ISSUE BRIEF

June 14, 2013

RISING INCOME INEQUALITY AND THE ROLE OF SHIFTING MARKET-INCOME DISTRIBUTION, TAX BURDENS, AND TAX RATES

BY ANDREW FIELDHOUSE

In the decades following World War II, the United States experienced robust economic growth, and the gains were shared fairly equally across the income distribution. But this era of shared prosperity came to an end in the 1970s, and since then a sharp divergence in the distribution and growth of market-based income has skewed gains toward the very top of the income distribution and away from the bottom (Bivens 2011).

Income inequality in the United States—already well above that experienced in other advanced economies—has surpassed Gilded Age levels, and the Great Recession and ongoing jobs crisis will exacerbate this trend until full employment is restored (Bivens, Fieldhouse, and Shierholz 2013). While market forces are the primary driver of rising inequality, recent economic research suggests that tax policy has contributed as well, both by exacerbating *after-tax* income inequality since the late 1970s and by spurring a shift of *pretax* income toward high-income households. To be sure, government policy has surely contributed to inequality growth through other, more hard to quantify channels: policies

related to labor protections, collective bargaining, minimum wage erosion, and trade—or lack thereof, what political scientists Jacob Hacker and Paul Pierson refer to as "political drift" (Hacker and Pierson 2011).[1]

But to the degree that policymakers are interested in pushing back against the growth of inequality, it is critical to understand the impact and scope of tax policy, one of the more concrete policy levers affecting inequality.

This paper reviews empirical trends in pre- and post-tax income inequality since 1979 and summarizes recent empirical and theoretical research on the role of tax policy in exacerbating market-based income inequality. It finds that increasing top marginal tax rates could yield potentially large results in slowing the growth of income inequality, and as shown in Fieldhouse (2013a), do so *without* substantially reducing productive economic activity:

- Market-based income inequality, as measured by the "Gini" index,[2] rose 23.2 percent between 1979 and 2007, while post-tax, post-transfer inequality rose 33.2 percent, implying that roughly 30 percent of the rise in post-tax, post-transfer inequality is attributable to erosions in the redistributive nature of tax and budget policy.
- The federal tax and transfer system reduced the Gini index of income inequality by 17.1 percent in 2007, down from a 23.4 percent reduction in in 1979.
- Ignoring transfers, the federal tax system lowered the Gini index by 6.7 percent in 2007, down from 9.9 percent in 1979. This means that 3.6 percent of the overall rise in post-tax, post-transfer inequality since 1979, as measured by the Gini index, is due to the diminished role of the federal tax system in reducing inequality.
- Tax and transfer policy has exacerbated a decline in market-based income share for the lower two-fifths of households by income since 1979. In 2007 the federal tax and transfer system boosted comprehensive income for the bottom income fifth by 28.3 percent, down from 37.2 percent in 1979 (Mishel et al. 2012).
- The rising share of investment income—heavily concentrated at the top of the income distribution—at the expense of labor income explains much of the rise in income inequality in recent decades. Roughly one-third of the rise in the total share of income accruing to the top 1 percent of households, which more than doubled from 9.6 percent in 1979 to 20 percent in 2007, is attributable to the shift from labor income to capital income (Mishel et al. 2012). Increasingly preferential tax treatment of capital income over this period almost certainly played a role in this shift.
- Reductions in marginal tax rates, both for capital gains and ordinary income, have statistically significant relationships with rising income shares of the top 0.1 percent and 0.01 percent of households, as well as the decline in labor income as a share of total income (Hungerford 2012).
- A one percent increase in taxes would have reduced the Gini index of inequality by 0.5 percent in 2006, up an order of magnitude from a 0.04 percent reduction in 1991, everything else being equal (Hungerford 2013). This large difference implies substantially increased scope for tax policy to push back against income inequality today.
- Research suggests that the post-World War II reduction in top marginal income tax rates has encouraged "rent seeking" behavior by executives and managers to bargain a higher share of total income, at the expense of other workers' wages (Piketty, Saez, and Stantcheva 2011). If this is the case, then there could be scope for using tax policy to push back against widening *market-based* income inequality growth.
- Time series regression analysis for the United States as well as cross-country comparisons suggest that a substantial portion of the behavioral response to top tax rate cuts reflects this zero-sum, nonproduct-

ive shift of income from nonsupervisory workers to managers and executives. If this is the case, then raising top marginal tax rates could yield large reductions in income inequality growth *without* substantially reducing productive economic activity (Piketty, Saez, and Stantcheva 2011).

Trends in market-based inequality

Between 1947 and 1979, within each family income quintile average annual income grew more than 2 percent, with the largest average gains of 2.5 percent accruing to the bottom fifth of households.[3] The top 5 percent of households by income experienced slightly smaller average gains of 1.9 percent. But between 1979 and 2007, the top 5 percent saw average annual income growth of 2 percent, compared with 0.6 percent growth for the middle fifth of households and zero growth for the bottom fifth.[4] Looking at cash, market-based income (defined as excluding noncash income and government transfers), the top 5 percent of tax units by income captured 80.9 percent of average income growth between 1979 and 2007 (Mishel et al. 2012).[5]

The top 1 percent pulling away

Income growth has also become grossly unequal *within* the top 5 percent, with the distribution of market income most heavily concentrated within the top 1 percent of households by income. Between 1979 and 2007, real income rose cumulatively by 240.5 percent among the top 1 percent of households by comprehensive income (which includes government transfers and employer-provided benefits), versus 71 percent for the 95th–99th income percentiles, 55.3 percent for the 90th–95th percentiles, and 40.6 percent for the 80th–90th percentiles. This compares with cumulative income growth of just 19.2 percent for the middle fifth and 10.8 percent for the bottom fifth of households.

Congressional Budget Office (CBO) data measuring comprehensive household income show that the top 1 percent of households captured 38.3 percent of total income growth between 1979 and 2007, more than the collective income gains of the bottom 90 percent of earners (36.9 percent).

The role of capital income

This trend of lopsided income growth is true of both labor income (i.e., wages and salaries) as well as broader measures that include investment income—capital gains, dividends, and business income from S corporations and partnerships. And the rise of capital income as a share of total income—at the expense of labor income—has greatly contributed to the rising income share of the top 1 percent of households by income. Capital income is heavily concentrated at the top of the income distribution, with roughly 75 percent of the benefit of the preferential rates on long-term capital gains and qualified dividends accruing to the top 1 percent of households ranked by income (Toder and Baneman 2012).[6]

The share of overall income (as opposed to income *growth*) accruing to the top 1 percent of earners rose from 9.6 percent in 1979 to 20 percent in 2007; of this 10.4 percentage point increase, 3.4 percentage points, or roughly one-third of the increased share, would not have occurred without the shift toward capital income away from labor income (Mishel et al. 2012).

The figures in this paper are available in an interactive format on epi.org. Users can obtain specific data points by hovering a cursor over a line or bar, view the figure as a data table, and copy data into Excel.

Equalizing effects of the tax and transfer system?

During the period from 1979 to 2007, government tax and transfer policy did not effectively push back against this sharp market-based rise in inequality, and by many measures the tax and transfer system has actually exacerbated pretax inequality trends, creating even less equitable growth in post-tax, post-transfer income.

Changes in post-tax, post-transfer income shares generally track changes in market income shares.[7] CBO data for the post-1979 period show that both market income and post-tax, post-transfer income shares have risen for the top 5 percent of households and fallen for the bottom 95 percent of households (Mishel et al. 2012). For the top 1 percent of households, a 9.7 percentage-point rise in market income share is closely tracked by a 9.6 percentage-point rise in post-tax, post-transfer income share. For the 40th–95th income percentiles, changes in the tax and transfer system have, on average, cushioned the declining shares of market income, whereas post-tax, post-transfer income shares have fallen by even more than market-based income shares for households in the bottom two-fifths of the income distribution.

That changes in post-tax, post-transfer income shares are driven, at least in direction, by changes in market income suggests that meaningfully curbing inequality growth would require more than increasing the progressivity of tax and budget policy; policies would need to directly or indirectly slow the rising share of market-based income accruing to the top 1 percent of households.

Accounting for the effects of taxes and transfers, U.S. income inequality, as measured by the Gini index, rose 33.2 percent between 1979 and 2007 (see **Figure A**). In terms of only market income the index rose 23.2 percent, meaning that roughly 30 percent of the rise in post-tax, post-transfer inequality between 1979 and 2007 can be attributed to changes in the redistributive nature of tax and budget policy. It is still the case, however, that shifts in the market distribution of income are the primary factors driving the rise in inequality.

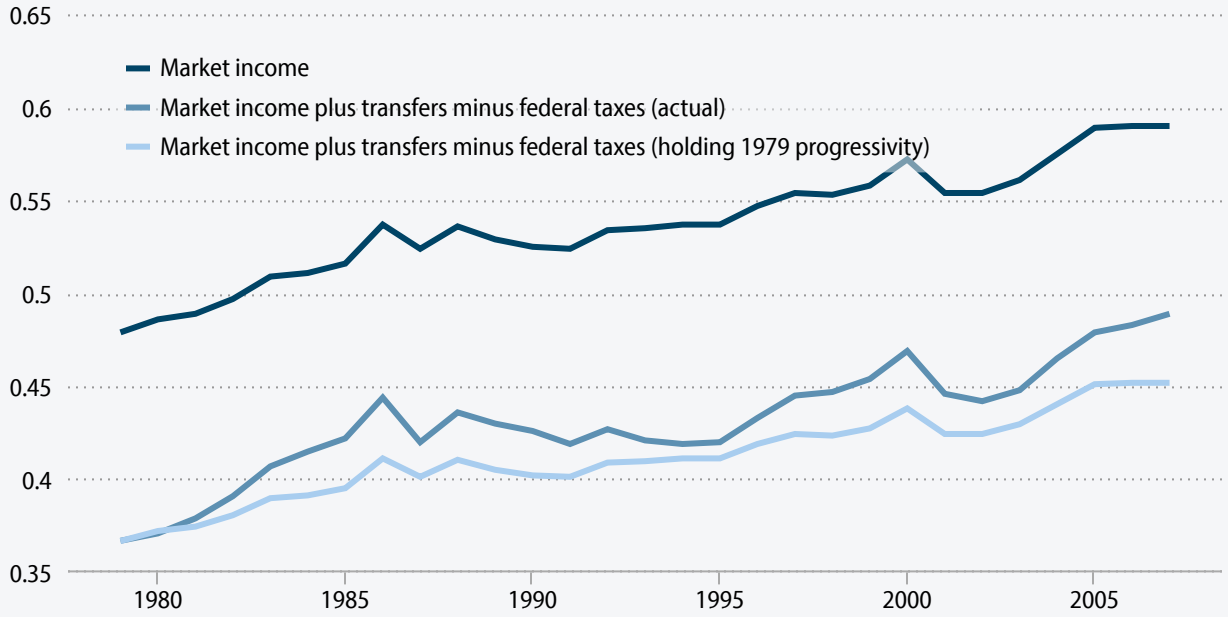
On net, the federal tax and transfer system reduced the Gini index by 17.1 percent in 2007, down from a 23.4 percent reduction in 1979. CBO data show that the tax and transfer system had less of a tempering effect on inequality, as measured by the Gini index, in 2007 than in any other year from 1979 to 2007 (see **Figure B**). Again by broad measures, the federal tax and transfer system offers less of an equalizing effect on the distribution of income than it did in the late 1970s.

Government transfers, which account for nearly two-thirds of the total reduction in inequality from the tax and transfer system, exerted an 11.2 percent reduction in the Gini index in 2007, the smallest relative reduction over this period, down from 15.0 percent in 1979. In itself, the decline of transfer progressivity accounts for 4.5 percent of the overall rise in inequality, as measured by the Gini index, since 1979. In terms of tax policy, the federal tax system lowered the Gini index by 6.7 percent in 2007, down from 9.9 percent in 1979. The decline of tax progressivity singlehandedly accounts for 3.6 percent of the overall rise in inequality, as measured by the Gini index, since 1979. The net effect of declining tax and transfer system progressivity (including interaction effects) was an 8.2 percent increase in the post-tax, post-transfer Gini index, relative to holding the equalizing effects fixed from 1979.

While income tax cuts and expanded tax preferences for capital income since 1979 assuredly made the tax code less progressive, the progressive income tax can have an offsetting equalizing effect on after-tax inequality as incomes—particularly at the top of the income distribution—rise faster than the inflation adjustments to tax brackets, the phenomenon referred to as "bracket creep" (Hungerford 2013). Thus, the 3.6 percent increase in the post-tax, post-transfer Gini index relative to holding the equalizing effects fixed from 1979 is the net effect of deliberate and on-net regressive tax policy changes less

FIGURE A VIEW INTERACTIVE *on epi.org*

Income inequality (as measured by Gini index), by type of income measured, 1979–2007



Note: The Gini index is a commonly used measure of inequality, ranging from 0 (perfectly equitable income distribution) to 1 (perfectly inequitable income distribution).

Source: Author's analysis of CBO (2011)

ECONOMIC POLICY INSTITUTE

the offsetting effects of bracket creep spurred largely by inequality growth.

Perhaps the greatest opportunity for tax policy to reduce post-tax, post-transfer income inequality is for the lower two-fifths of households by income, for whom tax and transfer policy has exacerbated a decline in market-based income share since 1979. Overall, the federal tax and transfer system boosted comprehensive income for the bottom income fifth by 28.3 percent in 2007, down from 37.2 percent in 1979 (Mishel et al. 2012).

The relevance of tax policy relative to transfer policy

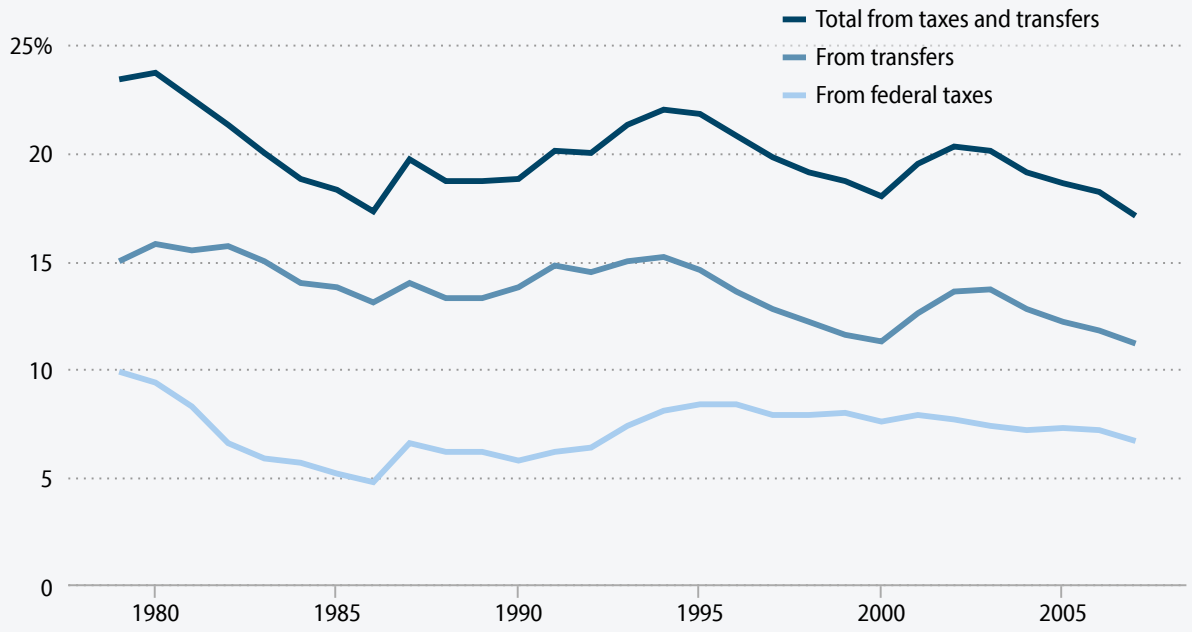
While both tax and transfer policy have scope to reduce or exacerbate inequality growth, the remainder of this paper will focus exclusively on the relationship between tax policy and inequality, for several reasons.

First, the progressivity of the tax and transfer system can be increased within the top 1 percent of households more easily by changing tax policy than by restricting transfers, say by increasing Medicare premiums for upper-income households. Tax policy can more easily be fitted to the skewed distribution of income by adding additional tax brackets at higher taxable income thresholds and marginal rates or by reducing preferential tax preferences for investment income, which are by far the most regressive tax expenditures (Toder and Baneman 2012).

Second, the 112th Congress prioritized deficit reduction, an objective that could be substantially advanced by increasing the progressivity of the tax code (e.g., raising effective tax rates for upper-income households), whereas

FIGURE B VIEW INTERACTIVE *on epi.org*

Percent reduction in inequality (Gini index) from federal taxes and transfers, 1979–2007



Source: CBO (2011)

ECONOMIC POLICY INSTITUTE

there is considerably less scope for deficit reduction through means-testing transfers to upper-income households; in other words, there is vastly more market-based income than transfer income at the top of the income distribution. As noted above, the income share of the top 5 percent, particularly the top 1 percent, of households by income is high and rising; realistically, this is the major tax revenue base for the progressive income tax code. And as will be discussed below, this is where progressivity of the federal tax code has fallen most sharply since the 1960s. Increasing the progressivity of transfers or taxes at the lower end of the income distribution would, on the other hand, add to budget deficits; this creates a substantial political barrier regardless of policy merits.

Third, changes in tax policy can be implemented faster than changes in many transfer benefits, as some benefits are accrued based on lifetime earnings, and politicians are reluctant to change retirement benefits for those approaching retirement (typically taken to mean individuals within a decade of the normal retirement age).

But last and most importantly, new economic research suggests that changes in tax policy over the past four decades—particularly reductions in top marginal tax rates—have exacerbated the growth in market-based income inequality, suggesting that tax policy could potentially slow the primary driver of inequality.

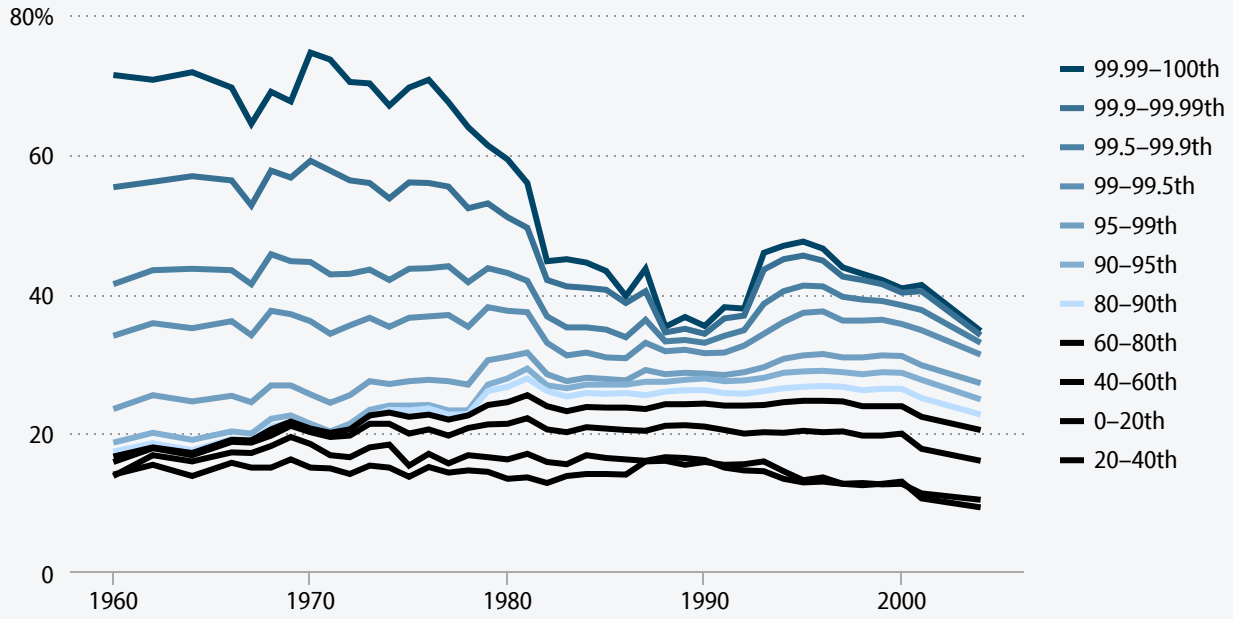
Before delving into recent economic research on tax policy's influence on income inequality growth, a short overview of shifts in U.S. federal tax policy over the second half of the 20th century will be useful.

Declining progressivity of the tax code

Since the end of World War II, U.S. top individual income tax rates have declined markedly, as have effective tax rates on corporate income, capital income, and inher-

FIGURE C VIEW INTERACTIVE *on epi.org*

Average effective tax rates, by income percentiles, 1960–2004



Note: Data are for cash income.

Source: Piketty and Saez (2007)

ECONOMIC POLICY INSTITUTE

itances. Consequently, the federal tax code has become much less progressive (Piketty and Saez 2007). The top statutory marginal tax rate has fallen from just over 90 percent in the 1950s, to 70 percent in the 1970s, to 50 percent in the mid-1980s, to 35 percent for most of the past decade (TPC 2013a). The taxable income cutoff above which the top rate is applied for married joint filers has also fallen precipitously, from roughly $3 million in the early 1950s (adjusted to 2012 dollars), to roughly $1 million in the early 1970s, to just $388,350 in 2012 (TPC 2013b).

The top federal income tax rate stood at 70 percent in 1979 and averaged an even higher 80.6 percent between 1947 and 1979 (TPC 2013a). By 2007, the top rate had been cut in half to 35 percent, and it averaged just 40.8 percent between 1980 and 2007. Causality aside, distinctly lower top marginal tax rates were in effect during the period of rising income inequality as opposed to the years of equitably shared growth (1947–1979).

And just as the divergence of income growth has been most striking within the top income percentile, the decline in tax progressivity in recent decades is most striking there as well, as depicted in **Figure C.** There has been a remarkable convergence of effective tax rates within the top 1 percent of earners, particularly between 1971 and 1988 and again between 1993 and 2004, with a recent sharp decline in 2004 as the Bush-era tax cuts on capital gains and dividends took effect. The effective tax rate for the top hundredth of a percentile (i.e., tax filers in the 99.99-percent-and-above range by income) has fallen by more than half, from 71.4 percent in 1960 to 34.7 percent in 2004, versus a decline for the 99.5–99.9th percentiles from 41.4 percent in 1960 to 33.0 percent in 2004 (Piketty and Saez 2007).[8]

Effects on income inequality and the distribution of gains from growth

Everything else being equal, increasing top marginal tax rates would decrease after-tax income inequality (by definition making the tax and transfer system more progressive), but economic research suggests such changes could also have powerful effects on *pretax* inequality. As discussed above, the pretax market distribution of income has been the primary driver of inequality growth, and the federal tax and transfer system would have to be made substantially more redistributive than it was in 1979 in order to reverse the increase in post-tax, post-transfer inequality since then. Reducing pretax inequality growth is the key to slowing post-tax, post-transfer inequality growth, although there is certainly scope to restore lost progressivity through the tax and transfer system.

Using time series regression analysis over 1945–2010, Hungerford (2012) found that reductions in the top capital income tax rates and the top ordinary income tax rates were significantly correlated (a 5.0 percent and 10.0 percent significance level, respectively) with decreases in the labor share of income (as opposed to the capital share of income).[9] Decreases in the top capital gains rate were found to increase growth of the income shares of both the top 0.1 percent of earners and the top 0.01 percent of earners (statistical significance at the 1.0 percent confidence level); the same was true for decreases in the top ordinary income tax rate (significant at the 10.0 percent confidence level). He concluded, "top tax rate reductions appear to be associated with increasing concentration of income at the top of the income distribution."

Breaking out the roles of shifting income sources and tax policy

It is reasonable to assume that there may be interactions between changes in the tax treatment of capital income and changes in capital income's share of total income, with implications for inequality. To this point, Hungerford (2013) decomposed the roles of labor income (wages), capital income, and tax policy in widening income inequality over the years 1991–2006, a period in which taxes on investment income were cut substantially. The major tax changes over this period were the Omnibus Budget and Reconciliation Act (OBRA) of 1993, the Balanced Budget Act (BBA) of 1997, the Economic Growth and Tax Relief Reconciliation Act (EGTRRA) of 2001, and the Jobs and Growth Tax Relief Reconciliation Act (JGTRRA) of 2003. The last two are generally referred to as the Bush-era tax cuts.[10] The 1993 act raised the top income tax rate to 39.6 percent from 31 percent, while the 1997 act reduced the top statutory long-term capital gains tax rate from 28 percent to 20 percent. The Bush-era tax cuts introduced a 10-percent tax bracket, reduced the top income tax rate to 35 percent, reduced other marginal income tax rates (particularly for high earners), reduced the long-term capital gains tax rate from 20 percent to 15 percent, and created a new 15 percent preferential tax rate for qualified dividends (previously taxed as ordinary income). Note that in relative terms, the biggest relative swings in tax rates between 1991 and 2006 were for capital income, notably a 51.6 percent reduction in the top statutory dividends tax rate and a 46.4 percent reduction in the top statutory capital gains tax rate, versus a net reduction in the top statutory ordinary income tax rate of 12.9 percent.

Looking at a comprehensive measure of income including capital gains, Hungerford (2013) found that the Gini index of inequality rose from 0.468 in 1991 to 0.539 in 2006, for an increase of 15.2 percent.[11] The relative weighted S-Gini coefficient for the bottom of the income distribution rose 5.2 percent over this period, while the relative weighted S-Gini coefficient for the top of the income distribution rose 23.0 percent, a disparity which strongly suggests that the rise in inequality has been driven by changes at the top of the income distribution.[12]

Over this period, the share of total income accruing to labor income fell from 92.3 percent to 77.1 percent, while the share of income from capital gains and dividends rose from 5.4 percent to 15.6 percent, representing a 287 percent rise in income from capital gains and dividends (Hungerford 2013). The share of business income rose from 2.0 percent to 5.2 percent, reflecting a 265 percent increase in business income. Overall, capital income—capital gains, dividends, business income, and interest income (the share of which fell over this period)—rose as a share of total income from 16.7 percent in 1991 to 25.0 percent in 2006.

The share of income going to federal taxes fell in absolute value from 28.4 percent to 25.5 percent over this period, meaning that the average effective tax rate fell despite bracket creep.[13] The absolute value of the income tax share rose from 14.7 percent to 16.1 percent between 1991 and 1996—likely resulting from the 1993 OBRA—and then fell to 13.2 percent in 2006 from 16.3 percent in 2001, almost certainly driven by the Bush-era tax cuts. The share of payroll taxes fell in absolute value from 12.6 percent in 1991 to 10.2 percent in 2006, likely the result of the declining wage tax base (capital income was not subject to payroll taxes over this period) and the declining share of wage income subject to the Social Security payroll tax (as a rising share of wage income accrues above the payroll tax maximum, the tax base has been shrinking—essentially bracket creep lifts a taxpayer into a zero tax bracket).

The share of income inequality explained by the distribution of investment income rose from 32.6 percent in 1991 to 44.4 percent in 2006 (Hungerford 2013). As wages fell as a share of total income, the portion of inequality explained by wage income moved in the opposite direction, falling from 77.4 percent in 1991 to 66.0 percent in 2006. Meanwhile, the role of federal taxes in alleviating inequality was diminished, from a dampening effect of a 32.8 percent share in 1991 (and a post-OBRA 37.0 percent in 1996) to 30.5 percent in 2006.

Hungerford (2013) found that a 1 percent increase in taxes would have reduced the Gini index of inequality by 0.5 percent in 2006, up an order of magnitude from a 0.04 percent reduction in 1991, everything else being equal. This suggests substantially more scope for tax policy to push back against income inequality through a combination of increased tax progressivity and, more importantly, greater equity in the treatment of capital and labor income.

Similarly, Hungerford (2011) found that the rising share of capital income—heavily concentrated at the top of the income distribution—at the expense of labor income was the single largest driver of widening income inequality between 1996 and 2006.[14] The second largest factor contributing to income inequality over this period was deliberate changes to the tax code. Tax policy changes exacerbated the trend of increased post-tax income at the top of the income distribution, and the rising share of capital income was almost certainly encouraged by tax cuts for investment income. Again, the largest relative and absolute changes in statutory tax rates over this period were decreases in the qualified dividends rate (from 39.6 percent to 15 percent) and long-term capital gains rate (from 28 percent to 15 percent).

Are tax incentives driving trends in market-based income?

For households that can reclassify compensation to minimize tax liability, the relatively large reductions in tax rates on capital income, particularly after the 1986 Tax Reform Act, which equalized tax treatment of labor and investment income, has created an incentive to shift income away from wages and salaries toward capital income.

Piketty, Saez, and Stantcheva (2011) offer a theoretical framework explaining this relationship between falling top tax rates and rising inequality: Decreasing the top tax

rate increases the returns to bargaining for higher wages, whereas the higher top tax rates of the 1940s to 1970s reduced the returns to this bargaining. Essentially, low marginal tax rates increase the returns to rent-seeking by upper-income households (i.e., using economic or political influence, rather than market factors, to "bargain" a higher share of income at the expense of other workers).

Time series regression analysis for the United States indicates that elasticity of taxable income (ETI) with respect to the net-of-marginal tax rate is relatively small, in the range of 0.25–0.3, and is consistent when measuring income both with and without capital gains (a control for tax avoidance).[15] These estimates are consistent with a recent review of the ETI literature by Saez, Slemrod, and Giertz (2012), which found that reasonable estimates for the ETI with respect to the net-of-marginal tax rate range from 0.12 to 0.40, and identified a preferred midpoint elasticity of 0.25. Critically, Piketty, Saez, and Stantcheva (2011) decompose the total elasticity using time series regression analysis and conclude, "the evidence is consistent with the bargaining model in which gains at the top have come at the expense of the bottom."

The authors warn that evidence from a single country is merely suggestive but, consistent with their explanatory framework, they find a "strong correlation between cuts in top tax rates and increases in top 1.0 percent income shares [across 18 OECD countries] since 1975, implying that the overall [bargaining] elasticity is large. But top income share increases have not translated into higher economic growth, consistent with the zero-sum bargaining model" (Piketty, Saez, and Stantcheva 2011).

Their regression analyses suggest that the behavioral response to lower top tax rates is one that exacerbates income inequality without increasing overall economic activity. And if a portion of the ETI with respect to the net-of-marginal tax rate reflects such bargaining behavior, the revenue-maximizing total top labor income tax rate may be as high as 83 percent (Piketty, Saez, and Stantcheva 2011), implying a revenue-maximizing top marginal federal income tax rate of roughly 80 percent (Fieldhouse 2013a).[16] Essentially, raising top marginal tax rates could yield large reductions in income inequality growth without substantially reducing productive economic activity, contrary to supply-side claims about efficiency loss from income taxation.

Conclusion

The market-based distribution of income concentrated at the top of the income distribution, particularly the rising share of investment income at the expense of labor income, is driving the sharp growth of income inequality in the United States. Declines in the redistributive nature of the tax and transfer system have exacerbated this trend since 1979, and there is substantially more scope for tax and budget policy to push back against post-tax, post-transfer inequality today than in the late 1970s or even early 1990s. But meaningfully slowing post-tax, post-transfer inequality growth will require slowing market-based income growth at the very top of the income distribution.

Recent research suggests that raising top marginal tax rates on both ordinary income as well as capital gains may have substantial scope to slow market-based inequality growth in addition to decreasing after-tax inequality. Furthermore, research suggests that some of the rise in

This issue brief was made possible by grants from the Peter G. Peterson Foundation and the Ford Foundation. The statements made and views expressed are solely the responsibility of the author.

income growth at the top of the income distribution results from bargaining by executives and managers—at the expense of other workers—encouraged by reductions in top marginal tax rates. The transfers are zero-sum, meaning that they merely shift income between classes with no gains to productivity, and implying that reversing the tax policy changes motivating these shifts will have little effect on productive economic activity and would thus raise substantial revenue. And unlike expanding transfers or tax cuts at the bottom end of the income distribution, making the tax code more progressive at the top is particularly relevant to policy because it would advance Congress's recent prioritization of long-term deficit reduction.

While research has identified statistically significant relationships between reductions in top tax rates and the rising share of capital income and rising income shares at the very top of the income distribution, further research is merited on the interaction between changes in capital income taxation and the rise of investment income as a share of total income. To date, most research has focused on relationships with the net-of-top-marginal capital gains tax rate and net-of-top-marginal ordinary income tax rate, but the percentage-point tax rate differential between the top effective tax rates for ordinary income and capital gains may be a more informative explanatory variable with respect to the rising share of capital income and, relatedly, top income shares.

On a purely theoretical level, the zero-sum bargaining model in which marginal rate reductions encourage more rent-seeking behavior is more applicable to the preferentially lower rates on capital gains and dividends than ordinary income. This possibility could be explored by adapting and applying the zero-sum bargaining model and backing time series regression analysis by Piketty, Saez, and Stantcheva (2011) strictly to changes in capital income (their analysis is limited to income excluding capital gains and income including capital gains). This question is particularly pertinent given the large relative reductions in capital gains and dividends tax rates as well as the recent divergence in these rates relative to the top ordinary income tax rate that resulted from the Bush-era tax cuts, some of which persist despite tax changes in the American Taxpayer Relief Act of 2013 and the Affordable Care Act of 2010.[17]

Similarly, if top ordinary income tax rates were raised without raising capital income tax rates in tandem, the increased tax arbitrage opportunities from reclassifying labor income as investment income could exacerbate the rise in capital income at the expense of labor income, and inequality at large. Empirical research and theoretical models to date suggest that the most effective way of using the tax code to push back against income inequality would both raise top effective income tax rates for ordinary income and capital income, while also narrowing the tax differential between these rates. Further research on this tax wedge would help elucidate the ability of tax policy to push back against the rise in market-based income inequality, which should be the top priority for policymakers interested in slowing inequality growth.

*— **Andrew Fieldhouse** is a federal budget policy analyst with the Economic Policy Institute and The Century Foundation. He previously worked as an assistant budget analyst and research assistant with the House Budget Committee. His areas of research include federal tax and budget policy, political economy, public investment, and macroeconomics. Fieldhouse provides frequent commentary on the current budget debate and the impact of fiscal policy on the economic recovery.*

*— The **Economic Policy Institute** is a nonprofit, nonpartisan think tank that seeks to broaden the public debate about strategies to achieve a prosperous and fair economy. EPI stresses real-world analysis and a concern for the living standards of working people, and makes its findings accessible to the general public, the media, and policymakers through books, studies, and education materials. **The Century Foundation** conducts public policy research and analyses of economic, social, and foreign policy issues, including*

inequality, retirement security, election reform, media studies, homeland security, and international affairs. With offices in New York City and Washington, D.C., The Century Foundation is nonprofit and nonpartisan and was founded in 1919 by Edward A. Filene.

Endnotes

1. See Bivens (2011) and Hungerford (2013) for summaries of factors and theories explaining rising income inequality.

2. The Gini index, also known as the Gini coefficient, is a commonly used measure of inequality quantifying the dispersion of income. The index ranges from 0 to 1, with the lower-bound translating to a perfectly equitable distribution of income and the upper-bound implying perfectly inequitable distribution of income. The Gini index is calculated as half the relative mean difference, or the average difference in income between every pair of households, expressed as a percentage of income (CBO 2011).

3. Income quintiles are calculated by ranking all families by money income and then dividing them into fifths. These calculations are based on the Current Population Survey Annual Social and Economic Supplement *Historical Income Tables* (Tables F-2, F-3, and F-5).

4. The years 1979 and 2007 are good comparison years because they are both business cycle peaks predating the 1980 recession and Great Recession, respectively. Measuring income changes relative to the market distribution of income in 1979 additionally captures the vast majority of income inequality growth in the post-World War II era.

5. A tax unit includes all people filed on the same tax return, as opposed to household or family income. Cash, market-based income excludes noncash income and transfers.

6. This compares with 26.4 percent of the benefit of itemized deductions, 15.9 percent of the benefit of exclusions, 8.3 percent of the benefit of above-the-line deductions, and 8.3 percent of the benefit of nonrefundable tax credits, all for the top 1 percent of households by income (Toder and Baneman 2012). Distributional analysis is for tax year 2011.

7. CBO's definition of market-based income includes labor income (wages and salaries, employer-paid health insurance premiums, and employers' shares of federal payroll taxes); business income (business and farm income from sole proprietorships, partnerships, and S corporations); capital income (capital gains, taxable and tax-exempt interest, dividends paid by corporations (excluding S corporations), and corporate income taxes assigned in proportion to shares of other capital income); and other income, including retirement income (CBO 2011).

8. Effective tax rates are measured combining the incidence of individual income, payroll, corporate, and estate and gift taxes. The decline in effective tax rates within the top 1 percent of households has largely been driven by declining incidence of corporate and estate taxes, although much of the corporate income tax base has shifted into the individual income tax base (the proliferation of pass-through entities following the Tax Reform Act of 1986) without a corresponding increase in progressivity and/or revenue from the individual income tax.

9. Hungerford's regression analysis in Table A-2 is presented as increases in the net-of-marginal capital gains and ordinary income tax rates instead of decreases in tax rates, but the analytic results are the same (Hungerford 2012). Changes in the top income shares are in logarithmic form. Real GDP growth (lagged one year) is also included in the regression analysis as an explanatory control variable.

10. There were a number of tax changes over the years 2001–2008. Subsequent tax changes primarily acceler-

ated the implementation of provisions in the 2001 and 2003 tax acts.

11. Hungerford (2013) measures income using equivalence-adjusted gross income from all sources but government assistance, with an equivalence adjustment of the square root of exemptions claimed by the tax unit (additional exemptions for the blind and elderly are ignored). The tax incidence of capital income tax is fully assigned to capital gains and dividends. It is assumed that 50 percent of capital gains are taxed at both the corporate and individual level (some partnership investment income is passed on to individual partners as capital gains and is never taxed at the corporate income level) and that 100 percent of dividends are taxed at both the corporate and individual level.

12. The S-Gini coefficient parameter (v) of 1.5 is used for the high end of the income distribution and a value of 4 is used for the bottom of the income distribution. The standard Gini index uses v=2 (Hungerford 2013).

13. The share of income going to federal taxes are counted as negative income shares. Individual income tax and payroll tax shares fell while the corporate income tax share rose in absolute value.

14. These dates are relatively comparable in their respective business cycle expansions and span the 1997 reduction in capital gains tax rates under President Clinton, as well as the 2001–2005 tax changes under President George W. Bush.

15. Economists use empirical data to estimate elasticities, which measure the percentage change responsiveness of a variable of interest (e.g., labor supply or taxable income) to the percentage change in another variable, typically price (e.g., the net-of-marginal tax rate, or 1–t, where t is the marginal tax rate—the price of leisure). The higher the elasticity, the more responsive the dependent variable of interest is to the independent variable.

16. Their revenue-maximizing taxation model assumes that tax avoidance behavioral responses are negated by tax enforcement and a well-designed tax code that minimizes avoidance opportunities (e.g., tax neutrality across income types and few tax loopholes).

17. See Fieldhouse (2013b) for an overview of tax changes effective January 1, 2013, resulting from the American Taxpayer Relief and the Affordable Care Act.

References

Bivens, Josh. 2011. *Failure by Design: The Story Behind America's Broken Economy.* An Economic Policy Institute Book. Ithaca, N.Y.: Cornell University Press.

Bivens, Josh, Andrew Fieldhouse, and Heidi Shierholz. 2013. *From Free-Fall to Stagnation: Five Years After the Start of the Great Recession, Extraordinary Policy Measures Are Still Needed, but Are Not Forthcoming.* Economic Policy Institute, Briefing Paper No. 355. http://www.epi.org/files/2013/bp355-five-years-after-start-of-great-recession.pdf

Congressional Budget Office (CBO). 2011. *Trends in the Distribution of Household Income Between 1979 and 2007.* http://www.cbo.gov/sites/default/files/cbofiles/attachments/10-25-HouseholdIncome.pdf

Fieldhouse, Andrew. 2013a. *A Review of the Economic Research on the Effects of Raising Ordinary Income Tax Rates: Higher Revenue, Unchanged Growth, and Uncertain but Potentially Large Reductions in the Growth of Inequality.* Economic Policy Institute-The Century Foundation, Issue Brief No. 353. http://www.epi.org/publication/raising-income-taxes/

Fieldhouse, Andrew. 2013b. "Tax Day 2013: For the Vast Majority, It's All About the Expired Payroll Tax Cut." *Working Economics* (Economic Policy Institute blog), April 15. http://www.epi.org/blog/tax-day-2013-vast-major-expired-payroll/

Hacker, Jacob and Paul Pierson. 2011. *Winner-Take-All Politics: How Washington Made the Rich Richer—and Turned Its Back on the Middle Class.* New York: Simon & Schuster.

Hungerford, Thomas. 2011. *Changes in the Distribution of Income Among Tax Filers Between 1996 and 2006: The Role of*

Labor Income, Capital Income, and Tax Policy. Congressional Research Service. http://taxprof.typepad.com/files/crs-2.pdf

Hungerford, Thomas. 2012. *Taxes and the Economy: An Economic Analysis of the Top Tax Rates Since 1945.* Congressional Research Service. http://graphics8.nytimes.com/news/business/0915taxesandeconomy.pdf

Hungerford, Thomas. 2013. *Changes in Income Inequality Among U.S. Tax Filers Between 1991 and 2006: The Role of Wages, Capital Income, and Taxes.* http://ssrn.com/abstract=2207372

Mishel, Larry, Josh Bivens, Elise Gould, and Heidi Shierholz. 2012. *The State of Working America, 12th Edition.* An Economic Policy Institute Book. Ithaca, N.Y.: Cornell University Press.

Piketty, Thomas and Emmanuel Saez. 2007. "How Progressive Is the U.S. Federal Tax System? A Historical and International Perspective." *Journal of Economic Perspectives*, vol. 21, no. 1, pp. 3–24. http://elsa.berkeley.edu/~saez/piketty-saezJEP07taxprog.pdf

Piketty, Thomas, Emmanuel Saez, and Stefanie Stantcheva. 2011. *Optimal Taxation of Top Labor Incomes: A Tale of Three Elasticities*. National Bureau of Economic Research, Working Paper No. 17616.

Saez, Emmanuel, Joel Slemrod, and Seth Giertz. 2012. "The Elasticity of Taxable Income With Respect to Marginal Tax Rates: A Critical Review." *Journal of Economic Literature*, vol. 50, no. 1, pp. 3–50. http://elsa.berkeley.edu/~saez/saez-slemrod-giertzJEL10round2.pdf.

Tax Policy Center (TPC). 2013a. *Historical Individual Income Tax Parameters*. http://www.taxpolicycenter.org/taxfacts/displayafact.cfm?Docid=543

Tax Policy Center (TPC). 2013b. *Individual Income Tax Parameters (Including Brackets), 1945–2012*. http://www.taxpolicycenter.org/taxfacts/Content/Excel/individual_rates.xls

Toder, Eric and Daniel Baneman. 2012. *Distributional Effects of Individual Income Tax Expenditures: An Update.* Urban-Brookings Tax Policy Center. http://www.urban.org/UploadedPDF/412495-Distribution-of-Tax-Expenditures.pdf