

Wealth and income inequality in the United States has widened over recent decades. Federal Reserve policymakers are beginning to look into the implications of inequality for monetary policy, and we share some of their views.

Trends in wealth and income inequality have been discussed in economic literature and public discourse for some time, but they made a pronounced leap into public view in recent years. The Occupy movements that sprung up in 2011 greatly invigorated the conversation, as did the 2014 publication of the English translation of French economist Thomas Piketty's popular *Capital in the Twenty-First Century*.

The topic has also been receiving consideration from some Fed policymakers, who are beginning to look into the implications of inequality in the United States for monetary policy. On April 13, 2013, for example, Sarah Bloom Raskin, then a member of the Board of Governors, addressed the question of whether rising inequality contributed in some way to the 2007–09 recession ("Aspects of Inequality in the Recent Business Cycle"). And on October 17, 2014, Federal Reserve Chair Janet Yellen summarized some research on economic opportunity and mobility in a speech she made at the Boston Fed ("Perspectives on Inequality and Opportunity from the Survey of Consumer Finances").

In the spring of 2014, the Council of Economic Policies and the Atlanta Fed organized a Workshop on Monetary Policy and Inequality, bringing together researchers who have begun to explore potential connections between inequality and monetary policy. A presentation by Simon Yannick and Fouda Ekobena of the University of Yaounde suggested a link between quantitative easing and poverty relief.

However, because research in income inequality and its monetary policy implications is still in a very early stage, economists and policymakers have drawn few conclusions about the role of monetary policy with regard to inequality. Despite not having a full body of research on the topic, researchers are exploring methods for mitigating the trends in income and wealth inequality.

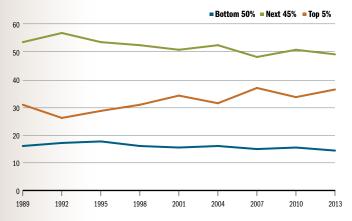
In this article, we look at trends in inequality, highlighting some of the views policymakers hold regarding future economic impact and how potential risks might be reduced.

Income and wealth inequality

Researchers have generally deconstructed inequality into the separate but related topics of income, wealth, consumption, and opportunity. Income and wealth inequality, in particular, have received the most attention and appear to have achieved something of a consensus among economists with regard to their recent trends.

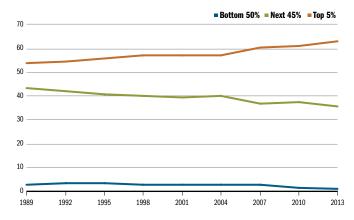
When Yellen spoke last October, she cited research from the Institute for Research on Poverty and the Federal Reserve Board suggesting that the distribution of income and wealth in

Chart 1
Income Share by Income Group



Source: Board of Governors of the Federal Reserve System, Survey of Consumer Finance

Chart 2
Net Worth Share by Net Worth Group



Source: Board of Governors of the Federal Reserve System, Survey of Consumer Finance

the United States—as well as in other advanced economies—has widened steadily for the last several decades. Charts 1 and 2 (from Yellen's speech) illustrate the increasing shares of income and wealth to the top 5 percent of households.

The trend abated somewhat during the Great Recession because of the larger wealth losses for those at the top of the distribution, but it resumed with the recovery. Labor market recovery and wage growth have been stubbornly slow, which has disproportionately affected those toward the lower end of the distribution. Home prices have yet to fully recover, also a hindrance that's more pronounced for those lower in the distribution, as their homes are their primary assets. Meanwhile, new stock market highs continue to unevenly benefit those on the upper end of the distribution, as they tend to hold stocks as a larger percentage of their assets. Chart 3 (also from Yellen's presentation) illustrates this point.

Yellen summarized these trends as "significant income and wealth gains for those at the very top and stagnant living standards for the majority," and said that "the extent of and continuing increase in inequality in the United States greatly concern me." Calling out the incompatibility between these trends and the value Americans place on opportunity, she touched on ways to increase equality going forward. We will discuss Yellen's broad prescriptions later.

Of course, increases in income and wealth inequality do not necessarily reflect declines in living standards for those at the lower end of the distribution. As Yellen observed, "there have been some times of relative prosperity when income has grown for most households but inequality widened because the gains were proportionally larger for those at the top." In this scenario,

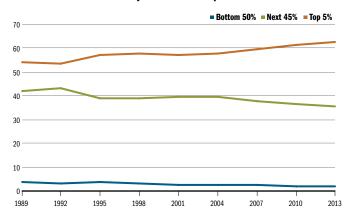
in which economic growth appears to lift all boats, inequality may not be as great a concern. But when inequality widens because of stagnant or declining income and wealth positions for most individuals, it becomes more problematic.

So what causes these diverging outcomes? A May 2014 Science magazine article by David Autor, a Massachusetts Institute of Technology economics professor, suggests that disparities in educational attainment are the primary cause of income inequality. In fact, "about two-thirds of the overall rise of earnings [inequality] between 1980 and 2005 [can be] accounted for by the increased premium associated with schooling in general and postsecondary education in particular," wrote Autor. In addition, the dynamics between the supply and demand for skills may provide insight into increases and decreases in the premium paid for higher-skilled labor over time—"specifically, why the earnings gap between college and high school graduates has more than doubled in the United States over the past three decades," Autor said. Steven Kaplan and Joshua Rauh stated a similar position in the Summer 2013 issue of Journal of Economic Perspectives when they wrote that "skillbiased technological change, greater scale, and their interaction" have resulted in higher incomes for higher-skilled workers.

But it's not simply the rise in income for top earners that has contributed to income inequality—it's also the decline in income for lower earners. In his *Science* article, Autor reported on some potential contributors to the decline in real wages among less educated workers, including:

The decades-long decline in the real value of the U.S. minimum wage, the sharp drops in non-college employment opportunities in production, clerical, and administrative support positions stemming from automation, the steep

Chart 3 **Share of All Financial Assets by Net Worth Group**



Source: Board of Governors of the Federal Reserve System, Survey of Consumer Finance

rise in international competition from the developing world, the secularly declining membership and bargaining power of U.S. labor unions, and the successive enactment of multiple reductions in top federal marginal tax rates.

Impact on the outlook

As to the economic implications of income inequality, former Governor Raskin, in her 2013 speech, put it like this:

> Intuitively, one might assume that the growing concentration of income at the top could lead to less consumer spending and aggregate demand, as wealthier households tend to save more of their additional income than others. However, there is no definitive research indicating that these income disparities show mixed results on the question of whether there are stable differences in the marginal propensity to consume across households with different incomes.

She went on to consider the effects of income inequality on gross domestic product:

> More generally, the evidence is equivocal as to whether there is an empirical relationship between higher income inequality and reduced aggregate demand. In my view, understanding the links between greater concentrations of income, variation in spending patterns throughout the income distribution, and the effect of that variation on aggregate consumption—and, ultimately, growth—requires more exploration.

Of course, it is not necessarily the direct economic effects of inequality that most concern policymakers, but rather the impact on social mobility. As Yellen described:

To the extent that opportunity itself is enhanced by access to economic resources, inequality of outcomes can exacerbate inequality of opportunity, thereby perpetuating a trend of increasing inequality. Such a link is suggested by the "Great Gatsby Curve," the finding that, among advanced economies, greater income inequality is associated with diminished intergenerational mobility.

How can these effects be mitigated? Yellen suggested several areas that could influence these trends, including the need to ensure equal access to quality early childhood education. She cited research demonstrating that "children from lower-income households who get good-quality pre-kindergarten education are more likely to graduate from high school and attend college as well as hold a job and have higher earnings, and they are less likely to be incarcerated or receive public assistance."

Access to affordable postsecondary education was another area Yellen mentioned. As we discussed earlier, higher levels of educational attainment can result in significant wage premiums. Although education costs continue to rise, most people can still benefit from a college degree. New York Fed economists Jaison Abel and Richard Deitz estimate that the annual earnings of fulltime workers with a four-year bachelor's degree are 79 percent higher than the earnings of the median full-time worker with only a high school diploma. The wage premium increases more for those with a graduate degree.

Yellen suggested invigorating new business formation as yet another potential method for curbing the impacts of inequality. The wealth generated through business ownership for those lower in the income distribution was found to be a significant share of their total assets, although only a small percentage of households in the bottom 50 percent "hold equity in a private business," according to Yellen. The rate of business creation has declined, which some research suggests could slow the pace of productivity, real wage growth, and employment.

Of course, defining opportunity and determining how it might be measured are important first steps to ensuring its existence. Some researchers use the term *mobility* in place of opportunity, and the field of mobility research is pursuing answers to these questions. This line of research will undoubtedly contribute to further policy prescriptions that may blunt negative impacts of income and wealth inequality.

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