



# Summary

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## LETTER FROM THE DIRECTOR OF RESEARCH

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### To our readers:

This issue opens with a public policy brief by Senior Scholar Fernando Cardim de Carvalho under the State of the US and World Economies program. Since inheriting the Brazilian presidency five months ago, the new Temer administration has successfully ratified a constitutional amendment imposing a radical, two-decades-long public spending freeze, purportedly aimed at sparking an increase in business confidence and investment. Cardim de Carvalho explains why this fiscal strategy is based on a flawed conception of the drivers of private-sector confidence and investment as well as a mistaken view of the roots of the current Brazilian economic crisis.

Four working papers are included under the Monetary Policy and Financial Structure program. Tanweer Akram and Anupam Das investigate the long-run determinants of nominal yields of government bonds in India in order to better understand the impact a government's fiscal stance can have on its bond yields. Alberto Botta presents a simple theoretical model to expose the mechanisms of expansionary austerity theory as fragile and contingent on the state and its institutions. Flavia Dantas argues that the urgency and rationale behind the Federal Reserve's announced policy of "normalization" through a gradual increase in the federal funds rate is neither theoretically sound nor empirically justified. And I revisit David Ricardo's 1861 *Proposals for an Economical and Secure Currency* in the context of examining money's role in the modern economy. In light of recent proposals for restructuring the monetary system—ranging from a return to the gold standard to the wholesale abolition of currency—Ricardo's "ingot plan" may provide insight into their applicability to current conditions.

In the first of two working papers under The Distribution of Income and Wealth program, Research Scholars Thomas Masterson and Fernando Rios-Avila, Senior Scholar Ajit Zacharias, and Research Associate Edward N. Wolff examine the effects of the Great Recession on the economic well-being of different racial groups in the United States. Using two different measures of material well-being—gross money income and the Levy Institute Measure of Economic Well-Being (LIMEW)—they find that despite the overall decline in labor force participation and homeownership rates, changes in base

income, taxes, and income other than from homeownership resulted in declines in overall inequality, while only taxes narrowed the LIMEW equality gap between white and nonwhite households. Research Scholar Michalis Nikiforos discusses why abstractions are necessary for making sense of complex economic and social realities, and applies Lawson's criteria for what constitutes an appropriate degree of abstraction when modeling growth and distribution to recent "endogeneity" critiques of the Kaleckian model.

Under the Gender Equality and the Economy program, a working paper by Research Scholar Kijong Kim, Research Associate İpek İlkkaracan, and Tolga Kaya analyzes the economic impacts of expanding the social care sector in Turkey. Focusing on an expansion of early childhood care and preschool education (ECCPE) versus a similar expansion in the construction sector, the authors conclude that investment in ECCPE is superior with respect to fiscal sustainability and its narrowing of the gender pay gap.

In a policy brief under the Employment Policy and Labor Markets program, Flavia Dantas and Senior Scholar L. Randall Wray argue that the current unemployment rate provides an inaccurate picture of the health of the labor market, and that the common narrative attributing shrinking labor force engagement to aging demographics is overstated. Instead, falling prime-age participation rates are the symptom of a structural inadequacy of aggregate demand—a long-running problem of insufficient job creation and stagnant incomes that conventional public policy remedies have been unable to address. The solution: targeted, direct job creation for those at the bottom of the income scale.

As always, we look forward to your comments.

Jan Kregel, *Director of Research*

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

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### **Brazil Still in Troubled Waters**

FERNANDO J. CARDIM DE CARVALHO

Public Policy Brief No. 143, February 2017

On August 31, 2016, Brazilian president Dilma Rousseff was impeached in the midst of a corruption scandal, leaving her successor, former vice president Michel Temer, in charge for the remainder of their term (until 2018). Facing an ongoing economic crisis, and despite a politically tenuous position, the Temer administration enacted an ambitious program of fiscal discipline in the form of a two-decades-long public spending freeze secured by constitutional amendment. The policy strategy is purportedly aimed at creating positive confidence effects in the private sector in order to reverse the recession in effect since 2015. In this policy brief, Senior Scholar Fernando J. Cardim de Carvalho explains why this fiscal strategy is based on a misreading of how the current economic crisis emerged, as well as a misunderstanding of the concept of investor confidence.

The constitutional amendment initiated by the Temer administration, which has now been ratified, freezes real federal expenditures at their 2016 level for the next 20 years. In the case of health and education, the constitution was amended so that minimum spending in these areas will be frozen at their 2017 levels. Cardim de Carvalho allows that while the constitutional amendment was politically savvy—since the government has been able to claim that no specific expenditure item has been limited, and that the establishment of public priorities is therefore still permitted—the policy effects the government is hoping for are not rooted in sound theory.

As Cardim de Carvalho observes, since fiscal deficits and poor governance were regarded by Rousseff’s critics as playing key roles in creating the economic downturn, fiscal discipline and improved governance should, in this view, reverse

the crisis. The spending freeze and the removal of Rousseff, according to the Temer administration, should send a strong signal that will increase confidence among consumers and businesspeople. These confidence effects, particularly by boosting investment, will more than counteract any negative impacts on GDP growth due to austerity. In other words, the administration is attempting to generate an “expansionary fiscal consolidation,” as the author explains.

However, with the help of John Maynard Keynes’s articulation of the concept, Cardim de Carvalho argues that the idea of “confidence” that underlies this fiscal strategy is underspecified and misguided. As there are no policy changes or trends evident in the private sector that are likely to lead to increased sales and profits—the actual experience of which are, as Cardim de Carvalho emphasizes, what feeds positive short-term expectations—there is little reason to expect the significant investment increases upon which the government’s strategy depends. If anything, the author argues, negative expectations are likely to prevail in the near term.

As for the idea that the change in political leadership and perception of improved governance will be able to support a rise in consumer and business confidence, Cardim de Carvalho points out that the corruption scandal that led to Rousseff’s ouster is by no means over. The current president—who, along with his advisers, is himself implicated in the scandal—may not last until the next election in 2018, the author suggests. The ongoing political fragility, and whatever uncertainty this might engender among investors, is likely to continue.

Cardim de Carvalho then outlines the sources of the current economic crisis, rejecting the view that the recession that began in 2015 can be traced to out-of-control fiscal policy. Far from it: as he argues, a stagnating economy—featuring a declining manufacturing sector beset by competitiveness pressures—became a full-blown recession in 2015 due in part to a turn to austerity, which fell largely on high-multiplier public investment. In the early 2010s, by contrast, fiscal policy was oriented toward supply policies, directing financial and fiscal subsidies to domestic firms in an attempt to compensate for competitive disadvantages. However, in addition to raising public suspicion of corruption—giving the appearance of favoring specific firms—Cardim de Carvalho notes that these policies failed to support growth. Similarly, Rousseff’s expansion of government spending in 2013 and 2014 took the form

of low-multiplier credit and tax subsidies to private businesses, which explains, Cardim de Carvalho comments, why such spending had so little effect in 2013–14 while the (high-multiplier) public investment cuts had such a strong impact in 2015.

Looking ahead, he cautions that the current “Ponzi” financing conditions that characterize many firms (struggling not only to roll over existing debts but also to capitalize unpaid interest costs) make a crash more likely than a recovery. According to Cardim de Carvalho, restoring public investment would be the most effective way to reverse the crisis, but ongoing political instability, he concludes, makes it unlikely such a policy will be implemented.

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## Program: Monetary Policy and Financial Structure

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### The Long-run Determinants of Indian Government Bond Yields

TANWEER AKRAM and ANUPAM DAS  
Working Paper No. 881, January 2017

In order to understand the impact a government’s fiscal stance can have on its bond yields, Tanweer Akram, Thrivent Financial, and Anupam Das, Mount Royal University, investigate the long-run determinants of the nominal yields of government bonds in India.

In contrast to the conventional view that government debt and deficit levels have the most significant effect on government bond yields in the long run, the authors look at the issue from a Keynesian perspective, in which monetary policy and liquidity preference are the drivers of long-term interest rates. In Keynes’s view, investors resort to their knowledge of the present and the past to form their expectations about an uncertain future, and these expectations are often influenced by human psychology, social conventions, and herd mentality. The authors assert that these factors, which are known to affect short-term interest rates, also shape long-term interest rates. Citing their previous work (Working Paper No. 834, “Does Keynesian Theory Explain Indian Government Bond Yields?”),

which finds the Keynesian assumptions holding true for the short term, they extend their investigation to see if the results hold in the long run.

As a sovereign issuer of currency, India’s central bank has a wide range of monetary policy tools at its disposal; consequently, it can exercise considerable influence over the country’s financial system by setting short-term interest rates, which affect nominal yields of government bonds. To gain an understanding of what drives government bond yields in India and other emerging markets in order to better determine the appropriate government finance and macroeconomic policy mix, Akram and Das build a simple two-period model that uses current rates of interest, inflation, and growth to estimate expected rates for future periods. Contrary to the classical view, where Lucasian assumptions of perfect foresight hold (i.e., expected rates in period 2 are equal to actual rates in period 2), the authors find that the expected rates of interest, inflation, and growth in period 2 are based on the actual rates from period 1, confirming the Keynesian notion that investors use their knowledge of present conditions to form their predictions about the future.

To further analyze these results, Akram and Das build a model using time-series data on the nominal yields of long-term Indian government bonds, short-term interest rates, the rate of inflation, the growth in industrial production, and a government finance variable (defined as the ratio of government debt to nominal GDP). After accounting for unit roots using augmented Dickey–Fuller and Phillips–Perron tests, they estimate the long-run cointegrating relationships using the autoregressive distributive lag technique to evaluate the long-run relationships between long-term government bond yields and short-term interest rates. Their analysis confirms the presence of long-run relationships among long-term government bond yields, short-term interest rates, the inflation rate, and the growth in industrial production, suggesting that over the long run, short-term interest rates strongly influence the long-term yield of government bonds in India. Contrary to conventional wisdom, which assumes that a higher debt ratio tends to reduce the nominal yields of government bonds, they find no adverse influence from the government finance variable. The authors note that these findings are consistent with other studies that have used different econometric and statistical models, and therefore the empirical results support the Keynesian assumptions.

Akram and Das suggest that their findings be applied to ongoing debates on monetary and fiscal policy coordination, the sustainability of government debt, and macroeconomic and monetary theory, recommending the extension of this research by applying a broad spectrum of econometric methods to determine whether their findings can apply to both advanced and developing economies.

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### **The Short- and Long-run Inconsistency of the Expansionary Austerity Theory: A Post-Keynesian/ Evolutionist Critique**

ALBERTO BOTTA

Working Paper No. 878, December 2016

Alberto Botta, University of Greenwich, provides a critical analysis of expansionary austerity theory (EAT), examining its weaknesses from the standpoint of both the post-Keynesian and evolutionary/institutionalist traditions. Using a simple theoretical model, he demonstrates that the short-run costs of austerity measures can breed an endless spiral of recession and debt in the long run.

Stressing the fragile theoretical fundamentals and economic mechanisms of EAT, Botta criticizes the idea that fiscal consolidation will produce benefits in the medium-to-long term, as austerity-induced short-run costs may be inconsistent with long-run benefits when mild recessionary responses to adjustment programs give rise to instability, resulting in an endless “race to the bottom.” Looking at the importance that Keynesian-type radical uncertainty plays in defining expectations and behaviors, the author emphasizes the role of country-specific institutions in shaping economic trajectories, and finds that austerity can lead to different outcomes depending on the specific monetary environment in which it is enacted.

Observing that the majority of existing critiques address the shortcomings of the econometric techniques used to analyze EAT, the author instead attempts to analytically underscore the implausibility of EAT’s assumptions from a heterodox perspective. Assuming an open economy that is operating below full potential, Botta focuses on demand-side channels in an economy composed of six sectors (i.e., working households, rentiers, nonfinancial firms, the government, commercial

banks, and the rest of the world) to examine the effects of austerity policies. Assuming also that a household’s decision to consume or save is a function of their disposable income, in line with the EAT literature, a cut in public expenditures may signal a future reduction in taxes, prompting households to spend more now in anticipation of a lower tax burden in the future; however, a permanent cut in public transfers (i.e., a less generous pension) would induce saving. This also holds for the behavior of entrepreneurs, who make investment decisions based on expectations about the soundness of the macroeconomic environment.

Proponents of fiscal consolidation contend that when well designed and credible, such policies can have a positive effect on investment and consumption through the so-called “expectations channel,” whereby economic agents with optimistic expectations about future income are encouraged to increase consumption. Botta’s theoretical framework, which assumes a fiscal consolidation consisting mainly of cuts in public transfers, demonstrates no clear outcome from such measures, noting that even when “well designed,” austerity may not be effective.

Arguing against the EAT proposition that the “financial market channel” will spur growth as the public deficit is reduced, Botta finds that no such adjustment takes place in a monetarily sovereign economy. He notes that while this channel may have some positive effect in an environment with a supranational currency (such as the eurozone), high and positive fiscal multipliers present in economies already in the midst of recession make that unlikely and may induce a short-run deterioration in fiscal variables, further jeopardizing growth. Despite the fact that discretionary budget cuts could reduce the public deficit, even a small contraction in economic activity would make any deficit deeper in the long run.

Other aspects of fiscal consolidation also prove problematic for long-run growth. Citing cuts in employment benefits as a strategy to induce wage moderation and improve external competitiveness, Botta finds that such cuts only serve to lower consumption and further deepen a recession.

The assumptions underlying the presumed benefits of EAT (i.e., that expectations are crucial in the success of expansionary austerity and such expectations are made by fully rational actors with perfect foresight) are, according to the author, both unrealistic and not representative of the economic scenario in



the postrecession period, which features deep substantive and procedural uncertainty. Based on these unrealistic assumptions, Botta argues that EAT is theoretically flawed in a reality that is dominated by path dependence, cumulative mechanisms, and multiple equilibria where the short-run costs of austerity lead to macroeconomic instability in the long run.

Botta concludes that in order to be successful in the long run, austerity must be expansionary from the onset in order to foster the macroeconomic stability necessary for growth to occur. Yet, as he observes, economists and policymakers are increasingly skeptical that this will ever materialize.

[levyinstitute.org/pubs/wp\\_878.pdf](http://levyinstitute.org/pubs/wp_878.pdf)

## Financial Stability and Secure Currency in a Modern Context

JAN KREGEL

Working Paper No. 877, November 2016

With politicians and economists advocating for schemes ranging from a return to the gold standard to the complete abolition of currency, Levy Institute Director of Research Jan Kregel revisits David Ricardo's "ingot plan," as detailed in his *Proposals for an Economical and Secure Currency*, to provide an assessment of the role of money in today's economy.

As monetary measures cannot be understood outside the historical and institutional context in which they are implemented, Kregel provides an overview of the monetary landscape of 18th-century England and situates Ricardo's *Proposals* within the framework of the evolution of the theory of monetary systems in order to analyze the work's relevance today. Much like the recent proposals for alternate currencies coming on the heels of the slow recovery from the Great Recession, at the time *Proposals* was published, England was recovering from a financial crisis that resulted in the suspension of specie payment for Bank of England notes. Recognizing the inherent risks in backing note issue with specie payment, Ricardo sought a system that might avoid such frequent suspensions and crises. He proposed a plan to create an "economical" system in which the use of minted gold coin was minimized and payments were made without the need for currency (using what Keynes would call "bank money").

Although Ricardo sought a perfect currency that would remain constant in terms of the chosen standard of value, he recognized that this was not possible, because any currency would be subject to variations in the market value of the standard. He proposed fixing the value of currency to gold bullion rather than gold coin, arguing that notes "would never fall below the value of bullion without being followed by a reduction in its quantity," since redemption of notes into gold coin at the Bank of England would be reduced. In cases where the value of bullion and paper diverged, the incentive to sell the overvalued item against the undervalued item would bring their values back into equilibrium—into "the most perfect state to which a currency can be brought."

Ricardo objected to "dual" currency proposals, given that the value against a notional unit of account could result in a situation where the price of a good remained stable in the unit of account but changed in relation to the amount of coined money needed to purchase it. While this made currency stability possible even as inflation was taking place, the implications of such fluctuations could produce a gain or loss to debtors or creditors with contracts based on the exchange rate between the unit of account and coin at the time of purchase and the time of redemption. Given his concerns about the intertemporal instability of the imaginary unit of account in specie producing variation in its value and the income redistributions that resulted, Ricardo sought to avoid variations in terms of the means of payment and the resultant impacts on income distribution, noting that "all writers on the subject of money have agreed that uniformity in the value of the circulating medium is an object greatly to be desired." Through the use of paper money and "judicious management" of its quantity, Ricardo argued that the arbitrage process would automatically provide stability in the value of currency and that it could do so more rapidly than specie, thus forming the basis for his "ingot plan."

Linking Ricardo's plan to the modern era, Kregel cites current proposals to eliminate banknotes in favor of alternative currencies, such as Ghislain Deleplace's scheme in which central bank liabilities act as legal tender and are defined by the standard debt (i.e., high-grade commercial paper).

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## Normalizing the Fed Funds Rate: The Fed's Unjustified Rationale

FLAVIA DANTAS

Working Paper No. 876, October 2016

In December 2015 the Federal Reserve Board unanimously voted to raise the federal funds rate by a quarter of a percentage point, marking the end of the Fed's postcrisis zero interest rate policy. It was the first in a promised series of rate hikes intended to bring the fed funds and other short-term interest rates to levels more consistent with the natural (or neutral) rate of interest. Flavia Dantas, State University of New York at Cortland, argues that the urgency and rationale behind the central bank's announced policy of "normalization" through a gradual increase in the fed funds rate is neither theoretically sound nor empirically justified.

In the postcrisis period, the Fed's balance sheet expanded to unprecedented levels. Critics warned that lags in monetary policy combined with low interest rates and "excessive" reserves in the banking system would translate into easy financial conditions as banks tried to get rid of accumulated reserves. With excessive liquidity associated with higher prices in the long run, this could lead the public to lose confidence in the Fed's ability to maintain price stability, causing banks to withdraw their excess reserves and put money back into circulation, further increasing prices.

Dantas asserts that this fear stems from a basic misunderstanding of the way in which money is created in modern capitalist economies. She argues that the idea that too much money causes inflation (as popularized by Milton Friedman in the 1960s) is evident in the Fed's unconventional policy responses to the crisis, and that while the money supply increased throughout the 1990s and mid-2000s, the inflation rate remained stable at an average of 2 percent; in 2008, a year that saw a dramatic increase in the monetary base, inflation actually declined. Since policy measures such as quantitative easing have a deflationary bias, this downward trend has continued, and inflation remains stubbornly low.

With the official unemployment rate standing at 4.7 percent in May 2016, the urgency to hike interest rates was further justified by the fact that we had reached maximum employment; however, headline inflation has remained below the 2 percent target rate for over six years. The Fed attributes this to

the transitory effects of a drop in oil prices and the appreciation of the dollar, insisting that inflation rates will move back to target by 2017 as these effects fade, but the evidence indicates otherwise.

According to Dantas, the fundamental problem stems from the supposed tight labor market not resulting in an increase in wages or bargaining power for labor. An economy close to the nonaccelerating inflation rate of unemployment, or NAIRU, should see wages and labor income rise; however, the nominal average hourly wage for workers remains compressed relative to productivity growth. Without significant fiscal efforts to accelerate labor compensation relative to total income, the labor share of income will continue to decline and inflation will remain below the Fed's long-term goals.

Estimating that the US economy is still roughly 20 million jobs short of full employment, and with only part of the declining labor force participation rate (LFPR) attributable to demographic trends, the author argues that normalization will push more workers from the labor force. Through construction of a model to estimate the LFPR when age demographics are not a factor, Dantas establishes that only one-third of the decline is due to structural factors. Additionally, she finds a de facto unemployment rate of 12 percent, compared to the official rate of 4.7 percent, meaning that it would take an increase in payroll employment of 325,000 jobs per month for the next five years for the economy to reach full employment and justify tight monetary policy. Without a stronger fiscal spending response, she expects the slack in the labor market and low levels of inflation to persist.

Speculating on the urgency around the Fed's push to raise interest rates, the author cites the fear that keeping rates too low for too long undermines the stability of the financial system as banks search for higher yields. History proves that these practices occur regardless of the level of the fed funds rate, so it is unclear if rate manipulation could or should be used to contain excessive risk taking. Since a fed funds rate of zero does not preclude other short-term interest rates from being positive, Dantas concludes that a low, permanent fed funds target rate could prevent uncertainty and improve the stability of the financial system overall.

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# Program: The Distribution of Income and Wealth

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## The Great Recession and Racial Inequality: Evidence from Measures of Economic Well-Being

THOMAS MASTERSON, AJIT ZACHARIAS,  
FERNANDO RIOS-AVILA, and EDWARD N. WOLFF  
Working Paper No. 880, January 2017

With the distribution of wealth becoming more concentrated in the past 20-plus years, Research Scholars Thomas Masterson and Fernando Rios-Avila, Senior Scholar Ajit Zacharias, and Research Associate Edward N. Wolff examine the effects of the Great Recession on economic well-being and racial inequality in the United States. Using the official measure of household economic well-being for the United States—gross money income (MI)—and the Levy Institute Measure of Economic Well-Being (LIMEW), the authors assess the evolution of economic inequality since 1989, with an emphasis on the period between 2007 and 2010.

While MI is the official measure employed to assess economic well-being, the authors also use the LIMEW to take into consideration the various components of overall household wealth to account for changes in public policy. The LIMEW does this better than MI because it considers other sources of income, such as public spending in the form of noncash transfers, and is an aftertax measure of income that accounts for the distributional impact of tax policy, making it a more adequate reflection of a household's command over products and services. By including the annuitized nonhome net worth of the household as well as the value of household production, the LIMEW provides a more comprehensive measure of household well-being than official measures.

Giving a general overview of the trends over the past 40 years, the authors note that the concentration of wealth toward the top of the distribution has accelerated. Nearly all gains were made due to the spectacular growth in nonhome wealth in the 1990s, disproportionately benefiting white heads of household and resulting in widening inequality, both among whites and between racial groups. Although they find that the overall wealth gap between white households and black and Hispanic households narrowed in the period between 1989 and 2007, it widened

again in the postrecession period, erasing all gains made and resulting in a situation where, on average, white households have \$8 in net worth for every \$1 of wealth held by black households.

Investigating changes in the individual components of the LIMEW over the 1989–2016 period, the authors find that, in line with MI, the contributions of base income to well-being decreased, as did income from both home and nonhome wealth and the value of household production, with only increases in net government transfers offsetting the losses. Counter to expectations, income from home wealth was the smallest contributor to changes in LIMEW for all groups in all years studied, so while home values decreased, there were smaller-than-expected impacts on wealth as a result of the housing market collapse. The largest driver of inequality was nonhome wealth; this applies both within and between racial groups.

Considering mean MI, only black households were slightly better off in 2010 than in 1989, while the LIMEW measure shows all groups of households as being better off—with black households exhibiting the least amount of progress and suffering the worst declines during the Great Recession, both in absolute and relative terms. The increase in well-being as measured by the LIMEW came from increases in public spending and decreases in taxes, both of which were large enough to offset well-being losses from the other components for all groups except blacks. While adding the value of household production helped most households significantly, black heads of household saw additional losses here as well.

Taken together, these results show increases in inequality, especially during the 1990s, but these increases leveled off and remained stable during the 2000s, according to both the LIMEW and MI. The Great Recession seems to have had no appreciable effect on the level of inequality as compared to that of the soaring nonhome wealth among whites in the 1990s, when, as a result of the exponentially larger gains made by whites, both within-group and between-group inequality increased. While black and Hispanic households remain far behind white households, measured racial inequality is still very much a function of within-group inequality as opposed to between-group inequality. The gains made by white households slowed in the 2000s, and increases in within-group inequality reduced stratification between groups, resulting in a slight reduction in inequality during the period following the Great Recession.

*levyinstitute.org/pubs/wp\_880.pdf*

## Distribution-led Growth through Methodological Lenses

MICHALIS NIKIFOROS

Working Paper No. 879, December 2016

Economic phenomena are the result of complex and often countervailing forces, but an analysis that tries to incorporate all these factors at once would be ineffective. Contending some degree of abstraction is necessary to make sense of complex economic and social realities by temporarily ignoring complicating factors, Research Scholar Michalis Nikiforos considers what constitutes an appropriate abstraction for modeling theories of growth and distribution.

The use of abstractions helps establish a logical framework for dealing with multifaceted issues by beginning with the abstract (treating labor as homogenous) and moving toward the concrete (the implications of different kinds of labor). Though complications may arise as one moves toward more specificity, the author notes that this does not invalidate the results from the more abstract level of analysis but rather serves as an entry point for further investigation. Different models abstract differently based on the specific issues under investigation, but any suitable theory of growth and distribution needs to capture the basic and essential features of a capitalist economy—specifically, the relevance of aggregate demand in the short run, the existence of un/underemployment, and a distribution of income that is primarily determined by the influence of institutions and social norms.

To illustrate the value of abstraction, Nikiforos presents a simple Keynesian model to demonstrate the fiscal expenditure multiplier or the effects of austerity. Though it ignores the potential impacts of more specific factors, such as the different types of government spending (research and development versus government consumption), he observes that it does not constitute a weakness in the concept of the fiscal multiplier or make it any less useful.

Citing Lawson's criteria for appropriate abstractions in modeling—namely, that the abstraction must be concerned with mechanisms that are real and subject to empirical scrutiny while also isolating the most essential and important elements of that reality—the author discusses the abstractions proposed by different schools of thought, noting that closure, or the direction of causality in the model, is a special form of abstraction.

Nikiforos specifically examines the choice of closures made in models of growth and distribution in various schools of economic thought to determine their appropriateness. Investigating the classical, neoclassical, neo-Keynesian, and Kaleckian closures, the author argues that only the Kaleckian—a hybrid closure that emphasizes the role of institutions and social norms as the main determinants of the distribution of income and the importance of aggregate demand—addresses the essential realities of modern capitalism and is therefore the most general and appropriate. He also demonstrates that the neoclassical abstractions (à la Friedman) are only sufficient for explaining stylized facts, and are not able to withstand empirical scrutiny.

Giving examples of classical and neoclassical models, Nikiforos notes that their denial of the reality of unemployment and acceptance of Say's law (i.e., that production is the source of demand) leads to a situation where more-specific theories are flawed due to unrealistic assumptions made in the abstract models. In contrast, the Kaleckian closure rejects Say's law while including an autonomous term to consider the role of institutional factors, such as class struggles, the power of unions, monetary and fiscal policy, and social norms. With the inclusion of this autonomous term, which also considers the role of expectations (or "animal spirits"), Nikiforos concludes that the Kaleckian model best explains growth and distribution, as it alone captures the essential characteristics of modern capitalism.

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## Program: Gender Equality and the Economy

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### Investing in Social Care Infrastructure and Employment Generation: A Distributional Analysis of the Care Economy in Turkey

KIJONG KIM, İPEK İLKKARACAN, and TOLGA KAYA

Working Paper No. 882, January 2017

Given the persistence of unemployment in Turkey despite substantial economic growth over the past 30 years, Research Scholar Kijong Kim, Research Associate İpek İlkkaracan, and Tolga Kaya, Istanbul Technical University, use an input-output framework and a microsimulation model to analyze the economic impacts of an expansion of the social care sector.

As a result of the poor state of Turkey's social care infrastructure, in particular with respect to early childhood care and preschool education (ECCPE), nearly 65 percent of all working-age women cite domestic responsibilities as their reason for staying out of the labor force. With the link between the availability of quality and affordable care and female labor force participation well established, the authors consider the impact of an expansion of the ECCPE sector on female labor market outcomes, as well as the potential demand-side effects generated by both the direct demand in the ECCPE sector and the indirect demand in the sectors supplying intermediate inputs.

Since construction has been one of the fastest-growing sectors in Turkey, benefiting from public subsidies for physical infrastructure projects, the authors chose this sector for comparison. Using a microsimulation approach, they statistically match the most likely employable persons to the jobs created for the exercise. Earnings based on individual characteristics and assigned industry and occupation are then imputed, and the tax revenues and social security contributions generated as a result of the new positions are estimated. Injecting 20.7 billion Turkish lira (\$9.5 billion in 2014 dollars) into both the ECCPE and construction sectors, the authors carry out comparative simulations to assess the impact of such spending.

Using the student-to-teacher ratios set by the Ministry of Education, the authors find that the additional funding would result in the direct creation of more than three times the number of jobs when invested in ECCPE versus the construction

sector (64.4 jobs versus 21.3 jobs per \$1 million spent), as well as the creation of 11.3 indirect jobs (the majority in the labor-intensive agricultural sector) versus 9.2 indirect jobs created (mostly in the wholesale and retail trades) through expenditures in the construction sector. Overall, the increase in investment in the ECCPE sector would create almost 720,000 direct and indirect jobs, boosting total employment by nearly 1.5 percentage points, compared to a total of 290,000 jobs created by investing in the construction sector. The ECCPE expansion also demonstrates superior performance with respect to reducing the gender pay gap and occupational segregation, by increasing female labor force participation and providing a greater proportion of professional positions for women.

Examining the fiscal sustainability of such an investment, the authors focus on the short-run stability resulting from additional income tax revenue and social security contributions. With over 85 percent of the jobs in the simulation likely to be registered, they find that the increased revenue would cover as much as 77 percent of the total expenditure for the ECCPE expansion, compared to only 52 percent for construction.

The authors conclude that an equivalent amount of public resources devoted to expanding the social care infrastructure is substantially superior to investing in physical infrastructure, not only in terms of employment generation at the aggregate level but also in terms of its effect in narrowing the gender employment gap.

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## Program: Employment Policy and Labor Markets

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### Full Employment: Are We There Yet?

FLAVIA DANTAS and L. RANDALL WRAY

Public Policy Brief No. 142, February 2017

Flavia Dantas, State University of New York at Cortland, and Senior Scholar L. Randall Wray reject the emerging consensus view that the US economy has finally reached full employment. In this policy brief, they argue that we are not even close, and that it would be a costly mistake to give up on fiscal policy or

tighten monetary policy based on the belief that the official unemployment rate is in danger of being too low and it is time to slow down the economy.

Dantas and Wray contend that the U-3 unemployment rate (4.6 percent as of November 2016) is not providing an accurate measure of the strength of the US labor market. They point to slow growth in labor compensation and the significant number of people who have been excluded from the labor force as indications of the substantial weakness that remains almost 10 years after the Great Recession began.

Despite the low unemployment rate, the employment-to-population ratio is still below its prerecession level. The authors observe that the employment ratio has exhibited a tendency to drop significantly during recessions and recover only very slowly during recoveries—far slower than the improvement in the unemployment rate.

The common explanation of this trend attributes the decoupling of the unemployment rate from the employment-to-population ratio to demographic changes, particularly the aging of the population. However, Dantas and Wray point out that the labor force participation of older workers (age 55 and older) has been rising. Moreover, the aging workforce explanation does not account for the decline since 2000 of the labor force participation rate among prime-age workers (ages 25–54). They note that men’s prime-age participation rates have exhibited the more significant long-term erosion, but in the current business cycle women’s prime-age participation rates have not regained their prerecession peaks either. Dantas and Wray calculate that, since the end of the recession in 2009, roughly 60 percent of the decline in the labor force participation rate can be attributed to factors other than the change in age demographics. The conventional demographic story, they conclude, is overstated.

Dantas and Wray also argue that other structural explanations, such as the claim that “social shifts” have altered preferences for paid work relative to leisure time or child care, or that overly intrusive labor market regulation and generous social welfare benefits have dragged down labor force engagement, do not adequately explain the data. There is another important element missing from the conventional narrative.

The authors maintain that stagnating incomes and falling prime-age participation rates are symptoms of a deficiency of aggregate demand, to which the solution is targeted

job creation. Examining Bureau of Labor Statistics data for November 2016, Dantas and Wray note that if one adds to the ranks of the unemployed (7.4 million) those who are employed part time for economic reasons and those not in the labor force who want a job now, and subtract those who are not available to work due to illness, disability, or education, the result is 20 million potential workers who have either insufficient employment or none at all. Accommodating these potential workers would require, on average, gains in payroll employment of 420,000 jobs per month for the next four years. Given that even the best year of the recovery (2014) only generated an average of 248,000 jobs per month, it is unlikely the target will be reached without a change in policy.

The authors emphasize that while infrastructure investment and Keynesian pump priming are necessary, these policies are nevertheless too diffuse to counteract the forces preventing the economy from generating full employment, and are at risk of generating inflation before the jobs are created for those who need them most. They advocate a direct job creation program—funded by the federal government but administered on a more decentralized basis (by state and local governments as well as community groups)—that would offer employment at a minimum wage to all who are willing and able to work, with projects designed to meet the public needs of the respective communities and the ultimate goal of expanding the program until the number of job openings exceeds the number of job seekers. According to Dantas and Wray, this program, modeled after Hyman Minsky’s “employer of last resort” proposal, would achieve full employment on a permanent basis while minimizing inflationary pressures by directly targeting the unemployed.

*levyinstitute.org/pubs/ppb\_142.pdf*

### Upcoming Events

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#### **26th Annual Hyman P. Minsky Conference**

##### **“America First” and Financial Instability**

Levy Economics Institute of Bard College

Annandale-on-Hudson, N.Y.

April 18–19, 2017

The 26th Annual Hyman P. Minsky Conference will take place at Blithewood, on the Bard College campus, in April. The conference will address the implications of the new administration’s “America First” policies, focusing on the outlook for trade, taxation, fiscal, and financial regulation measures to generate domestic investments capable of moving the growth rate beyond the “new normal” established in the aftermath of the Great Recession, without jeopardizing financial stability. It will also seek to assess the impact of different financing schemes on both infrastructure investment and the return of central bank monetary policies to more neutral interest rates. Since these new policy proposals will have a global impact, the conference will focus on their implication for the performance of European and Latin American economies.

Speakers will include Federal Reserve Bank Presidents Esther L. George (Kansas City) and Eric S. Rosengren (Boston); FDIC Vice Chairman Thomas M. Hoening; Peter Praet, chief economist and executive board member, European Central Bank; Levy Institute Director of Research Jan Kregel; Arturo O’Connell, formerly on the board of governors of the Central Bank of Argentina; Lakshman Achuthan, cofounder and chief operations officer, Economic Cycle Research Institute; Senior Scholars L. Randall Wray and Fernando J. Cardim de Carvalho, Levy Institute; Robert J. Barbera, codirector, Center for Financial Economics, The Johns Hopkins University; Paolo Savona, former president of the Fondo Interbancario di Tutela dei Depositi; Stephanie A. Kelton, Levy Institute research associate and professor, University of Missouri–Kansas City; Arturo Huerta González, professor, Universidad Nacional Autónoma de México; Michael E. Feroli, chief US economist, JPMorgan Chase & Co.; Levy Institute Research Scholar

Michalis Nikiforos; Edwin M. Truman, nonresident senior fellow, Peterson Institute for International Economics; and Scott Fullwiler, professor, University of Missouri–Kansas City. Additional information is available at [levyinstitute.org](http://levyinstitute.org).

#### **The Hyman P. Minsky Summer Seminar**

Levy Economics Institute of Bard College

Annandale-on-Hudson, N.Y.

June 10–16, 2017

The Levy Institute’s eighth annual Hyman P. Minsky Summer Seminar will be held on the Bard College campus in June. 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 beginning their academic or professional careers. For more information, visit [levyinstitute.org](http://levyinstitute.org).

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DIMITRI B. PAPADIMITRIOU, MICHALIS NIKIFOROS, and

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October 2016

##### ***Destabilizing an Unstable Economy***

DIMITRI B. PAPADIMITRIOU, MICHALIS NIKIFOROS, and

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##### ***How Long Before Growth and Employment Are Restored in Greece?***

DIMITRI B. PAPADIMITRIOU, MICHALIS NIKIFOROS, and

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##### ***Greece: Conditions and Strategies for Economic Recovery***

DIMITRI B. PAPADIMITRIOU, MICHALIS NIKIFOROS, and

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## RESEARCH PROJECT REPORTS

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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

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FERNANDO RIOS-AVILA and GUSTAVO CANAVIRE-BACARREZA  
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*Full Employment*

*Are We There Yet?*

FLAVIA DANTAS and L. RANDALL WRAY  
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*Investing in Social Care Infrastructure and Employment Generation: A Distributional Analysis of the Care Economy in Turkey*

KIJONG KIM, IPEK İLKKARACAN, and TOLGA KAYA  
No. 882, January 2017

*The Long-run Determinants of Indian Government Bond Yields*

TANWEER AKRAM and ANUPAM DAS  
No. 881, January 2017

*The Great Recession and Racial Inequality: Evidence from Measures of Economic Well-Being*

THOMAS MASTERSON, AJIT ZACHARIAS, FERNANDO RIOS-AVILA, and EDWARD N. WOLFF  
No. 880, January 2017

*Distribution-led Growth through Methodological Lenses*

MICHALIS NIKIFOROS  
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