Levy Economics Institute of Bard College

Summary

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LETTER FROM THE PRESIDENT

Dear reader,

Although the COVID-19 pandemic is finally showing signs of turning the corner in some countries, in many areas of the world we are seeing some of the highest daily infection rates to date. Ultimately, the virus must be eradicated globally, after which rebuilding the world economy will require a coordinated effort; an undertaking that would be aided by reform of the international financial system. In a trio of publications, Senior Scholar Jan Kregel explores how the plumbing of an existing cross-border payment system associated with a private company provides the operational blueprints for a potential revival of John Maynard Keynes's international clearing union proposal, and how the willingness of central banks to consider electronic currency provides an opening to reconsider this reform. The clearing union moves away from the central role of dominant national currencies to the creation of global liquidity, which can be mobilized to support sustainable development of the least developed countries.

In the United States, President Biden's infrastructure proposal is being paired with plans to restore some of the corporate taxes cut in 2017. In a working paper, Edward Lane and L. Senior Scholar Randall Wray argue that once we understand the purposes and incidence of corporate taxation, it is revealed to be a particularly inefficient tax; they recommend more progressive alternatives to taxing corporate profits. And with the President's fiscal proposals drawing the debate over Modern Monetary Theory (MMT) further into the spotlight, Yeva Nersisyan and Wray explain that while Japan, which is occasionally held up as a poster child for MMT, helps demonstrate some of the errors of mainstream thinking concerning sovereign budgeting, policy-wise the country has not been in line with MMT prescriptions.

Working papers included in this *Summary* deal both with COVID-related issues and those that are more enduring. Looking at the current crisis, Research Associates Emel Memiş and Ebru Kongar investigate the impact of pandemic-associated daycare closures on the time parents of young children dedicate to caregiving in Turkey, and M.S. Candidate Daniel Haim applies Hyman Minsky's work on public employment programs to demonstrate how jobs that generate socially useful output can help us face today's challenges and create a greener tomorrow. As part of a larger investigation into time use in sub-Saharan Africa, Research Scholar Fernando Rios-Avila, Abena D. Oduro, and Research Scholar Luiza Nassif Pires analyze factors that may explain the gendered differences in household production burdens to identify where policy can help achieve a more egalitarian distribution and reduce women's time poverty. Research Associate Sameh Hallaq reviews three strands of literature on the Palestinian labor market over the past three decades, illustrating how the ongoing conflict in the region impacts decisions around education and employment. Two papers focus on building stock-flow consistent (SFC) models for Latin American economies: Lorenzo Nalin and Guiliano Toshiro Yajima use an SFC model for Mexico to demonstrate the balance sheet effects of the 2014 currency depreciation and Sebastian Valdecantos details construction of a novel SFC model for Argentina to test the impact of alternative policy scenarios had they been implemented over the course of the previous decade. Tanweer Akram contributes two papers to this issue. The first, coauthored with Syed Al-Helal Uddin, considers the empirics of long-term bond yields in Mexico, and the second provides a reflection on Keynes's writings on the state theory of money, financial markets, and uncertainty.

As always, I welcome your comments.

Dimitri B. Papadimitriou, *President*

Program: The State of the US and World Economies

Balance Sheet Effects of a Currency Devaluation: A Stock-Flow Consistent Framework for Mexico

LORENZO NALIN and GIULIANO TOSHIRO YAJIMA

Working Paper No. 980, December 2020

Lorenzo Nalin, National Autonomous University of Mexico (UNAM), and Giuliano Toshiro Yajima, Sapienza University of Rome, empirically and theoretically analyze the exchange rate's role in Mexico's growth for the period 2004–19, when low interest rates coincided with a boom in commodity prices, attracting foreign capital to Latin America until the boom's end in 2014 reversed flows and resulted in a depreciated currency. Based on limited evidence of a positive association between currency depreciation and expansionary macroeconomic performance, Nalin and Yajima suggest that during the period under investigation the depreciation was not favorable for private sector capital accumulation in Mexico due to the (re)emergence of the balance sheet effect for nonfinancial firms, many of which had expanded their balance sheet's exposure to foreign liability revaluations. Exploring the theoretical implications of the balance sheet effect, they develop a stock-flow consistent (SFC) model that tracks transactions between sectors, assets, and countries to assess the impact of financial flows on the real exchange rate (RER) and other macroeconomic variables while also addressing the center-periphery asymmetries between developed and developing countries.

Nalin and Yajima begin with a review of the literature on how the exchange rate impacts income and income growth in small, open economies, summarizing these transmission mechanisms into four groups (i.e., trade channel, investment channel, redistribution channel, and financial/balance sheet channel). They find the financial impact of RER depreciation has received less attention, but existing literature does suggest that while there are some exceptions, devaluations are likely to have a negative effect on output and growth in countries with high external debt burdens.

The authors build their model to describe two simple economies (Mexico and the United States) composed of five sectors and six financial assets. Their addition of "financial intermediaries" among the sectors modeled represents a novel modification to the traditional OPENFLEX model that incorporates the issuance of corporate securities in foreign bond markets and, they say, helps provide a more realistic depiction of today's deeply integrated financial markets. To account for the increasing tendency of the nonfinancial sector in emerging economies to finance investment via international fixed income markets—where the value of liabilities denominated in foreign currency depends on the exchange rate—they also consider the accumulation process of firms that financed their productive activities by issuing securities to ascertain how their profits are exposed to the predicted balance sheet effect. After defining their equations, they calibrate their model including stylized facts about the two economies under investigation and compute a steady state, generating a stylized interpretation of both economies from which they examine the impact of shocks compared to a baseline scenario.

The episode Nalin and Yajima choose to evaluate is the end of the commodity price boom in Mexico (2004–14), modeled as a positive shock in the exogenous components of exports at the beginning of 2004, a decrease in the US interest rate in 2009, and a decrease in exogenous demand for exports and increase in the US interest rate in 2014. Results from their simulation show that during expansionary phases, nonfinancial firms issue external debt to finance investment to meet growing demand; when depreciation materializes and the RER remains undervalued relative to the baseline, balance sheet effects leave firms with a higher stock of debt to repay with a devalued domestic currency. They find that a negative shock in the currency followed by a prolonged period of undervaluation could have long-lasting effects on several variables that ultimately discourage private, nonfinancial investment, especially for firms that already suffer currency mismatches. Nalin and Yajima note that after the depreciation the system does find a new equilibrium, but with a higher stock of debt and lower investment flow, a situation they say could explain why Mexico has recently experienced a constant increase in the private sector's external debt coupled with a lower investment ratio.

www.levyinstitute.org/pubs/wp_980.pdf

Argentina's (Macroeconomic?) Trap: Some Insights from an Empirical Stock-Flow Consistent Model

SEBASTIAN VALDECANTOS

Working Paper No. 975, November 2020

After a peak in growth in 2011, Argentina's GDP has been oscillating with a decreasing trend that has mostly been driven by exchange rate dynamics accompanied by a parallel rise in the inflation rate that Sebastian Valdecantos, National University of General San Martin and National University of Mar del Plata, says has resulted in a lost decade. The weak economic performance over the period coincided with two conflicting political ideologies and, contends Valdecantos, the confrontation of the two models was a symptom of a near century-old ideological struggle that left Argentina poorer than it was ten years prior. Against this background, Valdecantos builds a quarterly stock-flow consistent (SFC) model for the period 2007–19 to ascertain how Argentina's economic performance could have been different had other policy combinations been implemented.

Describing Argentina's performance over the past 50 years, Valdecantos explains that financing the persistent current account deficit of the 1990s with foreign funds left Argentina's economy vulnerable and at the end of 2001 triggered a default on its external debt, with currency depreciating 280 percent in six months and GDP contracting by nearly 11 percent over the following year. The abandonment of the currency board that occurred contemporaneously with the default allowed Argentina to enact a floating and competitive real exchange rate policy that Valdecantos claims appeared to lay the foundations for sustainable growth, with the economy's financial balances demonstrating government and external surpluses and the private sector net saving. The onset of the global financial crisis (GFC) limited external financing and, says Valdecantos, the resulting dynamics of the financial balances forced Argentina onto an unsustainable path. He adds that the accompanying acceleration in inflation was the driving force behind the conflicting policies of Cristina Fernández de Kirchner's (2012–15) "social Keynesian" wage-led regime of accumulation and the finance-dominated regime of Mauricio Macri (2016–19) and ultimately put Argentina in a precarious position, internally and externally, for weathering the emerging COVID-19 crisis. Valdecantos applies various theoretical perspectives to the period to develop the fundamental research questions he will address with his SFC model: Could any of the governments that ruled Argentina over the period have found a more sustainable policy framework, and, if not, is it possible to find solutions to Argentina's persistent instability in the domain of macroeconomics?

Providing a review of the relevant literature on the general SFC tradition as well as studies specific to Argentina, the author chooses the Levy Institute's four-sector model to guide his approach, presenting his balance sheet and transaction flow matrix for a single-good economy where domestic production, as carried out by firms and households, is assumed to be demand-led and captured by GDP. In presenting his equations, Valdecantos defines his data sources and describes his methods for imputing data for which there is no official source; the resulting model is composed of 68 endogenous variables and 57 exogenous variables, 18 of which he considers "policy variables" over which the government has some control. Valdecantos simulates his model through "shocks" that correspond with the various proposals for alternative policies, represented by a change in the exogenous variables in the first period.

His results demonstrate that while more market-friendly policies during the center-left Kirchner administration may have yielded better growth performance without jeopardizing the economy's external sustainability, it would have come at the expense of income distribution; simulations for policy alternatives to the center-right decisions of the Macri government showed none were able to produce sustainable results. Valdecantos concludes that while it may have a role to play, macroeconomic policy alone will not prevent Argentina from experiencing another lost decade.

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Program: Monetary Policy and Financial Structure

Keynes's Clearing Union Is Alive and Well and Living In Your Mobile Phone

Policy Note 2021/1

Another Bretton Woods Reform Moment: Let Us Look Seriously at the Clearing Union

JAN KREGEL

Public Policy Brief No. 154, February 2021

In a pair of publications, Senior Scholar Jan Kregel explains how an existing clearing system can serve as a model for potential implementation of John Maynard Keynes's international clearing union proposal. While governments today (as in the past) may consider Keynes's original clearing union proposal for the international financial architecture too radical or thorny, Kregel notes that the private sector has already produced a virtual equivalent of a global monetary system—one provided as an extension of the operations of a private company's international mobile telephone services rather than a financial institution.

In Kregel's estimation, prevailing proposals for reform of the international financial system, such as those centered on increasing the role of special drawing rights (SDR), would do little to address the instability inherent in preserving the current system. He explores how the reform alternative left behind at Bretton Woods—Keynes's clearing union—is more amenable to digital transactions and would surmount the flaws of existing reform proposals. Kregel argues that the willingness of central banks to consider electronic currency provides an opening to reconsider this more innovative reform—one that, while discarded in the 1940s, is more appropriate to a digital monetary world.

Taking into account that Keynes's proposal was rejected due in part to the political and economic dominance of US financial concerns of the postwar period of reconstruction—and that such concerns, with regard to the preservation of national autonomy, for instance, would certainly be resurrected in any attempt to elevate the clearing union idea—Kregel investigates whether such a clearing system could be built up from an already-existing initiative that has emerged in the private sector. He describes the operations of a private (global) payment system whose plumbing could serve as a real-world blueprint for a more politically palatable equivalent of Keynes's international clearing union.

Kregel begins by outlining the evolution of the international monetary system and the theoretical approaches applied to managing its shifting challenges. He emphasizes the importance of Keynes's theoretical alternatives to the gold-based "quantity theory" of money and the then-prevailing theory of banking which emerged from that theory. Keynes's "banking principle"—the concept of offsetting debits and credits in a "clearinghouse" or common balance sheet—was central to the development of the clearing union idea, as Keynes explained the logic of his proposal in reference to domestic financial institutions. The international clearinghouse, in which a common unit of account would be used to register debits and credits for the purpose of settlement, was envisioned as a form of bank clearing writ large. The proposal that was ultimately adopted at Bretton Woods, Kregel goes on to observe, resembled an elevation of fractional reserve banking to the international level—and brought with it the instability inherent to domestic fractional reserve financial systems.

The common unit of account in Keynes's proposal—his "bancor"—posed an obstacle to the clearing union gaining support, and would likely do so again in any attempt to revive the idea. However, Kregel notes that an alternative already exists in the private sector, which could be conceived of as a precursor to a broader international clearing system that could deliver the core benefits of Keynes's original proposal. He outlines the operations of Webtel.mobi (WM)—a specialized mobile telephone service provider that also offers subsidiary payment services. Members of this system load their accounts with credits (through bank transfer, card payment, or cash) to be used not only for prepayment of mobile phone services, but also transactions between members, including across national boundaries. The WM system plays the role of bookkeeper in this arrangement, providing a clearinghouse mechanism such that members' account balances adjust as they engage in global transactions but the overall system balances remain stable.

The WM system, when conceived of as an embryonic clearing union, reflects Keynes's banking principle in its operations. Transactions are enabled between members without any movement or transfer of funds besides the debit/credit entries on WM members' accounts. As a model for a broader international union, it would have the benefit of not needing a new international currency, use of something like SDR, or capital or reserve balances—and it would have the potential to control international imbalances, ensure greater stability within the system, and support the creation of global liquidity, according to Kregel.

Drawing further parallels, Kregel observes that the WM system could be conceived as operating in a fashion similar to that of E. F. Schumacher's proposed system of "pool clearing," designed to address problems of multilateral exchange.
www.levyinstitute.org/pubs/pn_21_1.pdf
www.levyinstitute.org/pubs/ppb_154.pdf

Has Japan Been Following Modern Money Theory Without Recognizing It? No! And Yes.

L. RANDALL WRAY and YEVA NERSISYAN
Working Paper No. 985, February 2021

Contrary to mainstream predictions, for the past several decades Japan has maintained some of the world's highest debt and deficit ratios without experiencing high interest rates, inflation, or insolvency. Because Modern Money Theory (MMT) insists that countries with a sovereign currency face no budget constraints and can always make payments as they come due, it has often been argued that Japan's economy is operating under MMT principles. Senior Scholar L. Randall Wray and Yeva Nersisyan, Franklin and Marshall College, contend that while Japan may provide an example of why long-held fears about government red ink may be overstated, their debt was not acquired pursuing the active fiscal policy proposed by MMT but rather because of their failure to do so.

Grounded in Abba Lerner's "functional finance"—the idea that the government budget is a tool for pursuing the public interest rather than for maintaining a certain balance between revenue and spending—MMT prioritizes using fiscal policy to achieve full employment through programs that strengthen the social safety net and increase economic performance by reducing uncertainty, such as those outlined in the Green New Deal. While Japan does outperform the United States in providing for the public welfare, since the early 1990s Japanese fiscal policy has not only been out of line with MMT's recommendations for strong countercyclical spending, it has also been largely ineffective, say Wray and Nersisyan, pointing to the lower-than-announced stimulus spending that was cut off too early as the main factors behind their anemic growth. Responding to the combined contraction in investment, consumption, and government spending that placed a drag on the economy at the end of the 1990s with several tax hikes to "pay for" their ageing population's needs was also inconsistent with MMT, which does not view taxes as a source of funding for government spending.

Wray and Nersisyan illustrate the path to an economy's deficit with Wray curves, suggesting it is either "ugly" or "good," with Japan's path since the 1990s reflecting the former. On the ugly (non–MMT) path, austerity results in negative growth and a higher deficit ratio as tax revenues collapse and nondiscretionary fiscal spending increases. In Japan, the stop-go nature of their fiscal policy did not support a robust recovery and the deficit grew thanks to automatic stabilizers rather than intentional discretionary policy actions. The good (MMT) path of a measured and targeted stimulus, assert Wray and Nersisyan, would have raised incomes and increased confidence, ultimately lowering deficits and raising growth. Viewing the situation by the sectoral balances approach, where the authors note not every sector can net save and it is prudent for the private sector to run a surplus to avoid fragility, a persistent government debt will be necessary to inject demand into the economy and generate growth.

Validating a core MMT claim on the monetary side, the authors note that declining (and negative) long-term interest rates on government bonds mirroring the Bank of Japan's (BoJ) lower discount rate over the period demonstrates that they are largely dependent on the central bank's policy stance, and in turn have reduced Japan's debt servicing costs despite higher debt levels. Japan's turn to more aggressive monetary measures in the form of quantitative easing (QE) had a relatively small impact and Wray and Nersisyan refute claims that QE is an ex post "money printing" operation consistent with MMT's recommendations. Though Japan's experience confirms Keynesian expectations that low interest rates alone will not always increase borrowing when confidence is also low, the authors suggest that a simple commitment from the BoJ to keeping rates low may have achieved the same ends without the need for large-scale asset purchases or fueling speculation and fraud by fund managers chasing yields.
www.levyinstitute.org/pubs/wp_985.pdf

The Empirics of Long-Term Mexican Government Bond Yields

TANWEER AKRAM and SYED AL-HELAL UDDIN
Working Paper No. 984, February 2021

Tanweer Akram, Wells Fargo, and Syed Al-Helal Uddin, College of St. Benendict and Saint John's University, apply a Keynesian perspective to empirically modeling the relationship between the short-term and long-term interest rate in Mexico using monthly macroeconomic data. Their results suggest that the central bank's decisions play an important role in the long-term interest rate dynamics of Mexican government bonds (MGBs) of various maturity tenors.

In contrast to the neoclassical theories, which maintain that bond yields are a function of the demand for and supply of loanable funds, John Maynard Keynes contended that in a market characterized by uncertainty, interest rates have psychological and sociological foundations in which an investor's liquidity preference plays a role. Driven by herding and animal spirits, investors take their cues about the future from present information, resulting in a situation where the long-term interest rate moves in lockstep with the short-term interest rate. Because the short-term interest rate is dependent on the central bank's policy rate, Akram and Uddin assert that the central bank can influence the long-term interest rates on government bonds. This relationship has been empirically demonstrated in recent years for various developed countries and the authors add to the scant literature on studies demonstrating this relationship in emerging markets with their models for Mexico.

Akram and Uddin present their model, based on Akram's interpretations of Keynes's theory of the long-term interest rate as articulated in the *Treatise on Money* and *General Theory*, and some stylized facts about the evolution of the Mexican economy over the past two decades. Of note, plotting the short-term interest against the central bank's overnight target policy rate demonstrates that they generally move in tandem, and scatterplots of yields of MGBs of various tenors and their year-over-year percentage point changes reveal they are positively correlated with yields on 3-month federal treasury certificates (Cetes).

Applying monthly data on the short-term interest rate, long-term interest rate, inflation, and economic activity from January 2004 through December 2018 to the model, the authors employ the autoregressive distributed lag (ARDL) approach for modeling the MGB yield dynamics, first performing unit root tests to detect stationarity, then cointegration tests to determine if there is a long-run relationship between the variables, and finally error correction models. Unit root tests reveal that most of the variables are nonstationary in their levels, but stationary in their first differences, with a mix of I(1) and I(0) processes among the model's variables; because of this, Akram and Uddin opt for the bounds testing approach for their cointegration tests. Setting the null hypothesis as no cointegration among variables, they specify five models for the bounds test, rejecting the null hypothesis in all but model 1, where the results are inconclusive. With this confirmation of a long-run equilibrium relationship among MGB yields and their other variables, they employ a dynamic multivariate vector error correction model to estimate short-run coefficients by restricting the long-run relationship through the cointegrating equations. In all their models, the main variable of concern—the short-term interest rate—is positively correlated to the yields on 10-year MGBs, such that a 1 percentage point increase in the short-term rate is associated with a long-run increase of between 42 and 57 basis points in their yield. Diagnostic tests for misspecifications, autocorrelations, and heteroscedasticity confirm their model is well-specified and robustness checks using 5-year MGB yields validate their findings.

The authors conclude that their empirical results strengthen the case that the Keynesian approach can be useful for modeling MGB yields and informing policy decisions, as the Bank of Mexico's (BdM) actions appear to have a decisive influence on the Treasury yield curve. By keeping the overnight policy rate low, Akram and Uddin suggest the BdM can prevent spikes in MGB yields over the long run; combining this with other instruments of monetary policy action, they add, can keep the interest rate low over both the long- and short-term horizon.

www.levyinstitute.org/pubs/wp_984.pdf

The Economic Problem: From Barter to Commodity Money to Electronic Money

JAN KREGEL

Working Paper No. 982, January 2021

Providing a theoretical background to Public Policy Brief No. 154 and Policy Note 2021/1, in this working paper Kregel explains money and its role in the economy, contrasting the mainstream idea that it evolved out of a process of market exchange, where money possesses or represents a physical attribute underlying its economic value (i.e., banknotes or precious metal coins), with an alternate explanation, supported by the historical record, that looks at money as part of the organization of production and distribution based on network clearing systems across balance sheets, expressed in a common unit of account. In answering calls for a supernational cybercurrency, it is from this latter understanding that the author contends we should begin.

Kregel begins with an outline of the mainstream narrative of money based on writings from Adam Smith and J. B. Say—where an individual's provisions depend on access to other producers' specialized output through the process of market exchange and prices are the mechanism that allow ever-larger markets to operate efficiently without any centralized plan—that led to market exchange and value being considered in terms of bilateral exchange ratios determined through a process of bargaining or barter. To remedy the inefficiencies in a more-complex economy with n outputs and n(n-1)/2 bilateral exchange ratios, commodity money was used as a benchmark to simplify the ratios back to n-1. As the intermediary that facilitates this exchange, Kregel notes that commodity money should, but by definition cannot, have a stable value that is independent of the market and therefore requires monetary policy intervention to maintain its value as a store of purchasing power over time. This internal inconsistency, he adds, is further complicated by bank-issued money that has replaced commodity money as a lower-cost means of payment but has no inherent commensurate value in exchange. The modern monetary system, where central banks control money creation and payments are made by netting on the banks' books ("the banking principle") without physical money changing hands, still fails to correctly define "money," an oversight Kregel suggests is further highlighted in the recent interest in, but limited success of, digital currencies.

To remedy these shortcomings, Kregel advises that we look to historical accounts indicating that physical exchanges were recorded in-kind and valued in an agreed upon notional unit of account, with divergences rectified in later exchanges or by clearing of accounts at the end of a specified period. Luigi Einaudi's description of an "imaginary" money of account ("numbers") coexisting with a commodity money ("libra") illustrates how employing both physical and monetary exchange can remove limits from economic transactions so long as creditors are willing to extend negative balances. In such a system, where use of physical coin or commodity was but one of several options for settling debts, Kregel says we find evidence of the simultaneous operation of a monetary and nonmonetary economy that can inform today's move toward digital currencies. Following arguments from A. Mitchell Innes, Hyman Minsky, and others that money's value comes not from the underlying commodity but rather from its ability to extinguish debt, Kregel proposes an alternative arrangement that would eliminate commodity money by consolidating accounts under a central bookkeeper that would track and clear individual imbalances in a system that remained in balance overall. In spite of drawbacks to commodity money's elimination—namely mismatches in time contracts, difficulty managing control fraud, and the temptation for the sovereign to "cry up" the exchange ratio—Kregel says it is a necessary component of any attempt to create a cybercurrency that can successfully compete with the current bank-based commodity money system.

At present, Kregel contends, there is an existing system that provides the possibility of replicating the account settlement system—of taking on the role of bookkeeper in the banking principle arrangement. This system is part of the operations of an internet telephone service provider that offers subsidiary domestic and international payment services, and it has a radically different structure from existing mobile transfer systems; in its operating procedures, Kregel explains, the system comes close to reflecting the alternative explanation of money he articulates in this working paper. As summarized on pages 6-7 (Public Policy Brief No. 154 and Policy Note 2021/1), Kregel describes the operations of the Webtel.mobi system and its suitability as a blueprint for a potential reform of the international system based on John Maynard Keynes's international clearing union proposal.

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A Note Concerning Government Bond Yields

TANWEER AKRAM

Working Paper No. 977, November 2020

In continuation of his investigations into bond yields from a Keynesian perspective, Akram reflects on Keynes's writings on money, the state theory of money, financial markets, investors' expectations, uncertainty, and liquidity preference, relating them to government bond yields in countries with monetary sovereignty.

Akram asserts that understanding money is essential for formulating proper monetary policy, noting that Keynes subscribed to the state, or chartalist, theory of money, where money's origin was tied not to the purchasing power of some commodity, such as gold, but to credit and debt. Drawing a distinction between money and money of account, Akram cites Keynes's contentions in *A Treatise on Money* that "money-of-account itself is the description or title and money is the thing which answers to the description" and "Money itself [...] derives its character from its relationship to Money-of-Account, since the debts and prices must first have been expressed in terms of the latter. [...] Money-Proper in the full sense of the term can only exist in relation to a Money-of-Account." Per Akram's interpretation, Keynes further recognized the importance of the state in this relationship, as it determined what served both as money and money of account. Because the state could change what was considered "money," modern money—comprising not only legal tender, but also central bank money, commercial bank money, nonbank financial institutions' money, and so forth—was essentially state money.

Keynes extended the state theory to consider the social foundations of money, financial assets, and financial markets and institutions, as well as market uncertainty and investors' liquidity preference, which Akram says paved the way for today's Modern Money Theory (MMT) and others that contend a state with monetary sovereignty has the operational ability to always service their debt. Also borne out of Keynes's theories is what Akram considers an insightful perspective on government bond yields that recognizes the scope and limits of the central bank's role in financial markets, where monetary policy drives the long-term interest rate on government bonds through the short-term interest rate. Though counterintuitive, Akram points to the various features of financial institutions that Keynes says caused the two rates to align. Akram suggests that because investors have scant information about the future and must make decisions relying on current information, ontological uncertainty and liquidity preference are central determinants of the long-term interest rate. Conventions and herding behavior (as described by Keynes's "beauty contest" metaphor) also influence market sentiment "where no solid basis exists for a reasonable calculation," and, according to Akram, help to keep the long- and short-term interest rates largely aligned; he adds that literature on bounded rationality and behavioral economics further supports Keynes's hypothesis. Akram asserts that by regarding the interest rate as "the reward for nonhoarding" of cash and other bank money, Keynes recognized the influence liquidity preference has over investment decisions when faced with an uncertain future. When liquidity preference is fixed, the central bank's policy stance will be the primary driver of investors' price actions, notes Akram, essentially giving the central bank the ability to determine the interest rate.

The Keynesian hypothesis on government bond yields stands in contrast to the mainstream loanable funds theory and reflects the operational realities of modern treasuries, central banks, and the financial system. Formal models based on the Keynesian hypothesis, where the long-term interest rate depends on the short-term rate and an appropriate forward rate (that Akram observes can only be informed by present information), demonstrate that the neoclassical concerns about the relationship between government debt and deficit ratios and bond yields are largely misplaced, though, he points out, not entirely irrelevant, even in economies with monetary sovereignty.

Akram suggests that if the recent empirical findings are accurate, by engaging in monetary-fiscal coordination, a state with complete monetary sovereignty has substantial space for implementing policies targeting full employment, price stability, and sustained economic growth. He adds that these findings are relevant for contemporary policy discussions and controversies in economic theory regarding fiscal stimulus, the monetary transmission mechanism, and government debt management.

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Program: Distribution of Wealth and Income

Intrahousehold Allocation of Household Production: A Comparative Analysis for Sub-Saharan African Countries

FERNANDO RIOS-AVILA, ABENA D. ODURO, and
LUIZA NASSIF PIRES
Working Paper No. 983, February 2021

Research Scholar Fernando Rios-Avila, Abena D. Oduro, University of Ghana, and Research Fellow Luiza Nassif Pires analyze the factors that may explain gender differences in the time allocated to household production in sub-Saharan Africa, where women bear most of this unpaid work burden. By analyzing how household characteristics relate to household production's unequal distribution between couples in Ethiopia, Ghana, South Africa, and Tanzania—where inequality within and among countries is some of the highest in the world—they hope to identify gaps that can be addressed by public policy to achieve a more egalitarian distribution and reduce women's time poverty.

In a review of the literature, the authors describe the various theoretical models developed to explain the distribution of unpaid household work within couples—namely, the time availability, resource, and gender ideology theories. They note that these theories only capture the experience of couples in the global North and point to ways in which each excludes stylized facts surrounding gender norms, as well as employment and living arrangements in sub-Saharan African households. From an empirical standpoint, they find limited literature discussing the distribution of unpaid work in sub-Saharan Africa, mostly due to the limited availability of time-use data, and studies that do exist only describe women's unequal share of the distribution but have not focused on estimating its determinants.

To analyze the determinants of this distribution in the countries in their study, Rios-Avila, Oduro, and Nassif Pires build a bivariate Tobit model to estimate the impact that a group of variables has on the time that married couplies devote to household production. Reflected in the model is their assertion that the number of hours a husband and wife dedicate to household production will be a function of (often unobservable) characteristics that affect their bargaining power and a reaction to their partner's decisions regarding their own involvement. Data for their model comes from time-use surveys in the form of 24-hour time diaries recorded at the household-member level in each country describing each member's activity (in the categories of care, core, and procurement) over the previous day. They limit their sample to married heterosexual couples, excluding households where other adults are present. To keep the model specification consistent across all countries, they control for age, education, and employment status of each spouse, as well as the number of children present in the household. Household structure and access to basic services can also impact time use, therefore the authors include controls for these and other related factors to reflect realities in the households in their study.

Summary statistics for the dependent variables (hours of husband's and wife's household production) show that women contribute between 79 percent and 87 percent of household production time, with between 18 percent and 55 percent of men contributing zero hours; men who do contribute do so at a rate that is less than half that of women in the study. Reporting on each of the determinants of interest, the authors find that though there is significant variation across the countries in their study, there are a few consistent results that can be highlighted. Their model predicts that women who engage in paid employment dedicate fewer hours to household production, while unemployed women dedicate more hours than their self-employed counterparts—evidence they suggest may provide support for the time availability theory, since women might reduce their housework given stricter constraints on their time. They note, however, that the positive impact that wives' paid employment has on husbands' hours can also be interpreted as indicating that bargaining power plays a role in defining the division of household production between husbands and wives, although it is only significant for Ethiopia and Ghana. Furthermore, there is evidence that factors that impact the overall hours necessary to fulfill the household needs, such as the presence of young children, increase wives' hours more. In the case of time-saving characteristics, such as the use of electricity, they observe a greater decrease in husbands' hours, also providing some support for the gender ideology theory.

To draw policy conclusions, the authors point to the fact that around half of the time that husbands contribute to household production is spent in activities done simultaneously with their wives. Therefore, it is important to address the role complementarity and substitutability of household production plays in the allocation of husbands' and wives' time to ensure efforts aimed at increasing husbands' contributions do not place even higher demands on their wives.
www.levyinstitute.org/pubs/wp_983.pdf

Program: Employment Policy and Labor Markets

What Jobs Should a Public Job Guarantee Provide? Lessons from Hyman P. Minsky

DANIEL HAIM

Working Paper No. 981, January 2021

Increasing unemployment in the wake of COVID-19 shutdowns has inspired renewed calls for a government-sponsored job guarantee program in the United States and abroad. Levy M.S. Candidate Daniel Haim explores Distinguished Scholar Hyman P. Minsky's moral and economic arguments for a public employment program to ascertain what types of jobs Minsky might have recommended implementing today.

Writing throughout the second half of the twentieth century and inspired by New Deal–era policies, Haim points out that Minsky was critical of welfare transfer payments, instead advocating for a full employment policy that included a job guarantee to remedy what he saw as the moral evil of unemployment. Influenced by John Maynard Keynes and the institutionalist economists at the University of Chicago, who included economics as part of a broader study of an interconnected society, Haim says Minsky considered unemployment not as human flaw, but rather a systemic flaw best remediated through policy that recognized employment was crucial to an individual's dignity and self-respect. To that end, he envisioned the central government ("Big Government") and their infinitely elastic demand for labor as a modern society's employer of last resort, akin to the central bank's ("Big Bank") role as lender of last resort in a crisis. Minsky acknowledged that not everyone could or should work—noting that "sane adults should be free to choose poverty, but no one should have poverty thrust upon him"—but that providing a job to anyone who wanted one would generate socially useful output to benefit all.

Haim's examination of Minsky's economic arguments for a job guarantee focus on his contention that the financial system at the center of the modern global economy should enable capital development and raise living standards for all. However, the era's mainstream policies that focused solely on growth created a system that was inherently unstable. Believing it was not possible for regulation to keep ahead of financial innovations and that policy should focus on a public purpose, a job guarantee would simultaneously address what Haim says Minsky (and Keynes before him) considered the three flaws of capitalism: instability, unemployment, and inequality. The program would function as an automatic stabilizer, providing floors and ceilings to the business cycle and effectively setting the minimum wage for what Minsky estimated to be a fraction of Big Government's spending on Social Security and defense.

Addressing the type of jobs a public employment program should provide, Haim considers Minsky's preference for programs that emphasized resource development over transfer payments and suggests they would be those that increase socially useful output where needed, taking people as they are on a project-by-project basis. Instead of "foreign adventures, military procurement, and space spectaculars," Minsky favored spending on New Deal–type programs that could be extended to address the modern economy's education and care deficits that disproportionately impact women and minorities. To best meet these needs, programs would be offered at different levels of government and provided in the communities where the unemployed already lived, which, contends Haim, benefited rural areas where investment is often absent. Minsky argued that jobs should be targeted to specific types of unemployed persons—namely those who are younger, older, or low-skill—and therefore be designed to require little to no training; however, given the rapidly changing labor market, Minsky advocated for the expansion of community colleges, which, Haim argues, he saw as the best way to educate adults.

Applying Minsky's ideas to the current crisis, Haim suggests that a targeted job guarantee could be used to provide

support for the production and distribution of goods and services, such as meal delivery for those under quarantine and childcare for essential workers. After the threat has passed, Haim proposes taking Minsky's suggestions and those formulated from his ideas (i.e., the Green New Deal) to create a democratic, bottom-up job guarantee program that accounts for complex structures of discrimination and provides opportunities for those who have traditionally been left behind.
www.levyinstitute.org/pubs/wp_981.pdf

The Palestinian Labor Market over the Last Three Decades

SAMEH HALLAQ
Working Paper No. 976, November 2020

Research Associate Sameh Hallaq reviews three strands of literature on the Palestinian labor market since 1990, namely those focused on returns to schooling, the cost of measures related to the ongoing conflict in the region, and the wage differential due to geographical and employment sector factors.

At the individual level, the decision to invest in education carries opportunity costs and, says Hallaq, at the national level returns to schooling are an important policy variable with long-term consequences for human capital development, which in turn affects aggregate output. Since the 1967 war to today, Palestine has experienced an increase in educated labor against a background of increasing violence and decreases in foreign aid that Hallaq says has resulted in depressed wages and increased unemployment. Given the challenges specific to Palestine's labor market, Hallaq notes that those with higher levels of education are less dependent on finding employment in Israel (where wages are often higher) and in spite of the private returns to education that are lower than those found in other countries, human capital investment is safer than investment in physical capital that can be destroyed or confiscated.

Approaches to estimating private returns to schooling use excess benefits over costs but, the author points out, economists do not agree on the best methods for overcoming endogeneity problems in the wage function that arise because of omitted variable bias (i.e., the potential correlation between the schooling coefficient and innate ability) or measurement error in estimating the education covariate. Regardless of method, overall results of the nine studies in Hallaq's review indicate that returns to education increase exponentially as individuals attain higher levels of education and investment in education contributes to reducing unemployment and increasing wages.

Hallaq next discusses three subtopics considered when investigating the economic costs of the Israeli–Palestinian conflict. The first deals with political violence and the economic condition in an attempt to ascertain how an individual's social circumstances influence their decision to engage in conflict. Findings in Hallaq's review suggest that, in defiance of conventional assumptions, labor market conditions are more closely correlated with terrorist activities than education levels or economic status. The second subtopic concerns the economic costs of the conflict on the labor market in light of increasing controls on crossborder movements since 2000 that restrict Palestinian labor from operating in the Israeli market. Hallaq notes that overall findings suggest barriers to mobility have a negative impact on the probability of being employed and wages earned, with a heterogenous effect on wages depending on educational attainment and employment sector. The economic cost of the conflict on human capital is the focus of the third substrand, with the author surveying a growing body of literature reflecting on how exposure to violence affects short- and long-term outcomes around education, child labor, and health. Here findings indicate violence has a negative impact on educational attainment, academic performance, and noncognitive behavioral issues, while increasing the incidence of child labor. Additional findings suggest that increases in violence's intensity are matched by a short-run decrease in support for peace in the region, perpetuating these deleterious outcomes.

The final strand of literature in Hallaq's review deals with geographic and sectoral factors that impact wage differentials in the Palestinian labor market. Following the Oslo Accords (1993), the establishment of the Palestinian National Authority (PNA) divided the West Bank and Gaza Strip into three areas with different levels of control; circumstances for those living in Area C are particularly difficult due to movement restrictions and lack of basic services. Studies on the impact of Area C restrictions on residents' wages show they suffered a wage penalty relative to their counterparts in Areas A and B that was similar to those observed for rural versus urban workers. Other factors, such as employment in Israel or refugee status, are also found to affect the wage differentials in

the region. Regarding sector of employment, Hallaq notes that nearly one-quarter of jobs in Palestine are in the public sector and funded by foreign aid administered by the PNA. Studies under review indicate that public-sector wage penalties prior to the Second Intifada were reversed as demand for public-sector labor rose in tandem with the supply of low-skilled private sector labor, however, this increase in public-sector employment was vital to limiting the negative demand shock, with one study finding that increasing public-sector employment also increases employment in the private sector.
www.levyinstitute.org/pubs/wp_976.pdf

Program: Gender Equality and the Economy

Potential Impact of Daycare Closures on Parental Child Caregiving in Turkey

EMEL MEMIŞ and EBRU KONGAR
Working Paper No. 978, November 2020

As pandemic-related closures and social distancing requirements affected childcare arrangements around the globe beginning in early 2020, Research Associates Emel Memiş and Ebru Kongar attempted to analyze the potential impact on the gendered patterns of parents' caregiving time in Turkey. Though at the time of writing there was no data on the actual impact yet available, the authors employ time-use data from the 2014–15 Turkish Time Use Survey (TTUS) to predict how married parents of preschool-aged children (0–5 years old) might reallocate their time toward caregiving when substitutes (either market-provided or from unpaid family members, such as grandmothers) are unavailable.

The authors note that women in Turkey bear the burden of unpaid work at greater rates than those in most other OECD countries. The persistence of the traditional male-breadwinner model makes single-earner households the norm among married couples and labor force participation rates are lowest for married women compared to their unmarried counterparts. For mothers, Memiş and Kongar point to institutional constraints, such as insufficient public provisioning of child and adult care services, as the primary reason those of childbearing age (25–49) did not seek work outside the home in the past 12 months. Data from the 2006 TTUS demonstrate that mothers of preschool-aged children engage in caregiving activities at five times the rate of fathers and, based on the experience during the Great Recession, the authors expect the current loss of nonparental childcare arrangements will increase the already-significant gender gap in caregiving time.

Using data on over 5,000 married and cohabitating parents of preschool-aged children from the 2014–15 TTUS to estimate the gender-differentiated outcomes in parental caregiving times when nonparental childcare arrangements become unavailable, Memiş and Kongar calculate the weekly time each parent devoted to primary, secondary, and total childcare. Their results suggest that compared to those who have access to nonparental childcare, mothers of preschool-aged children in Turkey spend nearly 90 more minutes engaged in childcare activities a day. Assessing the gender difference in time devoted to childcare activities, mothers spend over 2.5 hours a day more on such activities than fathers, a gap that narrows to just under an hour a day in households that can avail themselves of nonparental care. The authors note that the bulk of the gap is narrowed because mothers in the latter type of households now spend less time on care (particularly on primary care activities), not because fathers spend more. Assessing the time spent on care by time of day, Memiş and Kongar find engagement peaks between 10 am and 4 pm for mothers without nonparental childcare. Mothers who do have outside arrangements generally spend less time during these hours and therefore the authors predict that they will be most affected by daycare closures. Use and loss of nonparental care appears to have only a small effect on fathers' caregiving time, which, in both types of households, peaks in the early evening.

Memiş and Kongar conclude that in spite of the dearth of nonparental childcare options in Turkey, mothers of preschool-age children will still be disproportionately impacted by the loss of these services due to COVID-19 closures and social distancing requirements. They contend such evidence reveals existing inequalities in the Turkish system, which constrain women's labor force participation options, and suggest that improved nonparental childcare arrangements could transform the gender division of labor.
www.levyinstitute.org/pubs/wp_978.pdf

Program: Economic Policy for the 21st Century

Is It Time to Eliminate Federal Corporate Income Taxes?

EDWARD LANE and L. RANDALL WRAY
Working Paper No. 979, November 2020

The downsides of the federal corporate income tax outweigh any benefits it provides, argue Edward Lane, SUNY Albany, and Senior Scholar L. Randall Wray, suggesting that in addition to the claim that it amounts to double taxation by taxing both the corporate income and distributed dividends, its unnecessary and costly complexity, uncertain incidence, and perverse incentives are reasons to reconsider its utility. By looking at taxes from a perspective of who pays and why, the authors assert we can design a more equitable system.

Addressing the issue of what taxes are really for, Lane and Wray cite Beardsley Ruml's writing at the end of World War II that recognizes "fiscal policy should and can contribute a great deal toward obtaining a high level of productive employment and prosperity." Developments at the time, namely the creation of a modern central bank and the end of the gold standard, gave the US government the policy space it needed to pursue these objectives without first having to raise revenue through taxes. Lane and Wray point instead to Ruml's assertions that taxes serve to reduce demand should it become so high as to cause inflation, provide for a more egalitarian distribution of wealth, express public policy through subsidizing or penalizing ("sin taxes") certain industries and activities, and directly assess the costs of certain benefits (such as highway tolls or Social Security contributions) to the user. Using these guidelines to determine the fitness of the corporate income tax in addressing these needs, Ruml and others, according to the authors, find it is particularly unsuited to the task.

Examining a tax's role in "paying for" a spate of progressive social policies proposed during the last presidential election, the authors note that new programs will be financed in the same way all government programs have been financed for more than a generation: through congressionally authorized credits to bank accounts of suppliers and recipients of transfer payments via an approved expenditure, and not via tax revenue. Lane and Wray outline how the proposed taxes on billionaires and high-speed stock trading favored by progressives will encourage high earners to take advantage of loopholes to reduce taxable income below thresholds and ultimately be self-defeating by decreasing overall revenue. Corporate taxes, also favored by progressives, would ideally pay for the privileges incorporation confers while punishing them for bad behavior (i.e., irresponsible environmental, fiscal, and labor practices). The authors' analysis of the data shows that instead of raising any significant revenue, federal corporate income taxes raise compliance and lobbying costs, incentivizing inversions that eliminate jobs and reduce not only federal liability, but also at the state and local level, where governments do depend on revenue to finance expenditure. To remain viable investments for current and potential shareholders, firms resort to tactics such as transfer pricing, raising product prices, or cutting costs (including labor costs), consequently the tax becomes regressive as the burden is shifted from the wealthy shareholders to the consumer in the form of higher prices and lower wages.

Lane and Wray turn next to Richard and Peggy Musgraves' seminal book on public finance and their principles of a desirable tax structure. Though much has changed since their analysis in the mid-1980s, Lane and Wray suggest there are multiple problems with the corporate tax from their tax-theoretic perspective. Focusing on the tax's fairness and its interference with good business decision making, they again note that burden shifting leads to a final distribution of tax incidence that is different from the statutory incidence. The Musgraves' suggestion for eliminating the tax on corporate profits and integrating the corporate-sourced income into the individual income tax would make it more difficult to shift the incidence from the shareholders, making the tax progressive but, say Lane and Wray, it does not go far enough and is self-limiting in that it would lead to firms retaining profits as tax shelters.

Abolishing the corporate tax would eliminate nearly $200 billion in revenue and result in windfall gains to already wealthy stockholders that could generate inflation but, according to the authors, it is more likely to increase inequality. To prevent this negative consequence, Lane and Wray suggest a combination of tax reform to offset the reductions and place the burden on those who can most afford it, including the federal government itself.

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UPCOMING EVENTS

29th Annual Hyman P. Minsky Conference

A virtual conference organized by the Levy Economics Institute of Bard College
May 5–6, 2021

The 2021 Hyman P. Minsky Conference on the State of US and World Economies will be a two-day, virtual event featuring speakers from government, academia, financial institutions, and the media, as well as Levy Institute scholars, focusing on "Prospects and Challenges for the US and Europe in an Emerging Post-Pandemic Recovery." The conference will feature presentations by the Presidents of the Federal Reserve Banks of Chicago and Dallas; European conditions will be the focus of the former UK minister and the professor from the University of Groningen, while private sector analysts from hedge funds and policy think-tanks will assess the potential for current economic policies to confront the challenges posed by the pandemic.

To learn more or to register, please visit the Levy Institute website at levyinstitute.org.

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Editors: Elizabeth Dunn and Michael Stephens

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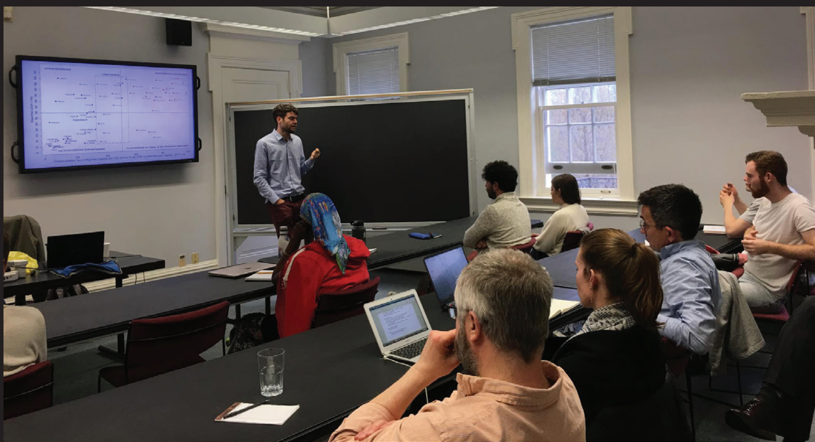

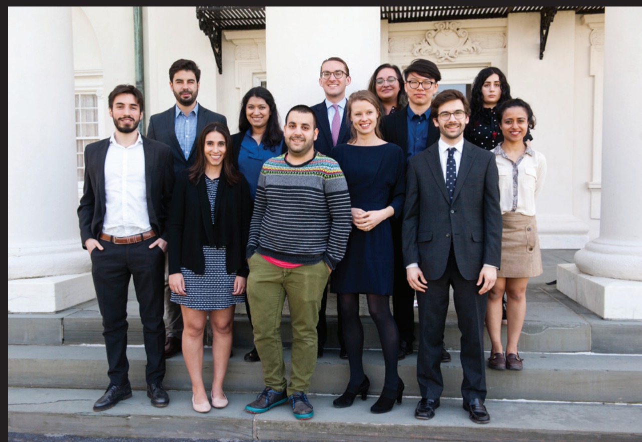

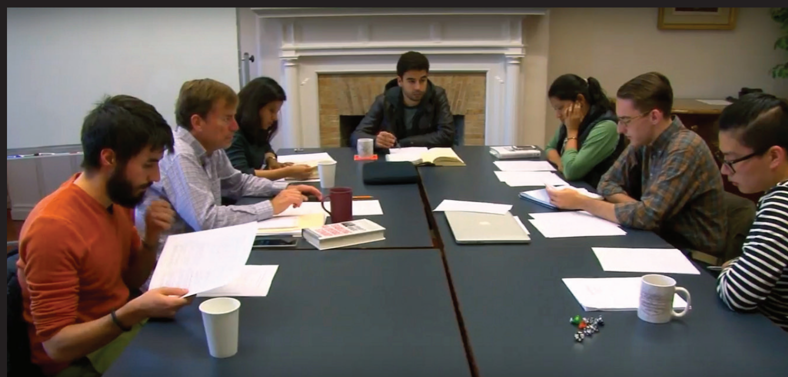

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