nature. This precludes any analysis of instability that is inherent and nonrandom, which renders this approach ill suited to analyzing economic instability.

The REH continues to be the standard approach to expectations formation in mainstream macroeconomics. According to the REH, economic agents perceive the economy accurately, and thus their expectations are, on average, unbiased. While the REH is widely adopted as a useful methodological device, the
authors find that its epistemological basis remains uncertain. They review the contributions of David Hume before proceeding to a detailed analysis of Popper’s work.

Ayala and Palacio-Vera find that the REH is largely incompatible with Popper’s theory of knowledge and learning on a number of significant points. First, Popper saw all knowledge as conjectural in nature and thus fallible. Second, he viewed knowledge and learning as imperfectly adapted to their environment. Third, the REH is at odds with Popper’s principle of indeterminism in his theory of knowledge and learning. However, the authors allow that the REH can be viewed as a heuristic device that facilitates certain aspects of modeling.

In this regard, the authors find that Popper’s rationality principle serves to salvage aspects of the REH. Indeed, arguments that have been offered on behalf of the rationality principle can likewise serve to justify the adoption of the theory. This does not, however, reconcile the REH with Popper’s epistemology. Rather, it demonstrates an apparent consistency between the REH and Popper’s rationality principle. This apparent compatibility may be due to an inconsistency in Popper’s philosophy or the result of a weakness within the REH itself. Putting aside these questions, the authors conclude that Popper’s philosophy, with its attendant notions of imperfect adaptation, indeterminism, and situational analysis, serves as a useful metatheoretical framework for evaluating the REH. In particular, the REH can productively contribute to the construction of better models by reducing their reliance on arbitrary elements, and by facilitating greater mathematical tractability in models. However, these advantages come at the expense of realism in macroeconomic models, since the REH ignores how economic agents acquire knowledge and does not take into account endogenous forces that can create growth or instability. These endogenous phenomena stem from mistakes made by economic agents who make decisions in an environment of uncertainty. The authors conclude that the REH, when viewed from the perspective of Popper’s philosophy, brings with it a number of severe methodological biases.

The REH assumes that macroeconomic instability results solely from exogenous shocks that randomly affect the economy. It excludes any analysis that treats macroeconomic instability as the result of agents or forces endogenous to the system. Further, the authors observe that the REH, by implying the existence of an “optimal” policy, favors institutional frameworks that may be unprepared to deal with macroeconomic instability that is inherent, such as the fundamental sources of economic instability identified by the late Levy Institute Distinguished Scholar Hyman Minsky.

www.levyinstitute.org/pubs/wp_786.pdf

Institute News

MS Program Welcomes Graduate Students

In the fall of 2014 the Levy Economics Institute Master of Science in Economic Theory and Policy will welcome its first class, a select and highly talented group of students with an impressive undergraduate academic and research record. Students will start off with core courses in advanced macro- and microeconomics, research methods, and econometrics to equip them with the necessary tools to succeed in specializing in one of the Levy Institute’s five main areas of research. Second-year students will join Levy researchers in a research practicum, working on active projects while taking courses to develop their theoretical knowledge in their specialization, leading to the completion of a capstone master’s thesis.

For more information on the Levy Economics Institute Master of Science in Economic Theory and Policy, visit the program website at www.bard.edu/levyms or e-mail levyms@levy.org.

New Research Associate

The Levy Institute is pleased to welcome Emel Memiş as a research associate in the Gender Equality and the Economy program. A professor of economics at Ankara University, Memiş specializes in macroeconomics, gender and economic development, and feminist economics. She is a member of the University’s Women’s Studies Center and an instructor in the Gender Studies program, designing lectures on women’s labor. Memiş joined the Levy Institute in 2007, and has recently taken part in a research project on unpaid work,

Memiş holds B.S. and M.Sc. degrees in economics from the Middle East Technical University in Turkey and received her Ph.D. in economics from the University of Utah.

Upcoming Events

23rd Annual Hyman P. Minsky Conference
Stabilizing Financial Systems for Growth and Full Employment
The National Press Club, Washington, D.C.
April 9–10, 2014

A conference organized by the Levy Economics Institute of Bard College with support from the Ford Foundation

Nearly five years after the worst financial and economic crisis since the Great Depression, the US economic recovery remains anemic, with low job growth and a high level of underemployment. The financial sector, however, has more than rebounded, posting record profits and leading analysts to warn that Wall Street may be headed for a major correction. Meanwhile, the 2010 Dodd-Frank financial reform bill, which has yet to be fully implemented, lacks the teeth to prevent another crisis from happening.

In response to this uncertain economic climate, this year’s Minsky Conference will address both financial reform and prosperity, drawing on Minsky’s work on financial instability and his proposal for achieving full employment. Panels will focus on the design of a new, more robust, and stable financial architecture; fiscal austerity and the sustainability of the US and European economic recovery; central bank independence and financial reform; the larger implications of the eurozone debt crisis for the global economic system; the impact of the return to more traditional US monetary policy on emerging markets; improving governance of the social safety net; the institutional shape of the future financial system; strategies for promoting an inclusive economy and more equitable income distribution; and regulatory challenges for emerging-market economies.

Scheduled speakers include Federal Reserve Board Governor Daniel K. Tarullo; US Senator Sherrod Brown (D-Ohio); Jason Furman, chairman of the President’s Council of Economic Advisers; Willem H. Buiter, global chief economist, Citi; Mercedes Marcó del Pont, former president, Central Bank of Argentina; Vítor Constâncio, vice president, European Central Bank; Charles L. Evans, president and CEO, Federal Reserve Bank of Chicago; US Representative Carolyn B. Maloney (D–New York); Denis MacShane, former UK minister for Europe; and Andrew Sheng, president, Fung Global Institute.

For more information, including the events program and participants list, visit our website, www.levyinstitute.org.

The Hyman P. Minsky Summer Seminar
Blithewood, Annandale-on-Hudson, N.Y.
June 13–21, 2014

The Levy Institute’s fifth annual Hyman P. Minsky Summer Seminar, to be held on the Bard College campus in June 2014. The 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 our website. (Registration is now closed.)
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RANIA ANTONOPOULOS Senior Scholar and Program Director


JAMES K. GALBRATH Senior Scholar


TAMAR KHITARISHVILI Research Scholar


KIJONG KIM Research Scholar

THOMAS MASTERSON Research Scholar and Director of Applied Micromodeling


EMEL MEMİŞ Research Associate

DIMITRI B. PAPADIMITRIOU President


**AJIT ZACHARIAS**  
Senior Scholar and Program Director  


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