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JRCPPF News

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Finance, Inequality and Long-Run Growth

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The rapid rise of income and wealth inequality in the United States and other industrialized countries is at the center of many current policy debates. Academic researchers, notably Thomas Piketty in his best-selling *Capital in the Twenty-First Century*, have helped push these issues into the spotlight. At the same time, sluggish growth in the developed world has caused many to wonder whether we are confronting the possibility of "secular stagnation" – a period of persistently low growth and unemployment.

Are increasing inequality, the rise of debt, the fall in the real interest rate, and the recent slowdown in growth connected? What are the obstacles to long-term economic recovery? At the Julis-Rabinowitz Center for Public Policy and Finance's fourth annual conference, experts weighed in on these key questions. Their timely discussion is summarized here.

Understanding Inequality

Gabriel Zucman focused his presentation on wealth inequality in the U.S. He described a puzzle: while income inequality has risen sharply since the late 1970s, the Survey of Consumer Finances suggests that wealth concentration has not grown nearly as much. To solve this puzzle, Zucman and co-author developed an alternate method of measuring the distribution of wealth by capitalizing U.S. income tax data. Their new annual long-term data series shows dramatic increases since the late 1970s in the wealth share of the very top of the top 1% (particularly the top 0.1% – those with net wealth that exceeds $20 million). The key driver of rapidly increased wealth at the top is a surge in their income share, particularly

New methods of measuring wealth show a dramatic increase in the wealth share of the very top of the top 1%.

"Conferences like this one, and centers like the one it's convened in, are profoundly important. Economic ideas spur change and spur progress. When right, they make an important contribution. When wrong, they provide important clarification that ultimately proves to contribute to public policy."

Lawrence H. Summers
Harvard University

labor income. They find that income inequality has a snowballing effect on the distribution of wealth: top incomes are being saved at high rates (35%), pushing wealth concentration up; in turn, rising wealth leads to rising capital income concentration, which contributes to further increases in top income and wealth shares. The bottom 90%, on the other hand, have seen a sharp reduction in their wealth share since the 1980s, driven largely by a fall in their savings rate – which dipped to negative 8% at its lowest point in 2006. This may be the result of low growth in middle-class incomes. The real average wealth of the bottom 90% is no higher today than it was in 1986.

A recent IMF report, "Causes and Consequences of Income Inequality: A Global Perspective," calls rising income and wealth inequality "the defining challenge of our time."

Zucman concluded by arguing that the Survey of Consumer Finances has failed to adequately capture increases in wealth inequality, and that further research is needed to bridge the gap between micro data (like surveys and tax data) and macro aggregates.

Gabriel Zucman, London School of Economics

Benjamin Moll's presentation focused on economic models that might explain the spectacular rise of top income and wealth inequality in the U.S. Moll and co-authors find that standard growth models cannot account for the speed at which income inequality is currently escalating. In response, they developed a generalized random growth model that, departing from the standard model, allows for heterogeneity in mean earnings growth. This is consistent with "superstar effects," as well as with evidence that shows that the earnings (of lifetime income) of the top 0.1% grow by 25% per year between the ages 25 and 35, while the earnings of the bottom 99% grow at only 3% per year during the same life span segment. Moll's model succeeds where standard models fail, faithfully tracking the evolution of income at the upper tail of income distribution.

According to Moll, Pikketty's "r-g" model cannot generate transitions at the upper tail of income and wealth distribution at a speed that accounts for today's rapid surges in inequality.

Moll and co-authors also developed a model to study top wealth inequality. Their initial findings suggest Piketty's "r-g" (which asserts that increases in wealth are due to differences in the average rate of return on wealth relative to the rate of growth of the economy) cannot generate fast enough transitions at the upper tail of wealth distribution.

Moll's research aims to capture wealth dynamics by going beyond "r-g," allowing for higher rates of return, or higher savings rates, among the super-wealthy (top 0.1%) relative to the wealthy (top 1%).

Benjamin Moll, Princeton University

According to **David Dorn**, the shocks caused by Chinese export competition may also help explain the story behind U.S. unemployment and income inequality. Jobs in U.S. manufacturing have taken an obvious hit, and a number of recent studies have already examined this trend. Dorn and co-authors expanded upon this research and discovered links to even more significant job losses elsewhere in the economy.

Piloting a new method for measuring indirect trade exposure, they find the downstream shocks undeniable. Millions of jobs have also been lost in linked industries – industries that sell to manufacturers that are now buying cheaper Chinese imports, for example, or large swaths of local businesses that are no longer patronized by factory workers after they lose their jobs. Alongside the impact of Chinese export competition, Dorn allowed that another piece of the U.S. inequality puzzle is the apparent limited mobility of America's undereducated and underemployed – among them, men in particular – who are simply not connecting to job opportunities elsewhere in our economy at a rate that would positively offset these negative shocks.

America's under-educated and underemployed are not connecting to job opportunities elsewhere in the economy at a rate that would positively offset the negative shocks of Chinese export competition.

David Dorn, University of Zurich

Òscar Jordà focused on the connections between monetary policy, mortgage activity, and housing prices, and the worrisome trend of increasingly leveraged households. Jordà and co-authors combined two new datasets on house prices and real estate lending spanning 140 years in 14 advanced economies. This data shows that the ratio of bank lending to GDP was very stable up to WWII, but has increased dramatically since, with about 70% of this massive increase going towards real estate and household lending.

As emphasized by Atif Mian and Amir Sufi in "House of Debt," U.S. households with the least wealth are currently bearing the highest credit risks. Jordà calls this troubling phenomenon the "democratization of leverage."

Òscar Jordà, Federal Reserve Bank of San Francisco

Using novel identification and econometric methods, Jordà and co-authors find that a decline in short-term interest rates indeed has a substantial impact on mortgage activity and house prices. In countries where this has played out most strikingly, notably the U.S., Spain, Ireland, and Sweden, households that have the least wealth are bearing the highest credit risk, with disastrous consequences that have further broadened the inequality gap. Jordà argues that it may be time for many governments to rethink the subsidization of home ownership. In Germany, for example, where the tax code favors renters over owners, mortgage activity and the rate of homeownership have remained remarkably stable since WWII. For most other advanced economies, however, the new era of "democratized leverage" has spelled trouble. Policy makers face a dilemma. Yes, low interest rates may stimulate the economy, but they may also stoke the next housing boom and increase the likelihood of financial crisis.

Reflections on Secular Stagnation

Gauti Eggertsson began the discussion of "secular stagnation" by reflecting on the work of economist Alvin Hansen, who first coined the term during a presidential address to the American Economic Society in 1938. Influenced by the depth and duration of the economic hardship wrought by the Great Depression, Hansen wondered if the economy might have entered a period of permanent depression, brought about by an aging population and lack of investment opportunities. Lawrence Summers revived this hypothesis in a 2013 speech, arguing that the developed world may now be entering a period in which the natural interest rate – the rate of interest that equilibrates savings and investment at full employment – is persistently negative.

Alvin Hansen first coined the term "secular stagnation" in 1938; Lawrence Summers revived its use in 2013.

Gauti Eggertsson, Brown University

Eggertsson and co-author have formalized the secular stagnation hypothesis by developing an overlapping generations model in which the savings decisions of individuals vary over their life spans (the young borrow, the middle-age

An increase in the Central Bank's inflation target and an expansion of government spending are effective policies in an economy mired in secular stagnation.

save, and the old spend). Any shock that reduces the demand for savings of the young, or increases the supply of savings of the middle-age, can result in a negative natural interest rate. Four such shocks are highlighted: deleveraging, a slowdown in population growth, an increase in income inequality, and a fall in the relative price of investment – all of which have occurred in the U.S. over the last decade. Eggertsson suggests two possible policy solutions to an economy confronting a negative natural interest rate: an increase in the Central Bank's inflation target and an expansion in government spending.

Emmanuel Farhi's presentation was also concerned with secular stagnation, but focused in particular on an economic quandary that he calls the "safety trap." Farhi began by offering four stylized facts:

The global supply of safe assets has decreased dramatically, and the risk-free interest rate has been stuck at zero for a number of years.

First, there has been a dramatic contraction in the world's supply of safe assets, which has fallen from 37% of global GDP prior to the Great Recession in 2007 to 18% in 2011, reflecting that many assets backed by residential land and periphery sovereign debt are no longer perceived as safe. *Second*, the short-term risk-free interest rate, which controls the price of these assets, has been stuck at zero for a number of years. *Third*, the return on risky assets has been high. And *fourth*, this has all occurred within a climate of substantial unemployment.

Farhi and co-author constructed a model that incorporates all four of these facts. Like Eggertsson, Farhi employs an overlapping generations structure, but with distinguishing features, such as two types of agents: the extremely risk-averse, who demand safe assets, and the risk-neutral, who only care about an asset's rate of return. He also allows for two types of assets: safe and risky. Output is demand-determined and nominal, and financial frictions are acknowledged.

In this model, secular stagnation can result from a contraction in the supply of safe assets that causes the safe interest rate to fall to zero. Once the safe rate hits the zero lower bound, it can no longer bring demand and supply for safe assets into balance, and instead equilibrium in the safe asset market is restored through a drop in output, which then reduces the demand for safe assets. The safety trap can be very persistent, even permanent.

Emmanuel Farhi, Harvard University

Farhi analyzes several policies that could potentially free the economy from the safety trap. He finds that issuing public debt, swapping private risky assets for public debt (QE), and increasing the inflation target may stimulate aggregate demand and output, while forward guidance – the promise of low interest rates in the future – is ineffective. He highlights the potentially adverse effects of regulatory policies that increase the demand for safe assets, and argues for the consideration of tax policies that increase the demand for investment, and redistribution policies that may transfer wealth from individuals that demand safe assets to those that are risk neutral.

Farhi referenced Ben Bernanke's recent comments that QE seems "at least somewhat effective" in practice, but not in theory. According to Farhi's research, QE is indeed effective, while forward guidance is not.

The Keynote Address

Are we witnessing the emergence of secular stagnation? **Lawrence Summers** answered in the affirmative during the conference's keynote address. Summers began by challenging the dominant representation of the financial crisis – a "financial network failure theory" – arguing that it is inconsistent with the behavior of the economy. If the crisis was simply a disruption of financial services, akin to a power failure, then the economy should have recovered quickly, with production surpassing its previous level once "power" (financial services) was restored. This is not, of course, what is happening.

If the recent financial crisis was simply a disruption of financial services, then the economy should have recovered quickly; this is not, of course, what is happening.

Economic growth in the United States has been anemic at best, and output remains well below potential. Summers further noted that growth levels prior to 2007 were also far from spectacular, despite being fueled by "the worst erosion of credit standards, and the biggest bubble, since the Second World War." According to Summers, conventional business cycle theories cannot account for the macroeconomic problems of this age – but the stagnation hypothesis can.

Summers cited the chronically declining world real interest rates – which have steadily fallen from above 4 percent in the mid-80s to close to zero in recent years – as evidence that secular stagnation has indeed taken root as a global phenomenon.

Low nominal and real interest rates may undermine financial stability by encouraging imprudent risk-taking.

He listed several economic trends that support the stagnation hypothesis of excess savings over investment. These include: slower growth in the labor force and lower costs of capital per worker (due in large part to technological advances), the large cash positions held by leading companies (such as Apple), decreases in the amount of capital required to launch new businesses (such as Snapchat), rising foreign reserve accumulation, the increased demand for safe assets, and rising inequality and corporate profit share (whereby more money is going to the people with the highest propensity to save).

What policies can get us out of this rut? Summers offers three possibilities.

First, structural reforms could raise the demand for private investment. Even though these reforms have so far yielded little fruit in Japan and Europe, they may be a key step on the path to positive growth.

Second, monetary policy could increase the rate of inflation, and thereby lower the real interest rate. This is not without potential pitfalls, as it is difficult to maintain stable single digit inflation without getting into higher price instability. Also, very low real interest rates challenge allocative efficiency, as they may encourage investments that have negative returns, undermine stability by promoting excessive risk-taking, and weaken loan quality if lenders neglect their loan monitoring functions. The scope for monetary policy may be limited, but it must be considered.

Summers offers three possible responses: structural reforms to raise demand for private investment, monetary policy that could increase the rate of inflation, and expansionary fiscal policy, particularly infrastructure investment.

Finally, Summers makes a strong case for expansionary fiscal policy, particularly infrastructure investment. He referenced the 2014 IMF World Economic Outlook, which finds that public investments are likely to significantly reduce debt-to-GDP ratios in countries where interest rates are near the zero lower bound. This is because increased economic growth strengthens government revenues and long-run economic potential. Unfortunately, this has not been the case in the U.S. – our share of public investment in GDP, adjusting for depreciation, is zero.

Summers concluded that "we are likely heading into a world where the real interest rate is going to be substantially lower than most of us have been accustomed to," and significant policy changes are needed to stimulate economic recovery through more appropriate levels of savings and investment.

In Conclusion

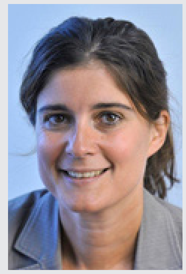
A recent IMF report called rising income and wealth inequality "the defining challenge of our time." Summers has stated that secular stagnation may well be "the most profound macroeconomic challenge of the next 20 years." The fourth annual conference of the Julis-Rabinowitz Center for Public Policy and Finance broadened our understanding of these critical issues.

Presenters shared convincing new evidence that there is not only a widening income gap, but also a dramatically expanding wealth gap, particularly at the very top. The bottom 90%, on the other hand, have stagnant wealth and incomes battered by export competition from China; they also continue to be highly levered and bear the highest credit risks.

At the macro level, Summers noted that rising inequality means more money in the hands of people with a high propensity to save, leading to excess savings over investment – the hallmark of secular stagnation. The chronic decline in real interest rates, weak growth, and the dearth of safe assets also support the secular stagnation hypothesis.

The conference highlighted alternative policies that could pull the economy out of this slump; the consensus was that, in a zero-bound environment, the power of conventional monetary policy is limited. Setting a higher inflation target is a potentially effective weapon at the disposal of the Central Bank, although this approach is not without peril.

The most promising approach to generating faster growth is increased government spending, particularly in infrastructure, followed by structural and regulatory reforms that encourage private investment and reduce the demand for safe assets. Now is the time to put our best research into practice, in order to nurse the global economy back to health and stave off the grim prospect of permanent depression.



"I enjoyed the diversity of the approaches, both theoretical and based on novel data.

The conference gave a fascinating overview of our current understanding and what remains to be investigated."

Anne-Laure Delatte
Centre National de la Recherche Scientifique,
The Center for Economic and Policy Research

The 5th Annual Conference *of the* Julis-Rabinowitz Center for Public Policy & Finance

February 18, 2016

Financial Innovation

What are the macroeconomic and policy implications of new markets and instruments? Can financial innovation make markets more efficient, or does it increase financial instability? Together we will take a closer look at mortgage design, sovereign debt design, and bank debt design (such as cocos and other derivatives), among other topics.

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