



# Summary

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## LETTER FROM THE PRESIDENT

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### Dear reader,

After nearly two years since the first cases of COVID-19 were reported, many of the extraordinary fiscal measures taken to support economies are waning, and proposals for further fiscal expansion—notably those that are the subject of ongoing US congressional negotiations—are coming under increasing political pressure. In both of the Strategic Analyses featured in this issue, which are focused on the United States and Greece, the future path of fiscal policy looms large. In our report for the United States, Research Scholars Michalis Nikiforos and Gennaro Zezza and I evaluate the likely impact—with and without revenue offsets—of President Biden’s infrastructure and families plans and highlight persistent structural weaknesses that continue to threaten the US economy’s stability. In that vein, we urge US policymakers to prioritize decreasing the trade deficit. Moreover, we address ongoing concerns about the inflationary dangers of fiscal expansion, finding the US economy was not close to its full potential pre-pandemic and that the mechanisms that could lead to runaway inflation are not in place. In our report on the Greek economy, authored by myself, Research Associates Christos Pierros and Nikolaos Rodousakis, and Research Scholar Gennaro Zezza, we examine the experience of the Greek economy—one of the hardest hit in the eurozone—analyze its state of acute macrofinancial instability, and evaluate different policy scenarios for the near term. Much depends on whether grants and loans from the EU’s Recovery and Resilience Facility end up being distributed in an orderly and timely manner, and for a more robust recovery, we examine the potential boost to economic growth from a job guarantee program for Greece. With the reimposition of restrictive Maastricht budget rules lurking on the horizon, the prospects of a satisfactory recovery in Greece hang on fiscal expansion.

Yeva Nersisyan and Senior Scholar L. Randall Wray urge the Biden administration to reconsider its commitment to the “pay-for” approach to budgeting for its social and physical infrastructure packages. They argue that the focus on ensuring that revenues keep pace with spending increases can undermine the goals internal to both the public investment and tax components of the administration’s plans. And, in a policy note, Wray and Edward Lane explain that corporate taxes are poorly suited to either containing inflationary pressures or reducing inequality. Beyond the specifics of the Build Back Better agenda, we would be better off,

in their view, with the elimination of federal corporate taxes and a replacement centered on the taxation of unrealized capital gains.

Continuing the Institute’s work on tracing the COVID-19 crisis’s impact on inequality, Research Scholar Luiza Nassif Pires, Luísa Cardoso, and Ana Luíza Matos de Oliveira assess the importance of the “emergency benefit” (Auxílio Emergencial) in containing increases in poverty and extreme poverty in Brazil, and analyze changes in poverty gaps based on race and gender. They caution that a revised version of the program that features a planned reduction in benefit levels for 2021 will leave many behind, with a disproportionate impact on black women.

Working papers in this issue focus on more perennial issues, with Research Scholar Michalis Nikiforos contributing to the literature on whether utilization is endogenous to demand in the long run by examining the potential determinants of capacity utilization over the period 1989–2019; Tanweer Akram continues his examination into the Keynesian nature of the relationship between the short- and long-term interest rate in two papers presenting new models that incorporate the Keynesian approach while allowing other macroeconomic factors, such as the central bank’s policy rate, inflation targets, and inflation expectations to have a role; Frank Veneroso and Mark Pasquali compare the trajectory of the Souk al-Manakh, an over-the-counter market in Kuwait, to US markets today, noting that both featured historically low official interest rates and elevated moral hazard; Pablo Gabriel Bortz discusses what he considers the most important turning points in the evolution of Keynes’s theory of the business cycle, beginning with his early writings and culminating with the *General Theory*; and Research Associate Lekha Chakraborty, writing with Amandeep Kaur, Ranjan Kumar Mohanty, and Divy Rangan, assesses the fly-paper effects of ecological fiscal transfers in India.

In spite of the spring’s stringent travel restrictions, we successfully hosted our annual Minsky conference as a virtual event that attracted familiar faces, as well as participants and attendees who may not have had the opportunity to attend our traditional gathering at Blithewood. Panelists included speakers from government, academia, financial institutions, the media, and Levy Institute scholars, who discussed financial market instability, governance and reform, and prospects for the US and global economies. Video and audio of the proceedings are available on the Institute’s website at [levy.org/events](https://levy.org/events).

As always, I welcome your comments.

Dimitri B. Papadimitriou, *President*

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

### The Pandemic, the Stimulus, and the Future Prospects for the US Economy

DIMITRI B. PAPADIMITRIOU, MICHALIS NIKIFOROS, and GENNARO ZEZZA

Strategic Analysis, June 2021

The US economy’s 2020 GDP decline represented one of the least severe downturns among the advanced economies. One of the main reasons for this resilience, according to Institute President Dimitri Papadimitriou and Research Scholars Michalis Nikiforos and Gennaro Zezza, was the magnitude of the US fiscal response. Net federal outlays reached 31 percent of GDP in 2020, which exceeds the previous postwar peak (24 percent in 2009). As expected, the increase in the government’s deficit was accompanied by a substantial rise in private sector net lending and an increase in the current account deficit. In this strategic analysis, the authors examine how the three main financial balances (government, private, and foreign) have evolved since the pandemic crisis began and assess the medium-run prospects for the US economy.

The household sector as a whole was able to make it through 2020 without an increase in its debt-to-income ratio (however, this overall picture masks some heterogeneity: households in the bottom quintile experienced an increase in their liabilities, after nearly a decade of deleveraging). By contrast, corporate sector liabilities increased by 9 percentage points of GDP—which is the largest one-year change on record (with data available since 1960)—against the baseline of an already-elevated ratio of indebtedness for the corporate sector. Moreover, this increase in the corporate debt ratio was not just a function of the collapse of GDP, but also due to a significant increase in the stock of corporate debt.

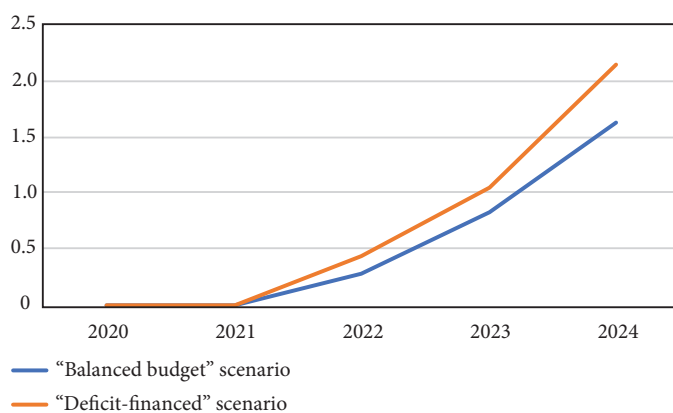
Using the Levy Institute’s macroeconometric model, the authors show that the American Rescue Plan Act (ARPA) will significantly increase the growth rate in 2021 and, to a lesser

extent, in 2022. The government’s budget deficit will surpass 13 percent of GDP in 2021 and 6 percent in 2022. The US economy’s higher growth rate results in the current account deficit widening to 6.3 percent of GDP by 2024. Finally, the private sector becomes a net borrower—which has not happened since 2007.

Papadimitriou, Nikiforos, and Zezza also evaluate the macroeconomic impact of the Biden administration’s plans for investment in physical and social infrastructure—the proposed American Jobs Plan and American Families Plan. They simulate two related scenarios: one in which the infrastructure spending is fully offset by increases in taxation of high-income households (“balanced budget scenario”) and one in which there are no revenue offsets (“deficit-financed scenario”). Both scenarios would increase real GDP compared to the baseline (a baseline that includes the impact of the ARPA), but the deficit-financed scenario would have a greater impact: by 2024, real GDP would be 1.6 percent above the baseline with full offsets and 2.2 percent above the baseline without budgetary offsets (see Figure 1).

As the authors point out, their sectoral balances framework reveals a structural weakness in the US economy (one that is by no means recent). With the US current account deficit increasing in the near future, sustaining economic growth requires either permanently expansionary fiscal policy or net borrowing on behalf of the private sector. If the latter, household debt-to-income ratios will climb again. For these reasons,

**Figure 1 Percentage Difference in Real GDP Compared to ARPA Baseline**



Source: BEA; authors' calculations

the authors advise that US policymakers should prioritize controlling the trade deficit.

In the context of the ongoing debate about the inflationary dangers of further fiscal policy action, the authors argue the chances of “overheating” are small. First, they show that the economy was not close to full employment before the COVID-19 crisis and that there was still a significant degree of slack at the time of writing (June 2021), as indicated by measures of employment and capacity utilization. In addition, they observe that the mechanisms that could lead to accelerating inflation are weak in the case of the present-day US economy (organized labor in the United States, for instance, does not have enough power to contribute to a potential wage-price spiral). While inflation might climb higher in the near term, they conclude this will mainly be due to base effects—the fact that year-over-year price increases that have drawn so much attention during the COVID crisis’s recovery phase have followed sharp price decreases that occurred during the earlier phase of the pandemic—and bottlenecks connected with global supply chain issues.

[www.levyinstitute.org/pubs/sa\\_6\\_21.pdf](http://www.levyinstitute.org/pubs/sa_6_21.pdf)

## Restarting the Greek Economy?

DIMITRI B. PAPADIMITRIOU, CHRISTOS PIERROS,  
NIKOS RODOUSAKIS, and GENNARO ZEZZA  
Strategic Analysis, May 2021

Greece was hit particularly hard by the COVID-19 pandemic: the economy’s 2020 GDP decline was one of the worst among the European Union and eurozone member states, and the country suffered the highest levels of unemployment and underemployment. In this report, Papadimitriou, Zezza, and Research Associates Christos Pierros and Nikos Rodousakis update their analysis of the state of the Greek economy on the basis of recently released provisional data for 2020Q4. Among their policy conclusions is that, for Greece, adequate fiscal expansion is central to achieving a satisfactory economic recovery from the pandemic crisis.

The authors observe that the Greek economy is afflicted by macrofinancial instability, in the form of combined fiscal and external fragility. In 2017–19, the balance of payments was in deficit while the fiscal budget showed a slight surplus position. These two facts entail that the private sector’s financial balance

was in deficit—an unstable situation, since the private sector was relying on using its assets or increasing its liabilities to finance its expenditures. The pandemic then significantly transformed the private sector’s spending patterns, particularly for households, whose consumption fell by more than their disposable income, such that household savings were positive for the first time since 2012. Meanwhile, nonfinancial corporate expenditures stayed roughly the same. Thus, as the private sector’s overall financial balance shifted to positive territory, the major drop in tourism in 2020 meant a higher balance of payments deficit, and the fiscal expansion—an attempt to support aggregate demand to partially compensate for the fall in exports of services—resulted in a fiscal deficit equal to 9.7 percent of GDP. Nevertheless, the private sector’s external debt increased, with the external debt of nonfinancial corporations and households rising in 2020. This is due, the authors explain, to a change in ownership of nonperforming loans (NPLs): that is, the transfer of NPLs to external funds. Greece’s international investment position, which was already net negative, deteriorated further in 2020. As Papadimitriou et al. explain, the Greek economy’s financial exposure to the rest of world worsens the country’s external fragility. In that context, Greece’s weak productive structure generates trade deficits, entailing an outflow of funds, and the increase in external debt means higher future interest and principal payments to the rest of the world. In order to compensate for this external fragility and boost domestic household disposable income, public investment is key. However, Greece is also in a weakened fiscal state, with its already-high public debt ratio and the prospect of a return to Maastricht budget rules looming.

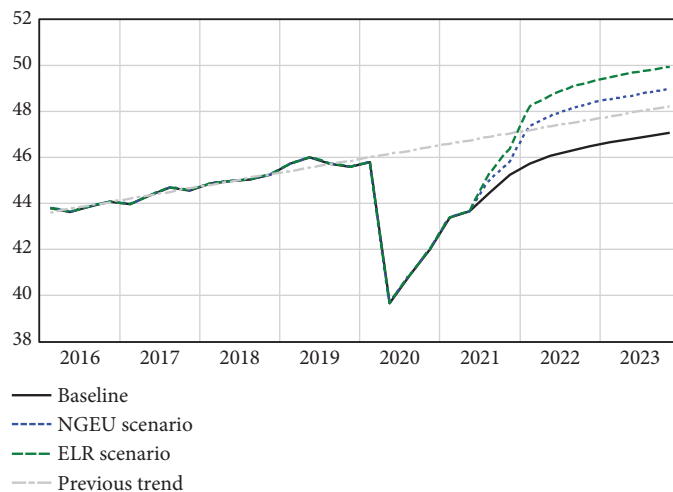
Turning to their medium-term outlook for the Greek economy, the authors project a baseline scenario through 2023. In this baseline, they do not include the disbursement of funds from the EU’s Recovery and Resilience Facility (NGEU). They do, however, assume that the Greek government will continue its economy-supporting fiscal measures (additional expenditure as well as deferral of tax payments) for the first two quarters of 2021. Furthermore, they assume that tourism will resume in 2021Q3 and continue rising in subsequent quarters as the significant impacts of the pandemic begin to fade, with the number of tourists increasing roughly 60 percent in 2021 compared to 2020. They note, however, that this (perhaps) optimistic assumption regarding tourism (and therefore exports of

services) would still only bring tourism to 58 percent of its 2019 level. This baseline would be a worst-case scenario, they observe, from the standpoint of developments in Brussels and Athens—as it implies no agreement will have been reached on the disbursement of NGEU funds, and would push the Greek government to tighten fiscal policy in anticipation of a reintroduction of Maastricht Treaty rules.

In their first alternative scenario, Papadimitriou et al. model the impact of the NGEU grants and loans being approved and distributed before the end of 2021. The impact on Greece’s real GDP would be modest in 2021, but more substantial in the following years. Nevertheless, by 2023 real GDP would still be 20 percent below its 2008 level in this scenario. In their second alternative scenario, they follow their previous strategic analysis in examining the impact of an employer-of-last-resort (ELR) program for Greece that would be implemented alongside the NGEU program. In this scenario, the Greek government, in collaboration with local governments and nonprofit institutions, would provide a minimum wage job—at an increased rate of €780/month—to anyone among the unemployed willing and able to work. With 100,000 ELR jobs created each quarter beginning in 2021Q3, the impact on the deficit would be modest, but real GDP would improve beyond both the baseline and NGEU-alone scenarios (see Figure 2).

[www.levyinstitute.org/pubs/gr\\_sa\\_5\\_21.pdf](http://www.levyinstitute.org/pubs/gr_sa_5_21.pdf)

**Figure 2 Greece: Real GDP under Alternative Scenarios (€ billions, 2015 prices)**



Source: ElStat and authors’ calculations

## Can Biden Build Back Better? Yes, If He Abandons Fiscal “Pay Fors”

YEVA NERSISYAN and L. RANDALL WRAY

Public Policy Brief No. 155, June 2021

As part of its proposals for investing in social and physical infrastructure, the Biden administration has signaled a return to a budget-neutral policymaking framework that has largely been set aside since the outbreak of the COVID-19 crisis. According to Yeva Nersisyan, Franklin and Marshall College, and Senior Scholar L. Randall Wray, not only is this budget-neutral framework and its focus on “pay fors” likely to face problems as a matter of legislative strategy, it is economically unnecessary. Moreover, Nersisyan and Wray argue that an a priori commitment to ensuring revenues keep pace with spending increases can defeat the goals internal to both the public investment and tax components of these plans. They do not argue that federal policymakers should ignore questions of budgeting, but that there is a better way of thinking about how to plan for large-scale public investments. In their view, as long as the central budgetary question remains “Does this plan increase the deficit?,” a host of critical issues will be left ignored, undermining the effectiveness of individual proposals and fiscal policymaking more generally.

Instead of matching an expenditure price tag with the revenue that can be raised, Nersisyan and Wray urge policymakers to evaluate spending and tax proposals on their own terms, according to the goals each is intended to meet. On the expenditure side, for instance, one of the motivations behind Biden’s physical infrastructure plan is to make progress in transitioning to a green economy. Nersisyan and Wray note, however, that the Biden plan falls short of what would be required for significant progress on this front. Their concern is that tethering the spending to tax increases means the former will be limited to the political feasibility of the latter.

On the tax side, they observe, there are a number of purposes one might want to achieve through tax policy changes, such as reducing income inequality, discouraging undesirable activities, or reducing private demand to head off inflationary pressures. In the pay-for game, however, “raising funds” becomes the central objective and, as Nersisyan and Wray illustrate, simply matching the spending number to the revenue number does not ensure any of these other purposes will be served



effectively. Budgetary offsets for new spending could be desirable if the economy were at full employment, they note; however, if tax policy is going to play a role in curbing inflation, then we would need to choose the appropriate instruments for this task. Nersisyan and Wray argue that the tax changes being proposed are poorly suited to relieving inflationary pressures. In this context, the types of tax increases—those that will free up real resources to be mobilized by some new public initiative—are more important than the total revenue number. They also stress that there are other proven means, beyond the tax system, of controlling inflationary pressures.

In this instance, the authors do not see an urgent case for budgetary offsets (or other measures) to control inflation related to Biden's public investment plans. In their view, recent price increases represent either temporary bottlenecks or bounce-backs from the price drops of 2020. And from a broader perspective, global structural changes mean the inflationary potential of US economic growth is far more muted than it used to be. In their estimation, the US economy is not approaching the limits of its potential output. Moreover, they stress that productive capacity can be increased with sufficient support for aggregate demand. That is, public investments in social and physical infrastructure make contributions to both the demand and supply sides of the economy—moving the economy closer to current productive potential, but also increasing future potential. Whichever impact is greater should guide policymakers' decisions around budgetary offsets. Serious budget planning around a proposal to increase public investment by 2 percent of GDP annually, which is what the Biden plan represents, would need to examine these dynamics in detail, not merely aim for a headline revenue target, they argue. [www.levyinstitute.org/pubs/ppb\\_155.pdf](http://www.levyinstitute.org/pubs/ppb_155.pdf)

### **Gender and Race in the Spotlight during the COVID-19 Pandemic: The Impact of the Emergency Benefit on Poverty and Extreme Poverty in Brazil**

LUIZA NASSIF-PIRES, LUÍSA CARDOSO, and ANA LUÍZA MATOS DE OLIVEIRA

Policy Note 2021/2

Research Scholar Luiza Nassif-Pires, Luísa Cardoso, Federal University of Minas Gerais, and Ana Luíza Matos de Oliveira,

FLACSO—Brazil, evaluate the extent to which Brazil's emergency benefit (EB) policy (Auxílio Emergencial in Portuguese) reduced rates of poverty and extreme poverty in that country during 2020. They provide a breakdown according to race and gender and simulate the expected impacts of a planned reduction in benefit levels for 2021. They find that the EB played a significant role in protecting the most vulnerable, particularly in the case of black women, and that the reduced benefit values approved for 2021 will increase poverty and widen racial and gender gaps.

Implemented in April 2020, the EB consisted of five installments of R\$600 and four installments of R\$300, with single mothers who were heads of household receiving double those amounts. After no additional transfers occurred from January to March 2021, and in the midst of new elections, the government approved an additional set of installments to begin that April. However, the EB levels were significantly reduced at that point: to R\$250 on average (varying with household composition).

The authors demonstrate that not only did the original version of the EB mitigate the pandemic's impoverishing impact (the fall in income due to the economic crisis), it actually reduced rates of poverty and extreme poverty to below their pre-pandemic levels. By contrast, they find the new (reduced) benefit levels will allow poverty and extreme poverty rates to rise above their pre-pandemic levels (4.1 percentage points and 2.5 percentage points above, respectively).

They also find that, with the 2020 version of the EB, poverty gaps in terms of gender and (to a lesser degree) race narrowed. At its full strength, the 2020 EB was able to eradicate the extreme poverty gender gap and practically eradicate the gender poverty gap in each of the racial groups the authors delineate. Nevertheless, their analysis reveals the persistence of racial poverty and extreme poverty gaps, and they argue that a racial perspective is key to analyzing poverty in Brazil. Moreover, their simulations illustrate that the decrease in EB payments will widen gender and race gaps, mainly due to the greater economic vulnerability of black women. Before the pandemic, poverty reached 33 percent of black women, 32 percent of black men, and 15 percent of white women and white men in Brazil. The scenario for 2021 leads to poverty rates of 38 percent, 36 percent, 19 percent, and 19 percent, respectively. The rate of extreme poverty before the crisis was 9.2 percent among black women, 8.9 percent among black men, 3.5 percent

among white women, and 3.4 percent among white men. With the emergency benefit values for 2021, extreme poverty rates remain well above those seen before the crisis: 12.3 percent, 11.6 percent, 5.6 percent, and 5.5 percent, respectively.

As a policy response, the authors advocate continuing the EB through the end of the pandemic and expanding state and local government assistance (effectively, complementary EBs) in order to offset the reduced value of the 2021 benefit.

[www.levyinstitute.org/pubs/pn\\_21\\_2.pdf](http://www.levyinstitute.org/pubs/pn_21_2.pdf)

## The Endogeneity-to-Demand of the National Emergency Utilization Rate

MICHALIS NIKIFOROS

Working Paper No. 989, June 2021

Research Scholar Michalis Nikiforos adds to the debate over whether utilization is endogenous to demand in the long run by examining the potential determinants of capacity utilization over the period 1989–2019.

Among the various measures of utilization, the one produced by the Federal Reserve Board (FRB) is often cited to defend the contention that utilization fluctuates around the same center of gravity for long periods and is therefore exogenous to demand. Nikiforos contends that this measure is stationary by construction and that its basis of estimating utilization under “normal and realistic conditions” ignores several of utilization’s determinants—such as capital intensity, relative prices of labor and capital, shift differentials, rhythmic variations in demand, and industry concentration—that would need to move in concert for utilization to remain as stationary as the FRB measure shows. However, Nikiforos observes that these factors moved in a direction that should have led to an increase in utilization rather than the demonstrated decrease over the period. Though the average workweek of capital (AWW) is often used as a measure of utilization that does capture such variations in demand, Nikiforos proposes that the national emergency utilization rate (NEUR), as published by the US Census Bureau, provides an engineering rather than economic definition of capacity utilization and is therefore more appropriate. Calculated as the ratio between actual and national emergency production levels, the NEUR, according to Nikiforos, avoids ambiguities present in other utilization

measures. Because of its concrete parameters and ability to capture important variations in the production process’s speed, Nikiforos asserts that it is superior to the AWW, which only accounts for the time plants are in use.

Plotting the FRB rate against the NEUR for the period under investigation, the author illustrates that while both show a decrease in utilization over the past 30 years, the NEUR displays a greater loss. Though the NEUR is definitionally higher than the FRB’s measure of full production capability and a certain change in actual output should therefore lead to a greater change in the FRB rate compared to the NEUR, the data exhibits the opposite pattern, confirming, says Nikiforos, the FRB rate’s inappropriateness for measuring the “normal” rate of utilization.

With this in mind, the author explores the above-mentioned structural factors that can also influence utilization, finding that with the exception of a slight positive influence from industrial concentration, they all moved in a direction that should correlate with an increase in utilization instead of the observed decrease. Nikiforos suggests that weak aggregate demand and the “secular stagnation” of the last 30 years are the most plausible drivers of the NEUR’s decrease, noting that the steepest declines coincided with periods of recession in 1991 and 2000–1, and the slowdown of 1995. Additionally, the decrease is compatible with investment’s stagnation over the period, further confirming the author’s contention that demand is endogenous to utilization. He suggests that these findings change the research focus from whether demand is stationary or (as he claims) not, to finding measures of utilization that can capture long-run variations. He proposes that future research engage in a sectoral analysis based on micro data to shed light on the factors that determine utilization and its decreasing trend in the modern era.

[http://www.levyinstitute.org/pubs/wp\\_989.pdf](http://www.levyinstitute.org/pubs/wp_989.pdf)



# Program: Monetary Policy and Financial Structure

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## Multifactor Keynesian Models of the Long-Term Interest Rate

Working Paper No. 991, July 2021

## A Keynesian Approach to Modeling the Long-Term Interest Rate

Working Paper No. 988, June 2021

TANWEER AKRAM

In his most recent investigations into the Keynesian approach to modeling the long-term interest rate, Tanweer Akram, Wells Fargo, offers a pair of papers presenting both modified and novel approaches to long-term interest rate models. Noting that existing benchmark models of the long-term interest rate in quantitative finance have neglected Keynes's insight that the short-term interest rate plays a crucial role in determining long-term rates, Akram fills this gap in the literature with his new models that incorporate the Keynesian approach while allowing other macroeconomic factors, such as the central bank's policy rate, inflation targets, and inflation expectations to have a role.

In both texts, Akram explains that Keynes rejected the mainstream loanable funds view—where interest rates are determined by the demand for and supply of funds and increased government debt ratios exert upward pressure on rates—in favor of one based on statistical findings for the United States and United Kingdom in the 1930s that demonstrated how a central bank's policy rate was the key indicator of the long-term interest rate on government bonds. According to the author, these factors also incorporate Keynes's conceptions about the influence of uncertainty, endogenous expectations, liquidity preferences, and animal spirits, suggesting that investors' actions also have a role in shaping long-term rates. Akram points to recent studies that back his contentions for the United States, United Kingdom, Japan, Canada, Australia, and the eurozone by demonstrating a Keynesian relationship between the short- and long-term interest rate on government bonds; the relationship seems to hold for developing economies as well, with studies for India, Brazil, and Mexico exhibiting similar patterns.

Applying these findings, in Working Paper No. 988, Akram modifies ten existing benchmark models to incorporate a Keynesian understanding of interest rate dynamics, adding a role for volatility and a Weiner process. In Working Paper No. 991, Akram constructs two multifactor models of the long-term interest rate, represented by stochastic differential equations to mathematically convey Keynes's insight. The first model is composed of three equations that consider the long-term interest rate, the short-term interest rate, the central bank's policy rate and inflation target, expected inflation, and a Weiner process. Model 2 comprises four equations and includes a role for financial market volatility and an exogenous shock.

Akram concludes both studies by advising that these models can translate Keynesian insights into specific functional forms for understanding interest rate dynamics and evaluating which specifications best capture the underlying processes. Because the short-term interest rate's influence over the long-term interest rate implies a country with monetary sovereignty can influence yields through monetary policy actions, Akram suggests extending the models to examine the effects of government debt and deficit ratios, market sentiment, exchange rates, and other relevant variables that can assist in policy formulation.

[http://www.levyinstitute.org/pubs/wp\\_991.pdf](http://www.levyinstitute.org/pubs/wp_991.pdf)

[http://www.levyinstitute.org/pubs/wp\\_988.pdf](http://www.levyinstitute.org/pubs/wp_988.pdf)

## The Souk Al-Manakh: The Anatomy of a Pure Price-Chasing Bubble

FRANK VENEROSO and MARK PASQUALI

Working Paper No. 987, March 2021

Informed by historical record and personal experiences in Kuwait in the early 1980s, Frank Veneroso and Mark Pasquali, Veneroso Associates, consider episodes in which the value of a broad subset of stocks becomes untethered from fundamentals, as speculators drive prices high enough to become what the authors call "pure price-chasing bubbles." Asserting that there have been only a handful of such events in global history, the authors suggest that current US stock market conditions echo those present in each prior occurrence.

Reflecting on the history of the US stock market, Veneroso and Pasquali contend that unfettered market access led to

supposed market efficiency, resulting in markets that were always priced right, until the late 1990s when the S&P and Nasdaq's price-earnings ratios accelerated faster than the broader market with little substance underlying their trajectory. The resulting dot-com bubble was, according to the authors, the first pure price-chasing bubble in the United States in that it was based on expectations rather than earnings, followed by the more widely felt global financial crisis, which was halted when the government stepped in as the lender of last resort. Veneroso and Pasquali argue that these bailouts fostered unrealistic expectations, spawning a decade-long bull market that by 2020 had grown as expensive as it was prior to the dot-com peak, and the COVID-19-induced contraction did not stop it from reaching new highs (though often masked in official sources), which, they say, will inevitably be followed by a decline.

To illustrate the mechanics of this present price-chasing episode, Veneroso draws on his experience with an over-the-counter market in Kuwait known as the Souk al-Manakh. Though small in reach, at its peak it was estimated to boast a market capitalization greater than London. Operating on behalf of the United Arab Emirates (UAE), who were considering establishing a similar market within their own borders, Veneroso's investigations into several of the 37 companies listed on the Souk al-Manakh generated more questions than answers, leading him to surmise that expectations alone were driving share prices. He also found a culture of moral hazard among the Souk al-Manakh's investors, fostered by an oil-rich and paternalistic government that financially supported its citizenry, giving rise to a market where implied annualized rates on informal margin loans (in the form of postdated checks) were as high as 100 percent while official rates were somewhere in the single digits. At the height of the market, a small group of speculators drove share prices higher and, as expected, the bubble he observed during his visit popped shortly after his departure, with consequences that are still playing out today. In a post-crash analysis of the market's trajectory, Veneroso concludes it typified the pure price-chasing phenomenon ignited under conditions of economic expansion and euphoric expectations that push share prices to new highs. Contrary to conventional wisdom, the turning point came with no perceptible cause: investments simply ceased, margin calls could not be met, and all but one of Kuwait's banks failed.

Comparing the Souk al-Manakh's story to US markets today, Veneroso and Pasquali note several worrisome similarities between the two, particularly an environment where official interest rates remain at historical lows and moral hazard is elevated. Though the economic underperformance in the US over the past decade stands out as one notable difference, they point to the expansion of private credit (which currently stands at massive levels that are, according to the authors, unrecognized in official estimates) over the same period that has steepened the market's price trajectory. Additionally, the speed of internet-age communication has increased the pace and scope of contagion, leading Veneroso and Pasquali to predict the next bubble will end with a faster and more-widespread crash than in past episodes.

[http://www.levyinstitute.org/pubs/wp\\_987.pdf](http://www.levyinstitute.org/pubs/wp_987.pdf)

## **Keynes's Theories of the Business Cycle: Evolution and Contemporary Relevance**

PABLO GABRIEL BORTZ

Working Paper No. 986, February 2021

Pablo Gabriel Bortz, Universidad Nacional de General San Martín, follows John Maynard Keynes's theory of the business cycle from his early writings culminating with the *General Theory* in the 1940s. Maintaining that Keynes's ideas about the driver of the fluctuations were ultimately the same, Bortz discusses what he considers the most important turning points in the evolution of Keynes's theory over the 30-year span of his investigation.

Beginning with Keynes's 1913 article, "How Far Are Bankers Responsible for the Alterations of Crisis and Depression," Bortz points out Keynes's dissatisfaction with existing business cycle theories, finding those based on the "real" economy no more sufficient than those with a monetary approach. Keynes lists several factors that he believed were driving the cycle, all of which were propagated through the financial system: problems of incentives, uncertainty, and moral hazard led to a disproportionate share of bank lending destined for investment in capital goods instead of production of consumption goods, increasing fragility systemwide. For Keynes, investment decisions based on expectations of future profitability—influenced by "fashion, advertisement, or purely irrational waves of

optimism or depression”— were amplified by financial practices and responsible for driving the boom phase of the business cycle.

Other early writings feature Keynes’s exploration of the orthodox notion of the quantity theory of money, which Bortz says he eventually rejected as the driver of interest rates. Keynes also criticized policy responses, particularly those enacted during the overinvestment phase, and suggested that tight monetary policy could provide perverse incentives, therefore investment should be disincentivized to attenuate the cycle. In five articles produced during the interwar period, Bortz writes that Keynes focused on the then-current conditions, where demobilization resulted in deflation and mass unemployment. It was also during this time that Bortz contends Keynes had formed a new position on the business cycle, though uncertainty and expectations still featured heavily as the fuel for cyclical fluctuations. To put a stop to the deflationary trends, Bortz says Keynes prescribed quick and decisive policy action to align investors’ expectations with the intended results rather than a protracted period of uncertainty.

By the time of the *Tract on Monetary Reform*’s publication in 1923, Keynes had witnessed Britain’s incomplete recovery from the depression of 1920–22, where the self-fulfilling expectations of inflation led to increased borrowing and investing, while deflationary expectations resulted in money hoarding. Using the Cambridge version of the quantity equation to explain how economic policy could counter these fluctuations, Keynes demonstrated that authorities could exercise enough control to attenuate the cycle. Bortz notes ideological changes in contemporaneous publications, notably two articles for *The Nation*, where Keynes states that it is too much saving and not enough investment that drives the cycle; declaring that “prosperity is cumulative,” he calls for a public investment to mobilize idle resources.

Keynes’s theories on the generation of the credit cycle are described in *The Treatise on Money*, published in 1930 after six years of writing. Recasting his previous arguments in terms of the saving–investment mechanism, Bortz claims that Keynes expressed his ideas through his two “fundamental equations” about the dynamics of consumption goods prices, investment goods prices, and the behavioral assumptions that drive the equations’ variables, finding that the credit cycle is most likely fueled by variations in the rate of investment (and expectations

of returns) rather than savings. Because of this, a monetary authority’s main instrument for controlling the cycle is the short-term interest rate, which in turn strongly influences the long-term interest rate and investment.

Keynes’s transition from the *Treatise on Money* to the *General Theory* is marked by two important ideas coming from the Harris Foundation lectures in the early 1930s. The first, says Bortz, is the recognition that a decrease in investment driven by an increase interest rates was behind the Great Depression; the second is his assertion that money is not neutral and it is the monetary character of the economy and its effect on long-period positions that drives fluctuations. In writing the *General Theory*, Keynes posits that the business cycle was not only the result of a change in the marginal efficiency of capital, but also “errors of optimism and pessimism” caused by low estimates of risk and disappointing investments, respectively, that become self-fulfilling through investors’ action, a situation Bortz notes is still present in today’s economies.

[http://www.levyinstitute.org/pubs/wp\\_986.pdf](http://www.levyinstitute.org/pubs/wp_986.pdf)

## Program: Economic Policy for the 21st Century

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### Why President Biden Should Eliminate Corporate Taxes to Build Back Better

EDWARD LANE and L. RANDALL WRAY

Policy Note 2021/3

President Biden has proposed pairing his American Jobs Plan with a set of tax increases that includes raising the corporate income tax. While noting that it is understandable why corporate tax hikes have become a politically useful device, Edward Lane, University at Albany, SUNY, and Senior Scholar L. Randall Wray argue that the downside of corporate taxes outweighs their benefits, and they propose an alternative.

Lane and Wray emphasize that while sovereign governments do not require revenue offsets to fund spending increases, taxes do serve multiple useful purposes, such as creating incentives to encourage/discourage certain behavior,

reducing inequality, and decreasing private spending in order to free up resources for government use. Lane and Wray examine the effectiveness of corporate tax hikes from the standpoint of their ability to reduce inequality and control potential inflation from the American Jobs Plan. By these two metrics, corporate taxes are ineffective in their view. While the incidence of corporate taxation (who pays) is unclear, the bulk of the burden is not likely falling on high-income Americans, they argue. If corporations can raise prices in response to corporate profits taxes—passing on the costs to customers—the taxes could be inflationary (and may not be progressive, depending on the products in question). If corporations can shift the costs backward in the form of lower wages or benefits for their workers, then the tax is largely regressive (depending on the firm). And even if the costs are passed on to shareholders in the form of lower dividends or stock price gains, the reduction in wealth inequality would not be significant, since the proportion of stock ownership held in individual household accounts is only around 25 percent. Moreover, since most shares are held by institutions or foreigners, a tax on shareholders would do little to control inflation.

Lane and Wray recommend the elimination of corporate taxes and outline a replacement centered on an annual personal tax on unrealized capital gains. The purpose of replacing the corporate tax in this way, in their view, should not be to replace lost revenue, but to address the potential for windfall gains deriving from the corporate tax's elimination. This would mainly be a matter of equity rather than inflation, they add (since those who would stand to gain from the windfall have a low propensity to consume). The goal would be to shift some of the tax burden to those who would benefit most from the elimination of corporate profits taxes.

With the elimination of corporate taxes, the authors observe, deductions would become irrelevant, efforts to establish a global minimum tax would be unnecessary, the desirability of investing in the United States would be enhanced, pass-through entities and corporate owners would be placed on an equal footing with wage labor (in terms of taxation), and corporate tax compliance costs would be eliminated. Moreover, Lane and Wray conclude, the elimination of corporate taxes would have less impact on tax revenue than many might imagine: in 2021, federal corporate tax expenditures (due to exemptions, deductions, special credits, and so on) are

expected to exceed federal corporate tax revenues. They add that if the elimination of corporate taxation is politically infeasible, they would recommend that corporations be allowed to deduct dividends and that their proposal to impose a market-to-market tax on unrealized capital gains be adopted (and the personal income tax on dividends be retained).

[www.levyinstitute.org/pubs/pn\\_21\\_3.pdf](http://www.levyinstitute.org/pubs/pn_21_3.pdf)

### **Ecological Fiscal Transfers and State-level Budgetary Spending in India: Analyzing the Flypaper Effects**

AMANDEEP KAUR, RANJAN KUMAR MOHANTY, LEKHA CHAKRABORTY, and DIVY RANGAN  
Working Paper No. 990, July 2021

Using panel data models, Research Associate Lekha Chakraborty, Amandeep Kaur and Divy Rangan, National Institute of Public Finance and Policy, and Ranjan Kumar Mohanty, Xavier Institute of Management, Bhubaneswar, analyze the “flypaper effects” of ecological fiscal transfers in India.

The flypaper effect in public finance assumes that “money sticks where it hits,” and therefore a government grant should increase the level of local public spending more than an equivalently sized increase in local income, leading to greater public spending. In India, fiscal decentralization places the responsibility of providing public services at the local level, therefore the authors investigate this situation with respect to environmental commitments, where competition between states incentivizes them to lower regulations to attract investment, with empirical evidence demonstrating that this has had negative effects, such as the creation of “pollution havens.” Though governments have tried to internalize these externalities through negotiations and fiscal instruments, the authors indicate it is unclear if they have had the intended effect.

A review of the literature confirms the existence of flypaper effects in India and elsewhere, with evidence demonstrating that intergovernmental transfers have a more substantial impact than income increases with regards to spending on public goods. The authors note that this phenomenon is counter to expectations and, while affected by both political and bureaucratic factors, its true underlying mechanisms remain a prominent part of the debate about the ultimate impact of

intergovernmental fiscal transfers. Evidence also suggests that a cut in transfers operates differently than an increase, which the authors say implies that spending is less sensitive to cuts than to increases, and the type of grant (conditional versus unconditional) may have an influence over the strength of the flypaper effects.

To encourage better environmental stewardship, beginning with the decisions implemented by the 14th Finance Commission in 2013, India incorporated an environmental variable in their tax transfer formula. The 15th Finance Commission (2021) increased this unconditional transfer based on a variable they called “dense forest cover,” defined as lands with a tree canopy of 70 percent or greater, as well as a conditional transfer tied to specific programs based on a state’s climate change commitments. Given these developments, the authors examine the data to see if any flypaper effects are evident in these transfers, leading local governments to spend more on environmental commitments.

Limiting their investigation to 28 states over the time period 2003–19, the authors use panel data on population, expenditure variables, state GDP, and forest cover from official sources to assess the flypaper effects of intergovernmental transfers when environmental considerations are included as part of the devolution process. Their findings indicate a positive correlation between the levels of forest cover (very dense, moderately dense, and dense) and tax devolution when major outliers are eliminated. Using state-level total expenditure, revenue expenditure, and capital expenditure on forests as dependent variables and total transfers to state governments and states’ own revenue as the main regressors, the authors report they do find evidence of significant flypaper effects for subnational ecological spending.

The authors call attention to the significant effects intergovernmental transfers have over total state-level public spending in India and note the increase in progressivity of such transfers since the 1st Finance Commission in 1951. Under directives from the current (15th) Finance Commission, fiscal transfers are based on factors such as area, income, population, and demographic performance. The addition of a forest and ecology-based indicator is, according to the authors, a forward-looking incentive and reward for past performance in maintaining forest cover and represents a positive step in India’s quest to reduce emissions over the next ten years.

[http://www.levyinstitute.org/pubs/wp\\_990.pdf](http://www.levyinstitute.org/pubs/wp_990.pdf)

## INSTITUTE NEWS

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### **29th Annual Minsky Conference Video and Audio Available Online**

Videos and audio from the 29th Annual Hyman P. Minsky Conference on the State of the US and World Economies: Prospects and Challenges for the US and Europe in an Emerging Post-Pandemic Recovery are now available online. The virtual conference was held May 5–6 and featured speakers from government, academia, financial institutions, and the media, as well as Levy Institute scholars. Visit <http://www.levyinstitute.org/news/hyman-p-minsky-conference-2021> to find out more.

### **Save the Date: Levy Institute Summer Seminar June 11–18, 2022**

The Levy Economics Institute of Bard College is pleased to announce it will be holding a summer seminar from June 11–June 18, 2022. Through lectures, hands-on workshops, and breakout groups, the seminar will provide an opportunity to engage with the theory and policy of Modern Money Theory (MMT) and the work of Institute Distinguished Scholars Hyman Minsky and Wynne Godley. Intended for those who are introducing themselves to these approaches as well as those who are looking to deepen their understanding, the seminar will be of particular interest to graduate students, recent graduates, and those at the beginning of their academic or professional careers.

More information will be forthcoming on the conference website at: <http://www.levyinstitute.org/news/summer-seminar-2022>

### **Senior Scholar L. Randall Wray Named 2022 Veblen–Commons Award Winner**

The Veblen–Commons Award, presented in recognition of significant contributions to evolutionary institutional economics, is the highest honor given annually by the Association for Evolutionary Economics (AFEE). The award, named after the founders of institutional economics, Thorstein Veblen and John R. Commons, has been given to Senior Scholar L. Randall Wray, whose research focus centers on providing a critique of orthodox monetary theory and policy, and the development of an alternative approach.



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Editors: Elizabeth Dunn and Michael Stephens

The *Summary* and other Levy Institute publications are available on the Institute's website.

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Inquiries regarding contributions could be sent to Dimitri B. Papadimitriou, President, Levy Economics Institute of Bard College, Blithewood, Annandale-on-Hudson, NY 12504-5000. Phone: 845-758-7700 Fax: 845-758-1149 E-mail: [info@levy.org](mailto:info@levy.org) Website: [levyinstitute.org](http://levyinstitute.org)



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