Levy Economics Institute of Bard College

Summary

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Editors: Elizabeth Dunn and Michael Stephens

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LETTER FROM THE DIRECTOR OF RESEARCH

To our readers:

This issue opens with a US strategic analysis under the State of the US and World Economies program. Research Scholars Michalis Nikiforos and Gennaro Zezza evaluate whether the incoming Trump administration will accelerate the US recovery, and project the effects of a stock market correction and new round of private sector deleveraging—amounting to a replay of the 2007–9 crisis. A policy note by Research Associate Pavlina R. Tcherneva updates her US income inequality charts with data through 2015, looking at the distribution of average income growth during economic expansions between the bottom 90 percent and top 10 percent of households, and between the bottom 99 percent and top 1 percent of households.

Three working papers are also included in the State of the US and World Economies program. Tcherneva investigates the impact of President Trump's promise of 25 million new jobs and $1 trillion in infrastructure investment against a backdrop of decreased funding and privatization of key governmental institutions. Tanweer Akram and Anupam Das continue their examination of long-term bond yields with a look at the determinants of yields in economies that lack monetary sovereignty. And Nikiforos and Zezza provide an in-depth review of the existing literature on stock-flow consistent modeling, offering some insights into its origins and possible applications for future research.

In one of two working papers under the Monetary Policy and Financial Structure program, Research Associate Jörg Bibow contends that Germany's anti-Keynesian policies have exported their internal divergences and imbalances to the entire European Union, resulting in a fiscal regime that has Europe suffering its worst economic losses since World War II, while Research Associate Éric Tymoigne presents a functional approach to monetary analysis that highlights the credibility of an issuer's promise of redemption as central to an instrument's value.

In their working paper under the Distribution of Income and Wealth program, Özlem Albayrak and Research Scholar Thomas Masterson discuss their findings, for an as yet unpublished study, regarding the quality of the statistical match for four years of the Household Budget Survey and the Survey on Income and Living Conditions in Turkey.

Research Associate Ebru Kongar contributes two working papers to the Gender Equality and the Economy program. Her first, coauthored with Research Associate Emel Memiş, looks at data from the 2006 Turkish Time Use Survey to assess the effects of social policies and gender norms on time-use patterns across the life cycle. A second paper, coauthored with Mark Price, examines data from the American Time Use Survey to assess the patterns of reallocation of child-caregiving time within households faced with job loss and underemployment brought on by the Great Recession.

Finally, in a working paper under the Economic Policy for the 21st Century program, Horst Hanusch, Research Associate Lekha S. Chakraborty, and Swati Khurana employ a neo-Schumpeterian framework to consider the impact of public spending on economic development in G20 countries.

As always, I welcome your comments.

Jan Kregel, *Director of Research*

Program: The State of the US and World Economies

Strategic Analysis

The Trump Effect: Is This Time Different?

MICHALIS NIKIFOROS and GENNARO ZEZZA
Strategic Analysis, April 2017

In the early months of the incoming Trump administration, Research Scholars Michalis Nikiforos and Gennaro Zezza present a strategic analysis of the US economy using the Levy Institute's stock-flow consistent macro model. The administration enters office following another year featuring low GDP growth and, thanks to slow productivity growth, increasing employment. Nikiforos and Zezza conclude that the administration's policies are unlikely to generate a significant acceleration of the ageing recovery.

As in previous reports, the authors identify three main interrelated structural impediments to a faster recovery: income inequality, fiscal conservatism, and weak performance of net exports. The household-debt-to-income ratio remains historically high, despite decreasing in the wake of the Great Recession. Fragile household balance sheets, combined with high and rising inequality, have resulted in the slowest increase in consumption among all postwar economic recoveries. The current recovery, the authors note, is also the only one in the postwar period in which real government expenditures have declined. And although new "fracking" methods led to a sharp decline in imports of petroleum products after 2011, US net exports have continued to disappoint (real net exports have not grown since 2014Q2). Given the persistence of these structural weaknesses, many official economic forecasts—such as those emanating from the Congressional Budget Office (CBO)—have been overly optimistic. Against a background of tight fiscal policy and a continuation of the underwhelming performance of net exports, economic growth rates like those predicted by the CBO depend on debt-financed expenditure by the private sector, which is unlikely. And even if a private-debt-fueled growth acceleration were to occur, it would not end well, the authors note.

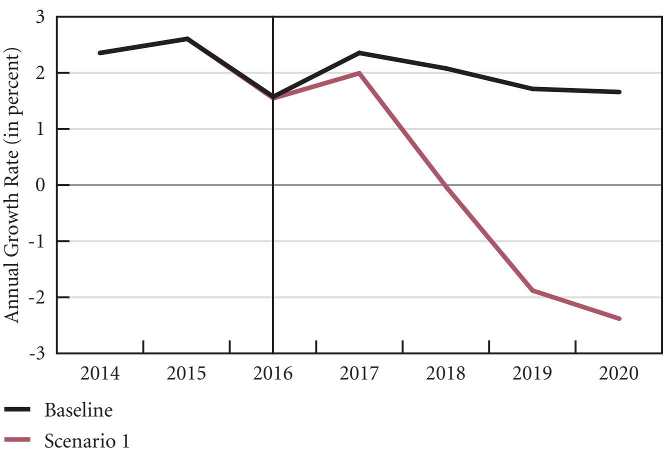
As Nikiforos and Zezza point out, the Trump campaign touched on all three of the aforementioned structural impediments, directly or indirectly. However, early signals from the new administration leave little reason to expect any action will be forthcoming to deal with these issues. The shift in spending priorities revealed in proposed budgets, measures to repeal and replace the Affordable Care Act, and the likely distributional impact of "tax reform" would increase inequality. Meanwhile, the government continues to proclaim that fiscal discipline will rule, dampening expectations of substantial fiscal stimulus. And the trillion-dollar infrastructure program promised on the campaign trail has transformed into a tax incentive scheme for the private sector that will have far less impact than direct spending, the authors explain. Finally, while decreasing the trade deficit through the use of tariffs on imports could have a positive impact on the economy, this assumes an absence of any retaliatory action by US trading partners, which is doubtful. Moreover, Nikiforos and Zezza observe that the policies so far proposed are unlikely to generate the hoped-for increase in net exports, given modern production and trade patterns. The tariffs would raise costs for US corporations that use imports as intermediate goods in production, thus having uncertain effects.

Using the CBO's projections for the government deficit and the International Monetary Fund's projections for the growth and inflation rates of US trading partners, Nikiforos and Zezza present the macro model's baseline simulation through 2020. The baseline further assumes a small increase in the price level, a constant nominal exchange rate, a mild increase in equity and real estate prices, and a gradual increase in the federal funds rate to 2.5 percent by 2020. In this scenario, slight decreases in the government deficit in 2017 and 2018 are reversed by 2020, leaving the deficit as a percentage of GDP unchanged (at 3.2 percent) from its 2016 level. The GDP growth rate increases slightly in 2017 and 2018 before dropping back close to its 2016 growth rate of 1.6 percent. The increase in GDP growth in the early years, dollar appreciation, and a rise in income payments abroad (due to higher interest rates) result in the current account deficit increasing to 4.5 percent by 2020. While the decline in household debt as a percentage of GDP flattens out and then remains stable over the rest of the projection period, nonfinancial corporate debt as a percentage of GDP increases, converging with household debt by 2020. Nikiforos and Zezza explain that while household debt is a significant driver of private expenditure, the debt of the corporate sector has become "decoupled" from the behavior of investment and growth.

Turning to the asset markets, the authors find warning signs. The Shiller price-to-earnings ratio for the S&P 500 Index has continued to rise, reaching a level that has only been surpassed in July–September 1929 and the late 1990s. Finally, the authors observe that real estate prices have recovered from their 2012 trough, with the S&P/Case-Shiller US National Home Price Index having exceeded its precrisis (2006) peak in 2016.

To estimate the effects of a stock market correction, Nikiforos and Zezza simulate a scenario that assumes the market declines in the second half of 2017 and first half of 2018. In this scenario, the S&P 500 Index falls to 1600 by 2018Q2 and then stabilizes for the rest of the projection period (that is, through 2020). In addition to the stock market decline, this scenario features a round of mild deleveraging that lasts until the end of the projection period, with the debt-to-income ratios of the household and nonfinancial corporate sectors dropping to their early-2000s levels (which would still be high by historical standards, the authors point out). This combination of a stock market slowdown and private sector deleveraging would lead to a GDP growth rate of zero in 2018, –1.8 percent in 2019, and –2.4 percent in 2020 (Figure 1). The shrinking economic growth rate would be accompanied by an improvement in the current account balance (compared to the baseline scenario) and an increase in the government deficit to 8.3 percent of GDP by 2020. This would effectively be a repetition of the 2007–9 crisis, the authors observe.
www.levyinstitute.org/pubs/sa_apr_17.pdf

Figure 1 **Real GDP Growth Rate, Actual and Projected, 2014–20**



Sources: BEA; authors' calculations

Inequality Update: Who Gains When Income Grows?

PAVLINA R. TCHERNEVA
Policy Note 2017/1, April

In this policy note, Research Associate Pavlina R. Tcherneva updates her charts on US income inequality—featured in One-Pager No. 47 ("Growth for Whom?") and Policy Note 2015/4 ("When a Rising Tide Sinks Most Boats")—with the latest data through 2015. Using data from Thomas Piketty and Emmanuel Saez, Tcherneva analyzes the distribution of average income growth, with and without capital gains, between the bottom 90 percent and top 10 percent of households, and between the bottom 99 percent and top 1 percent of households.

Up through the 1970s, the majority of households—the bottom 90 percent—received the majority of the income gains in the recovery phases of postwar business cycles. Since the 1980s, however, economic growth in the United States has become an engine of widening income inequality, with recoveries delivering an increasing majority of income growth to the wealthiest 10 percent of families. A similar trend has occurred with respect to the bottom 99 percent and top 1 percent.

In comparing the latest data with her previous reports (which examined data through 2012 and 2013, respectively), Tcherneva finds that little has changed with respect to the distribution of average income growth in the current recovery (that is, up to 2015) between the bottom 90 percent and top 10 percent of families, with or without capital gains. Tcherneva finds that although average real income for the bottom 90 percent of households is no longer shrinking (it had been shrinking through 2013), these families still captured a historically small proportion of that growth—only between 18 percent and 22 percent.

Tcherneva notes that there are significant income divergences within the top 10 percent, and even the top 1 percent, and that capital gains income is highly concentrated in the upper reaches. Capital gains income makes up 40 percent of average real income for the top 0.01 percent and 22 percent of average real income for the top 1 percent (and only 3 percent for the bottom 99 percent, by comparison). She points out that, in the current expansion phase, the incomes of the bottom 99 percent have recovered more robustly than those of the bottom 90 percent, indicating the extent to which the gains have been concentrated among those households occupying the 91–99 percent range.

Tcherneva also widens her analysis to the full business cycle (peak to peak), and finds that in the current, albeit incomplete, cycle (that is, through 2015), incomes for the bottom 90 percent and top 10 percent are both below their 2007 peak—but that this loss has been borne disproportionately by the bottom 90 percent.

Warning that an exclusive focus on raising the top marginal tax rates will have limited effectiveness in tackling this problem, Tcherneva advocates a shift toward policies targeting the labor market that would raise incomes at the bottom and middle of the income distribution faster than those at the top, including an employment safety net—offering a living wage to all who are willing and able to work—that would maintain tight full employment.

www.levyinstitute.org/pubs/pn_17_1.pdf

Stock-flow Consistent Macroeconomic Models: A Survey

michalis nikiforos and gennaro zezza

Working Paper No. 891, May 2017

Based on the pioneering work of Wynne Godley's "three balances" and James Tobin's "pitfalls approach," stock-flow consistent (SFC) models have recently been adopted by a growing number of researchers to integrate real markets with flow-of-funds analysis to better understand modern capitalism. Summarizing and expanding on the existing literature, Research Scholars Michalis Nikiforos and Gennaro Zezza provide an overview of the SFC approach, starting with its roots in the 1970s through its applications to today's economic problems. Through the use of a Keynesian closure, the authors argue that SFC models go beyond basic accounting to bring together the real and financial sides of the economy, providing an integrated approach to credit, money, income, production, and wealth that can better predict macroeconomic events.

The four primary accounting principles of SFC modeling include flow consistency (every monetary flow comes from somewhere and goes somewhere), stock consistency (the financial liabilities of one sector are the assets of another), stock-flow consistency (every flow implies a change in one or more stocks), and quadruple-entry accounting (a single transaction represents an increase in the revenue of a firm and an expense from a household, as well as a decrease in one asset of the household and an increase in at least one asset of the firm). This structure, which follows the System of National Accounts, guarantees accounting consistency for the system as a whole and is summarized in two matrices—the balance-sheet matrix and the transactions-flow matrix—that demonstrate how every liability is another sector's asset.

Given the proper accounting structure, the choice of closure (or the underlying assumptions of the model) has a decisive effect on the conclusions the model can help draw. The authors note that while accounting consistency is a feature of many neoclassical models, SFC models go further by including assumptions about the behavior of economic actors. The Keynesian assumptions implicit in SFC models provide a general closure that does not assume convergence to full employment in the long run and allows factors such as debt and leverage to impact economic decisions. Together with the behavioral assumptions about the components of aggregate demand (i.e., those related to debt, credit, assets, and liabilities), the choice of a demand-driven Keynesian closure is what differentiates SFC models from neoclassical models in which economic activity is determined from the supply side. As stocks feed back into flows, the system reaches a long-run equilibrium through a series of short-run equilibria where stocks and flows grow at the same rate, as adjustments to prices in financial markets and changes in output guarantee that saving is equal to investment system wide. This long-run equilibrium can act as a benchmark by which we can measure increasing fragility, as an increase or decrease in stock-flow ratios denotes instability in the system.

In a thorough review of the literature, the authors cite numerous studies extending the SFC models for both closed and open economies to examine financialization and gain a better understanding of the workings of modern capitalism, where against the backdrop of increasing inequality, maximization of shareholder value is the primary goal of business. Examination of an open economy's "three balances" (net lending of the foreign, private, and government sectors) in an SFC model ties together the performance of the foreign sector and the fiscal stance of the government with the trajectory of the balance sheets of the private sector, highlighting the fact that, in spite of popular policy proposals, not every economy can be export led. Studies that link the SFC approach with agent-based modeling, as well as those that use SFC models to investigate the economic impact of environmental degradation are also discussed.

Nikiforos and Zezza conclude their survey with a discussion of the name "stock-flow consistent" to clarify some confusion that it has caused. Because several classes of models, such as the Solow-Swan or Ramsey-type Dynamic Stochastic General Equilibrium models, are characterized by stock-flow consistency, it could be considered incorrect to use that as the demarcating characteristic of the models the paper describes. Though they recognize it may be too late to change the terminology, they argue the approach is the most suitable for the rigorous analysis and understanding of the political economy of capitalism.

www.levyinstitute.org/pubs/wp_891.pdf

The Dynamics of Government Bond Yields in the Eurozone

TANWEER AKRAM and ANUPAM DAS
Working Paper No. 889, May 2017

Contending that an understanding of the dynamics of government bond yields can provide a useful perspective on the causes of and possible remedies for the ongoing eurozone crisis, Tanweer Akram, Thrivent Financial, and Anupam Das, Mount Royal University, look at data for 11 eurozone countries from a Keynesian perspective to examine the drivers of the nominal yields of government bonds in economies that lack monetary sovereignty.

The conventional view asserts that government financial variables are the most important determinants of government bond yields, as investors seek higher returns to offset concerns about the financial position of a country with high deficit and debt ratios. In contrast, the Keynesian view holds that since agents in financial markets tend to be influenced by the near-term outlook, it is the central bank's policy rates and tools—which are the key drivers of short-term interest rates—that are the most important drivers of long-term rates. In previous studies for Japan and India (Working Paper Nos. 818, 834, and 881), Akram and Das's empirical findings confirm the Keynesian view for these monetarily sovereign economies. In the current study, the authors use both panel and time-series data for countries in Western Europe over the period 1997–2015 to establish the extent to which the Keynesian approach applies to the analysis of European government bond yields.

Beginning in late 2010, skyrocketing interest rates on long-term government bonds in several eurozone countries (particularly Portugal, Ireland, Italy, Greece, and Spain) caused concerns among investors who worried about default risk in the face of elevated ratios of government debt to nominal GDP, large ratios of net government borrowing to nominal GDP, and severe economic slowdown. Concerns were eased by the European Central Bank's 2012 promise to provide liquidity and keep bond yields contained, and by mid-2013, interest rates began to decline in most European countries, with some, such as Belgium and Germany, exhibiting low or negative rates since 2016.

To determine the drivers of this change in interest rates, Akram and Das look at monthly and quarterly data for short-term rates on interbank lending, the rate of inflation, the year-over-year change in the index of industrial production, the ratio of the government's consolidated gross debt to nominal GDP, the nominal yields on long-term government bonds of two-year (GB2) and ten-year (GB10) tenors, and a dummy to estimate the effects of the Great Recession. After testing for unit roots, the authors use the pooled mean group technique to examine the dynamics of government bond yields and the autoregressive distributed lag (ARDL) technique to identify the long-run determinants of the long-term bond yields in the selected countries.

The results from the pooled mean group of the monthly data show that, while in the short run the short-term interest rates become collinear with inflation, over the long run the rate of inflation is negatively related to the yields of both GB2 and GB10, with a rise in inflation correlated with a fall in long-term bond yields. In accordance with the Keynesian view, they find approximately 87 percent of the movements of long-term yields of GB2 and GB10 to be correlated with the short-term interest rates on three-month interbank lending. Results from the quarterly data reinforce the results from the monthly data, with inflation having no significant effect on GB2 and only a marginally negative effect on GB10. The quarterly data also refutes the orthodox view that the debt ratio exerts upward pressure on long-term bond yields. The time-series results from the ARDL bounds test find no statistically discernable long-run relationship for the monthly variables. However, the authors do detect evidence of long-run relationships for variables in some countries in the quarterly data, with the most important determinant being the short-term interest rate on interbank lending for three months, reinforcing the notion that short-term rates are the principal drivers of long-term interest rates for government bonds.

Akram and Das conclude that the Keynesian assumption of short-term rates driving long-term rates holds true, even for countries that lack monetary sovereignty, and suggest that further research can help inform financial, economic, and structural policy to ensure stability, restore investor confidence, and promote economic growth in the eurozone and beyond.
www.levyinstitute.org/pubs/wp_889.pdf

Trump's Bait and Switch: Job Creation in the Midst of Welfare State Sabotage

PAVLINA R. TCHERNEVA

Working Paper No. 887, March 2017

Arguing that the last half-century of long-term unemployment, acute inequality, and low economic growth is largely the result of trickle-down economic theory and policy, Research Associate Pavlina R. Tcherneva investigates the Trump administration's promise of 25 million new jobs and $1 trillion in infrastructure investment. With key indicators such as median household income and durable goods orders pointing to an overdue recessionary episode, she notes that while there is some upside potential for his promise to cut taxes and invest in infrastructure, Trump's economic populism and reactionary public policy (what she calls "welfare state sabotage") is not the right recipe for recovery.

Unpacking the administration's job-creation plan of 25 million new jobs over 10 years reveals that it creates an average 208,333 jobs per month, an amount nearly identical to the anemic pace of job growth during the Obama administration and one that will not help the over 7.6 million officially unemployed (plus the additional 12 million who are underemployed) today. In order to create these jobs, Trump's plan focuses on restoring manufacturing, increasing investment in infrastructure, cutting taxes, and deconstructing the administrative state—a mix that Tcherneva claims could have some upside potential, but also stands to present serious consequences for the long-term health of the economy.

Beginning with manufacturing, she notes that jobs in this sector accounted for only 8 percent of total employment in the United States in 2014 and represent a falling share of employment around the globe, collapsing by anywhere between 40 percent and 70 percent in developed nations since the 1970s. The US position as a net importer makes the challenge of "bringing back" manufacturing jobs more difficult as other countries support their dying manufacturing sectors with aggressive net-exporting strategies. To stay competitive, Tcherneva recommends focusing on improving conditions for workers in service-sector jobs, which now represent 80 percent of the jobs available in the United States, in order to foster the prosperous communities that manufacturing once did.

Focusing on infrastructure investment has the potential for robust job growth and, Tcherneva argues, if properly executed the planned $1 trillion in infrastructure investment could create 20 million living-wage jobs in the short run; however, she questions the ability of the construction sector to absorb this influx of labor. Additionally, the administration's push to privatize infrastructure projects may result in funding only for projects that have an ability to generate cash flow, limiting the employment-creation effect and neglecting investment in projects such as schools, roads, and hazardous waste disposal. To realize the most potential from infrastructure investment, she contends that the funds would best be spent in an employer-of-last-resort program that absorbs unemployed labor on an as-needed basis and creates jobs not only in construction, but also in the service sector, ensuring tight labor markets and full employment over the long run.

Given the nature of Trump's appointments to agencies such as the Environmental Protection Agency, the Department of Education, and the Office of Management and Budget, it is clear that his administration seeks to subvert these institutions from within by heading them with individuals whose past actions are in line with the "welfare state sabotage" approach to government that aims to decrease funding and devolve the functions of these organizations to the states and privately owned entities. Efforts to diminish these programs will also weaken the social wage, making the lives of those in the middle and lower classes more precarious as programs that socialize basic living expenses—such as those for retirement, healthcare, and education—are reduced.

Much like under the Reagan administration, Tcherneva expects Trump's policies will generate large government deficits. With plans to deregulate financial markets and implement a less progressive tax code, she foresees a situation of "Reaganomics on steroids" where any positive impact of the deficit will accrue to owners of capital and those at the top of the income distribution, thereby worsening the already critical levels of inequality. While some of the negative long-term effects may be masked by short-term improvements in economic growth, the systemic destruction of the social safety net will leave the economy in an even more fragile position as we approach the next, inevitable recession.
www.levyinstitute.org/pubs/wp_887.pdf

Program: Monetary Policy and Financial Structure

On the Centrality of Redemption: Linking the State and Credit Theories of Money through a Financial Approach to Money

ÉRIC TYMOIGNE

Working Paper No. 890, May 2017

In contrast to the mainstream functional approach to monetary analysis that links monetary and mercantile mechanics, Research Associate Éric Tymoigne presents an approach that defines monetary instruments by their financial characteristics, highlighting the role of trust in the issuer's promise of redemption as central to the instrument's value. Arguing against the metallist view that the net present value of the unconvertible fiat monetary base is zero, he puts forth the idea that given the proper financial infrastructure and a credible issuer, the net present value of unconvertible monetary instruments is their face value. He asserts that defining monetary instruments by their financial characteristics rather than their function puts us in a better position to understand our current monetary systems, as well as develop a stronger financial infrastructure for the future.

Tymoigne maintains that a proper approach to monetary analysis does not begin (or end) with focusing on the functions of monetary instruments, but rather aims at understanding what financial characteristics make them able to fulfill the functions attributed to them. While all promissory notes share some features in common, it is the way each of these features is structured that defines what kind of note it is (Federal Reserve note, stock, bond, Treasury bill). The most widely accepted promissory notes, known as monetary instruments, are negotiable, of the highest creditworthiness and liquidity, and are redeemable on demand. In both the state and credit views of money, the redemption of monetary instruments is done through taxes and debt servicing. As long as the issuer—be it a public or private entity—is deemed to be credible in their promise of redemption, the nominal value of their monetary instruments is stable. In the case of a government, it is the trust in its perceived political legitimacy that allows for the enforceable imposition of taxes—payable by a government-issued instrument—and provides the basis of a well-functioning monetary system. In the financial markets, this credibility is measured in the pricing of instruments, with more credible issuers creating instruments with a higher value.

Given that a monetary system is composed of two essential elements (a unit of account and monetary instruments denominated in said unit), Tymoigne notes that changes in the nominal value or changes in the value of the unit of account can impact the purchasing power of a monetary instrument. To accurately assess the mechanics at play, changes in the unit of account (i.e., those that are related to expected and actual changes in macroeconomic conditions) should be differentiated from changes in the nominal value related to expected and actual changes in the characteristics of a promissory note (due to default or a rise in intrinsic value) or changes in the financial infrastructure (such as a disruption in the payment system).

Addressing the confusion between redeemability and convertibility, the author notes that while convertibility is sometimes promised to enhance an instrument's acceptance, a monetary system must only allow for redeemability (or the promise to accept their instruments at par at any time in payment of debts owed to the issuer) to function properly. Additionally, he highlights the lack of historical and conceptual basis for the dichotomy between fiat and commodity money to reinforce the importance of redeemability for a proper financial infrastructure, noting that while all monetary instruments require fiat, they are not required to be secured by any form of commodity.

Applying his financial approach to various schools of economic thought, the author argues that it fits within the framework of not only the state and credit approaches, but also the circuitist, Post-Keynesian, and regulationist views. He concludes that by emphasizing what money is rather than defining it by what it does, we can broaden the field of inquiry of monetary analysis to better understand monetary trends in order to create monetary systems that function more efficiently. By properly defining the differences between commodities (i.e., in-kind payments) and finance (i.e., monetary payments), we can build a stronger financial infrastructure that provides monetary instruments with a stable nominal value to ensure they can be used as a reliable means of payment, medium of exchange, and store of value.
www.levyinstitute.org/pubs/wp_890.pdf

How Germany's Anti-Keynesianism Has Brought Europe to Its Knees

JÖRG BIBOW
Working Paper No. 886, March 2017

Research Associate Jörg Bibow contends that a misreading of the true source of Germany's postwar successes has resulted in an anti-Keynesian policy stance and penchant for price stability that are largely responsible for today's euro crisis. Asserting that the "German model" of export-led growth and low inflation only works when others behave differently, Bibow maintains that the euro was built on a fallacy of composition, resulting in a deeply flawed fiscal regime that has Europe suffering its worst economic losses since World War II.

Nurtured by the popular narrative of German economic history, as well as the Bundesbank's reputation as an inflation hawk, the "German view" (or "expansionary fiscal contraction") holds that austerity boosts confidence and hence growth. Looking at two examples from German history, Bibow illustrates why this policy, which worked well for the West Germans under the deutschmark, has become a liability under the euro.

At Versailles, Keynes warned against imposing harsh reparations on Germany, fearing that a flawed peace treaty would prevent Europe from properly recovering, leading to new hostilities in the future. Following World War II, the victors took a more cooperative approach that allowed West Germany to emerge as a prosperous and stable democracy. These vastly different postwar approaches invite us to consider Germany's actions under the euro, especially with respect to their treatment of the Greek crisis.

While the ideas Keynes presented in his *Treatise on Money* (1930) and the *General Theory* (1936) were widely discussed in Germany, it was the principles of the ordoliberal school—which featured a framework for guarding the market order that rejected any form of interventionism or central planning—that took hold in the interwar period. Compounded by their experiences with the Nazi regime and the earlier chaos of the Weimar Republic, Bibow posits that the Germans came to perceive the ideas of the *General Theory* as excessively interventionist, giving ordoliberalism its anti-Keynesian bias. Though Keynesians had their moment in the late 1960s when their policies helped cut short the 1966–7 downturn, it was the idea that ordoliberalism and the “social market economy” were responsible for the German “economic miracle” that left a lasting impression. The Bundesbank, in its role as chief enforcer of internal discipline, gained a reputation for maintaining price stability and low inflation without standing in the way of growth or actively stimulating domestic demand, making it seem as though price stability was the cause of growth. Germany’s experience with stagflation in the late 1970s pushed them to fully embrace supply-side economics and marked an end to their brief flirtation with Keynesianism and demand management.

As inflation and unemployment accelerated in the 1980s, the Bundesbank imposed a tight money policy and the Kohl government supported expansionary austerity to induce recovery. However, the recovery was sluggish and unemployment stayed high as austerity lowered domestic demand. In 1983, countries participating in the Exchange Rate Mechanism of the European Monetary System pegged their currencies to the deutschmark, allowing Germany to achieve cumulative competitiveness gains and run up sizeable external surpluses that were a precursor to divergences and imbalances to be repeated later under the euro.

In the negotiations for the Economic and Monetary Union (EMU), Germany required that all of Europe engage in unconditional austerity while disinflating to the German 2 percent stability benchmark, thereby banning Keynesianism from the EMU as a whole. However, this push overlooked the fact that the German model only works when others behave differently, leaving Germany’s exports to falter and making Germany the “sick man of Europe.” As the rest of Europe disinflated toward the 2 percent standard, Germany lost its competitive edge. Bibow argues that the anti-Keynesian conditions enshrined in the Maastricht Treaty have exported these German-made internal divergences and imbalances to the entire union, with the inadequate macro policy stance continuing to delay recovery in the eurozone.

www.levyinstitute.org/pubs/wp_886.pdf

Program: The Distribution of Income and Wealth

Quality of Statistical Match of Household Budget Survey and SILC for Turkey

ÖZLEM ALBAYRAK and THOMAS MASTERSON

Working Paper No. 885, February 2017

In order to analyze patterns of household indebtedness in Turkey in the 2000s, Özlem Albayrak and Research Scholar Thomas Masterson create a synthetic data set from four years (2005, 2008, 2009, 2012) of the Household Budget Survey (HBS) and the Survey on Income and Living Conditions (SILC) in Turkey to provide more complete information on demographic, economic, and social characteristics of individuals and households. The paper presents the quality analysis of this match, which was conducted for an as yet unpublished study.

By the end of 2010, all segments of society in Turkey had increased their consumption beyond their income levels, with household saving rates dropping to a record low while the use of credit cards and consumer loans increased. However, few studies have addressed this increase in household indebtedness and none have investigated the relationship between debt behavior, household consumption patterns, and the household’s position in the income distribution. Given this trend of increasing debt, the authors create a synthetic data set that combines the HBS and SILC to see if the relative income hypothesis, which posits that an individual’s propensity to consume and/or save is dictated by their income in relation to others, can explain household behavior in Turkey.

Using constrained statistical matching, the authors combine household expenditure data from the HBS with variables regarding household indebtedness from the SILC, creating a unique data set that allows for the study of the dynamics of household indebtedness and consumption behavior. After accounting for changes in data collection that created large differences in the population projections of the HBS prior to 2007, as well as for the difference in reference periods between the two surveys, Albayrak and Masterson identify 18 variables that were common across the two data sets to determine which would be strata variables (household disposable income; urban/rural status; family type; and educational attainment, age, and employment status of the household head) and which would be the matching variables. Strata variables were chosen because they are expected to determine the patterns of consumption in the household given their relationship to household debt and consumption expenditures.

In preparation for the matching, Albayrak and Masterson created 21 expenditure categories using the United Nations' Classification of Individual Consumption According to Purpose to reflect the detailed spending information found in the HBS for items such as food, clothing, housing, education, and healthcare. Next, they aligned the common variables from the HBS and the SILC, accounting for differences in the variables (particularly those with respect to working life and employment type) between the two surveys by creating new variables with the same definition for both.

An examination of the quality of the match reveals generally good results (excluding some population subgroups for which there were a small number of observations), with 90 percent of the weighted records matched in the first three to five rounds for each year studied, and a comparison of the density functions for expenditures showing a good transfer of the overall distribution.

www.levyinstitute.org/pubs/wp_885.pdf

Program: Gender Equality and the Economy

Gender, Socioeconomic Status, and Time Use of Married and Cohabiting Parents during the Great Recession

EBRU KONGAR and MARK PRICE

Working Paper No. 888, April 2017

Research Associate Ebru Kongar and Mark Price, Keystone Research Center, investigate the relationship between macroeconomic conditions in the United States and the time opposite-sex couples spent with their children from 2003 to 2014. Combining time-use data from the American Time Use Survey with unemployment data from the US Bureau of Labor Statistics, they examine the patterns of reallocation of child-caregiving time within households faced with job loss and underemployment brought on by the Great Recession.

With few policies in the United States addressing work-life balance for families, the authors expect to find evidence of adjustments within households as they attempt to provide adequate childcare and other necessary services when income is lost. Given that job losses were disproportionately high for workers of color and those without a college degree, Kongar and Price create separate models by gender, race, and socioeconomic status (SES) to examine the differentiated outcomes of the recession in the sphere of household reproduction.

An overview of the existing literature shows a decline in the number of married-couple dual-earner households over the course of the recession, with the number of women working nonstandard schedules increasing relative to men, suggesting that substitutions for household reproduction were taking place, particularly with respect to childcare in low-income households that were unable to access market-provided services. Combined with the added-worker effect noted in the period 2003–10, as women took paid positions to compensate for household income losses, the total work burden (paid and unpaid) of cohabiting mothers increased relative to fathers, despite the increase in time fathers dedicated to child caregiving as their hours of paid work decreased.

To explore these gendered patterns of time use, Kongar and Price focus on the time cohabiting parents were engaged with their children in primary and secondary caregiving activities, as well as the time they spent "solo" with their children (defined as time without the coparent present) and their time together as a family, comparing this data with work schedules (standard versus nonstandard) and the state-level unemployment rate (as a proxy for macroeconomic conditions). Limiting their sample to cohabiting opposite-sex parents between the ages of 25 and 64 with at least one child under the age of 19 residing in the household, the authors look at data from 2003–14 to examine changes in time use over the expansion, contraction, and recovery.

As expected from the results of previous studies, they find a cubic relationship between mothers' primary child-caregiving time and the unemployment rate, and a quadratic relationship for fathers. Estimating the primary child-caregiving time separately for mothers and fathers in high- and low-SES households, they find evidence of a widening care gap as mothers in high-SES households increase the time they dedicate to primary childcare activities relative to low-SES mothers when the unemployment rate increases. Examining subsamples by race reveals that Hispanic and white mothers increase their primary caregiving time as the unemployment rate increases, but African-American mothers' time decreases, likely reflecting the fact that married Hispanic mothers have the lowest labor force participation rates while African-American mothers have the highest. Looking at secondary child-caregiving time shows a quadratic relationship for both mothers and fathers that becomes more pronounced when applied to low-SES households.

The solo time parents spend with their children shows a complementary pattern—when fathers' care time increases, mothers' decreases—suggesting that households are coordinating their schedules to ensure that one parent is available to provide care while the other works outside the home. Family time follows a quadratic pattern, indicating that families are spending more time together when unemployment rates are over 10 percent, particularly in African-American households where family time increases significantly as the unemployment rate rises.

Overall, the authors find that worsening state macroeconomic conditions were compensated for differently based on gender, race, and socioeconomic status, but that the burden of adjustment fell disproportionately on the women in the households most affected by the recession. They conclude that analyzing the impact of economic downturns using models that are gender aware and account for differences in time use by race and SES can help to create policies that are sensitive to the increased burdens families face in the context of declining household income.

www.levyinstitute.org/pubs/wp_888.pdf

Gendered Patterns of Time Use over the Life Cycle: Evidence from Turkey

EBRU KONGAR and EMEL MEMIŞ
Working Paper No. 884, February 2017

Using data from the 2006 Turkish Time Use Survey, Research Associates Ebru Kongar and Emel Memiş examine the gender divisions of time use in paid and unpaid work over the life cycle. Placing these findings in the current context in Turkey, where female labor force participation declined between 1988 and 2015, they argue that the policies of the religious conservatist AKP government stand to exacerbate the already large gender gap in paid employment.

Turkey piloted a nationally representative time-use survey in 2006, collecting data from households about their daily primary and secondary activities through interviews and time diaries. Using survey data about the time spent on primary activities of 5,372 men and women over the age of 15 in cohabiting heterosexual couples, the authors conducted a cross-sectional analysis of the changes in time devoted to paid and unpaid labor as individuals move through their life course.

Earlier studies based on a pilot time-use survey for Turkey in 1996 estimated that women's household production accounts for up to 50 percent of total household income in low-income families (versus men's 10–18 percent), with women spending more time on unpaid work than men at every life stage. Studies in other countries associate the onset of parenthood with a higher total work burden for household adults. This is particularly true in Turkey, where labor laws are not often enforced, and social policies (such as limited access to quality childcare) institutionalize the "housewifezation" of women.

Looking at the entire 2006 survey, 23 percent of women and 69 percent of men indicated they were engaged in paid employment. Of the employed women surveyed, over 60 percent (versus 40 percent of men) worked in jobs that fell outside of the social safety net, excluding them from protections afforded those engaged in formal employment. While the gender disparity is narrowed by educational attainment, the authors note there are other supply- and demand-side factors that prevent the gap from closing completely.

Using a Tobit model to explore the time-use disparities, Kongar and Memiş consider time spent on paid work, unpaid work, leisure, and personal care, and assess how that time changes across the life cycle as people marry, have families, and retire. They use differences in household characteristics to control for time spent cleaning (house size), availability of employment opportunities (location of residence), and ability to purchase market substitutes for household production (income). By also including the age of household children and using households without children as the reference group, the authors hope to provide a more complete picture of time use and how it changes in relation to the needs of household members at different life stages.

Their findings indicate that the time men and women spend engaged in paid and unpaid work mirrors each other, with women doing more unpaid work and men doing more paid work during the years children are living at home. In spite of the drop in hours of paid work for women as they have children, their total work burden (paid plus unpaid work) is higher than men's at every stage of the life course, with their unpaid work burden reaching a peak when children are preschool aged. The gender employment gap is highest (78 percent) when parents have young children, but is still found to be 55 percent among couples without children, demonstrating traditional gender roles hold for childless couples, too.

Overall, they find that the male breadwinner norm predominates in Turkey and the effect of parenthood on the gender gap is larger there than elsewhere. Women's unpaid work provides a safety net in times of crisis—both through unpaid household reproduction work and paid employment to supplement household income—leading to a "double shift" for women. With programs implemented by the World Bank and other neoliberal organizations reinforcing gender norms of care in their policy creation, Kongar and Memiş recommend enforcement of anti-discrimination policies, increased educational and employment opportunities for women, and gender equitable work-family reconciliation policies to combat the growing inequalities. By examining how time commitments change over the life course, they hope policy decisions can be constructed to be more gender equitable so as to empower women to enter the workforce at rates equal to men.
http://www.levyinstitute.org/pubs/wp_884.pdf

Program: Economic Policy for the 21st Century

Fiscal Policy, Economic Growth, and Innovation: An Empirical Analysis of G20 Countries

HORST HANUSCH, LEKHA S. CHAKRABORTY, and SWATI KHURANA
Working Paper No. 883, February 2017

Employing a comprehensive neo-Schumpeterian framework that integrates the institutional domains of economic, political, and financial conduct, Horst Hanusch, University of Augsburg, Research Associate Lekha S. Chakraborty, and Swati Khurana, National Institute of Public Finance and Policy, New Delhi, provide an analysis of the impact of public spending on economic development in G20 countries.

With earlier research establishing a correlation between public expenditure and economic growth, the authors consider four spending priorities of the public sector (namely, spending on defense, infrastructure, human capital, and research and development) to discern what role the state can play in fostering economic development. Noting that the state has the capacity to influence the process of development through specific budgetary means, the authors investigate where the state should direct its money to have the most significant positive effect. Citing numerous studies that find investment in research and development (a proxy for innovation) to be the most crucial for long-term economic growth, they observe that the marginal product of public capital is higher than that of private capital, with the rate of social return for investment in innovation exceeding the rate of private return, highlighting the role the "entrepreneurial state" can play in development.

Following Schumpeter's assertion that innovation is a driving force in the development process, the authors use data from the International Monetary Fund's Government Finance Statistics and the World Bank's World Development Indicators for G20 countries between 2000 and 2012 to construct panel-data models to test the impact of investment in four categories of public expenditure to identify which provides the greatest return. After establishing that the variables for spending on research and development, education, health, infrastructure, and defense in their panel data are stationary and have no roots, Hanusch, Chakraborty, and Khurana analyze the link between the different categories of public expenditure and economic growth in three fixed-effects models, with spending on defense, human capital, and infrastructure as control variables. Their results show that while public expenditure on innovation and human capital (aggregate spending on health and education) both matter for economic growth, a 1 percent increase in spending on research and development results in 33 percent more growth than the same investment in human capital. The results for infrastructure and defense spending show no significant impact on growth.

The authors conclude that in pooled regressions with cross-section weights, the coefficient of innovation is much higher than the coefficients of the other three variables, implying that public spending on innovation has a significant impact on economic growth in G20 countries. They suggest that these findings are in accordance with Schumpeterian ideas of economic growth and this "innovation-driven" approach is crucial for sustainable development.
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INSTITUTE NEWS

New Research Scholar

Research Scholar Peter Bofinger is a member of the German Council of Economic Experts, an independent advisory body to the German federal government. He is also a professor of international and monetary economics at the University of Würzburg and serves as a research fellow at the Center for Economic Policy Research, London. He is a member of the standing field committees of the Verein für Socialpolitik (German Economic Association), concentrating on issues related to monetary and economic policy. Prior to becoming a professor, he was an economist at Deutsche Bundesbank from 1984 to 1990. Additionally, he served as the vice president of the University of Würzburg from 2003 to 2004. He holds a Ph.D. and a habilitation ("venia legendi") from the University of the Saarland.

Focusing his research on monetary theory and policy, he has worked extensively on issues related to the European Monetary Union and on the prospects for further monetary and political integration in Europe. He has recently discussed the implications of alternative models for the financial sphere (real models versus monetary models) for the analysis of interest rates and international capital flows.

A Note on the *Summary*

Beginning with the Winter 2017 issue, the *Summary* will no longer be offered in print form as we transition to a digital-only publication. Past and future issues may be found on the Levy Economics Institute website (www.levyinstitute.org/publications). To keep up to date with all the happenings of the Institute, please sign up for the Levy News at www.levyinstitute.org/pressroom/enews/.

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