Written Testimony for Hearing, "Funding Our Nation's Priorities: Reforming the Tax Code's Advantageous Treatment of the Wealthy"

Adam Looney
Executive Director of the Marriner S. Eccles Institute, University of Utah

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Wealth and income are heavily concentrated in the United States—and increasingly so. One factor that contributes to the concentration of income and wealth is the tax system's advantageous treatment of inherited wealth, corporate and non-corporate business income, and capital gains.

The tax system is, of course, a means to raise revenue to fund government. But it is also one of the most significant policy tools that the federal government uses to reduce poverty, insure Americans against risks to their health and economic wellbeing, and offset market-driven increases in inequality in income and wealth.

Over the last several decades, as inequality surged, and as job opportunities for some workers stagnated, changes in federal policies partly—but not entirely—offset those headwinds. In particular, provisions such as the Earned Income Tax Credit (EITC) and the Credit Tax Credit have substantially increased the incomes and well-being of for low- and middle-income families.

At the same time, however, changes in tax policy have also tended to favor the highest-income taxpayers. Legislation has reduced tax rates on corporations, private businesses, capital gains and dividends, and on inherited wealth. In other words, we have reduced tax rates on the forms of income and assets that are particularly important to the wealthy—and this has diluted the effectiveness of the tax system in restraining the forces that are widening inequality in the U.S. As a result, the tax system now does less to reduce inequality in income and wealth at the top of the distribution today than it has in the past.

Moreover, the fact that all taxpayers got a tax cut over the past several decades, despite increases in federal spending, means that increases in transfers to low- and middle-income households came at the expense of other federal spending, including productive government investments in infrastructure and research, and rising deficits. In short, reduced rates on high-income taxpayers have not only made the tax system less progressive but also impaired other fiscal goals.

Inequality in income and wealth

For perspective, the distribution of income and wealth is incredibly unequal. According to estimates from the Congressional Budget Office, in 2017, the top 1 percent of households

earned almost 19 percent of all market income, which includes wages, business income, and capital income before taxes and transfers, and the top 10 percent about 44 percent.[i]

Wealth is even more concentrated. According to the latest Federal Reserve Survey of Consumer Finances, in 2019 the top 1 percent of households held about one third of all wealth (more than the bottom 90 percent combined) and the top 10 percent 71 percent.[ii]

These data imply that in 2017 average income of households in the top 1 percent ($1.9 million) was about 29 times greater than that of middle-income households ($66,800), and in 2019, the average wealth of the top 1 percent ($27.6 million) was about 263 times that of middle-class households ($105,100)[iii].

In historical context, the concentration of income and wealth is unprecedented. Between 1979 and 2017, per-capita pre-tax market income earned by the top 1 per increased 250 percent, compared to only 29 percent for the lowest-income 20 percent of the population and 39 percent for the middle class. Over that period, the top 1 percent share of market income increased from 9 percent to 19 percent.[iv] Likewise, between 1978 and 2016, the share of wealth owned by the top 1 percent increased from about 22 percent to more than 30 percent and the share owned by the top 0.1 percent doubled (from 7 percent to 14 percent).[v]

The relationship between taxes and inequality

The tax system plays an important role in mitigating income inequality because it is progressive; on an after-tax, after-transfer basis the distribution of income is less unequal. Among low- and middle-income households, federal tax and transfer policies have reduced poverty and increase after-tax, after-transfer incomes. However, the tax system has become less progressive at the top of the income distribution and, today does less to reduce inequality in wealth than in the past.

For example, the CBO estimates that the income per person earned (pre-tax and transfers) by the lowest-income households increased 29 percent between 1979 and 2017, and by 39 percent among middle-income households. On an after-tax, after transfer basis, however, the take-home income of the lowest-income families actually doubled and it increased by 57 percent for middle-income households because of reductions in their tax burdens and increases in transfers.[vi] Likewise, the fraction of Americans living in poverty—measured based on their after tax, after transfer income—has declined from 13.0 percent in 1980 to 7.7 percent in 2018, largely due to federal policies.[vii] In 2017, taxes and transfers cut poverty by almost 60 percent.[viii] And the recently passed American Rescue Plan is expected to reduce the fraction of Americans living in poverty this year by 31 percent, and by 56 percent among children.[ix]

To a large extent, these achievements are the result of tax policies, particularly the EITC and the Child Tax Credit. In 2018, the EITC and Child Tax Credit lifted almost 11 million Americans out of poverty (including 5.5 million children) and made almost 18 million less poor (including 6.4 million children).[x] Absent the EITC alone, poverty would be 17 percent higher.[xi]

In other words, the experience over the last forty years teaches that tax policy and social insurance programs are an effective tool that can offset increases in inequality and reduce poverty.

An exception to these trends is that legislation has reduced the effective tax rates paid by high-income taxpayers over time, and those reductions were largest among the highest income and highest-wealth taxpayers. As a result, the tax system now does less to reduce inequality in income and wealth today among high-income taxpayers than it has in the past, and high-income taxpayers contribute less toward funding government programs.

For instance, according to IRS statistics, the effective average individual income tax rate paid by the top 1 percent of taxpayers in 2018 was 25.4 percent, down from 31 percent in the 1970s and from even higher rates in earlier decades. For the top very richest 0.001 percent of taxpayers, the decline was even sharper, to 23 percent from 31 percent in 1995, 38 percent in 1985, and 46 percent in 1975.[xii]

Likewise, estimates of the total burden of all taxes, including individual, corporate, excise, estate, and property taxes at both federal and state and local levels, show that taxpayers in the top 1 percent paid effective rates ranging from 40 percent to 70 percent in 1950 but between 33 percent and 23 percent in 2018.[xiii] Today tax rates at the very top are regressive in the sense that the very highest income taxpayers face lower effective rates than other taxpayers within the top 1 percent.

There are several changes in the tax system that contribute to these trends: the tax system's increasingly generous treatment of inherited wealth, reductions in tax rates on corporate and business income owned by wealthy taxpayers, and the favorable treatment of capital gains on investments and other assets disproportionately owned by high-wealth taxpayers.

These advantageous elements of the tax code allow higher-income households to accumulate more wealth, increase the market value of their existing assets, and increase the wealth that is passed along to future generations.

Inherited wealth

One contributor to wealth concentration is the fact that wealthy families pass their assets along to future generations. Inheritances and intergenerational financial gifts are an important cause of wealth concentration.[xiv] Gifts and bequests are highly skewed—fewer than 2 percent of bequests exceed $1m but those gifts represent 40 percent of dollars transferred. Recipients are better educated, higher income, and hold more wealth than individuals that do not receive gifts or bequests. More than half of intergenerational transfers went to individuals who were already in the top 10 percent of the wealth distribution, compared to only 8 percent of transfers to individuals in the bottom half of the distribution. In the aggregate, the dollar amounts are large—each year decedents pass on close to a $1 trillion to their heirs.[xv]

The tax system subsidizes intergenerational transfers for wealthy households because capital gains taxes that would normally apply to the sale or transfer of appreciated assets, like corporate stock, are not applied to bequests. Bequests received by heirs are not subject to tax, and the tax basis of inherited assets is immediately increased ("stepped-up") to the market value at the date of death. Unlike assets sold by a taxpayer, which are immediately subject to income tax, or gifts of appreciated assets, whose basis is "carried over" to the recipient, capital gains on assets held until death are never subject to income tax.

Each year, hundreds of billions in capital gains escape income tax as a result of the non-taxation of gains on bequests and gifts. The exclusion of capital gains due to "step up" is among the largest tax expenditures, estimated to cost $660 billion between 2020-2029.[xvi]

Moreover, the benefit of this tax preference is highly concentrated among the wealthy because bequests are rare outside wealthy decedents, the value of bequests is concentrated among high-income individuals and their heirs, and because unrealized capital gains compose a large share of the assets of wealthy households; in 2013, unrealized gains represented about 34 percent of the wealth of the top 1 percent, and households in the top 10 percent of the wealth distribution hold about 93 percent of all unrealized gains.[xvii]

Indeed, the U.S. Treasury estimated that virtually all of the revenue that would be raised were step up in basis at death eliminated would be paid by taxpayers in the top 1 percent of the income distribution and 80 percent by the top 0.1 percent.[xviii]

Historically, the tax benefits of stepped up basis were partially offset by the estate and gift tax system, which as recently as 2001 applied to estates valued above $675,000 (about $1 million today) and at rates that reached as high as 55 percent. Today the estate tax applies only to estates that exceed $23.4 million per couple and the highest effective rate is 40 percent. Because of legislated changes, the estate tax has been eliminated for all but extremely wealthy households—about 0.2 percent of decedents pay estate tax and, as a result of the large exemption and other avoidance opportunities, the effective tax estate tax rate among taxable estates was 17 percent.[xix]

In short, the exclusion from tax of capital gains held until death increases intergenerational wealth transfers.

Business Income

The tax code also provides preferential treatment for the income and assets predominantly owned by wealthy households. The majority of the wealth of very wealthy households is in the form of business assets. Business income—especially "pass-through" business income—is taxed at lower rates than those that apply to other forms of income, including labor income (like wages) that forms the majority of most taxpayers' incomes.

About 58 percent of the wealth of the top 1 percent is composed of the stock of public companies or privately-held businesses. Among the wealthiest 0.1 percent of households,

about 70 percent of their wealth is held as shares of public or private businesses. In contrast, most of the wealth of the bottom 90 percent of households is in their homes or pensions.[xx]

In fact, the majority of high-income taxpayers are owners of pass-through business owners. In 2014, 69 percent of the top 1 percent of income earners and 84 percent of the top 0.1 percent of income earners accrued some pass-through business income. For perspective, that means there are five times as many pass-through business owners in the top 0.1 percent of the income distribution than there are highly-paid executives of public companies.[xxi]

Because stock ownership is so concentrated, the top 1 percent earn about 45 percent of C-corporate income (as measured by dividends) and an even larger share—about 70 percent—of the income of pass-through S-corporations and partnerships that do not face the corporate tax. Increases in the income of these businesses is a key contributor to the increase in inequality in income and wealth. For instance, almost half of the increase in the increase in the top 1 percent share of income since the 1970s is associated with pass-through business income.[xxii] Owners of S-corporations and partnerships now earn about half of all income from businesses.[xxiii]

Today, the maximum statutory federal rate that applies to the wages of executives and highly-compensated officers of public companies is 53.2 percent, 40.8 percent for the wages of other employees, 39.8 percent for corporate businesses (but often lower), and 29.6 percent for many forms of pass-through business income.[xxiv]

The tax advantages of business owners are relatively recent. In 1986, the top individual income tax rate fell below the corporate tax rate, creating significant incentives for a business to un-incorporate and for new businesses to organize as pass-throughs. Legislation loosened limitations on the activities, financial structures, and shareholders of S-corporations. For partnerships, changes in state law established new entity types, like limited liability companies (LLCs), and regulatory changes, like the "check the box" rules finalized in 1996, allowed a multitude of business types to elect to be taxed as partnerships (just by checking a box).

The shift in the share of income earned by pass-through businesses and the lower effective tax rates they pay has reduced the tax burden on business owners substantially. According to one U.S. Treasury study, if the relative shares of pass-through and C-corporate activity were held at 1980 levels, the average tax rate on business income in 2011 would have been 28 percent instead of 24 percent. This translates to more than $100 billion in lost revenue in 2011 alone.[xxv]

The implementation of the Medicare surcharge and the Net Investment Income Tax, enacted in 2010, which carved out S-corporation profits and certain other pass-through income from either tax, increased the relative benefit of earning income through a pass-through business. In recent years, this has accelerated the shift of professional service businesses, like healthcare providers, technical and scientific services, or contractors, into pass-through form and to characterize their income as "profits" instead of wages to avoid payroll taxes.[xxvi]

As a result, the growth of pass-through businesses has also contributed to the erosion of the payroll tax base, which funds Social Security, Disability, and Medicare. Prior to the mid-1980s, owners of closely-held businesses paid Social Security and Medicare payroll taxes on most of their income. Most businesses were either sole proprietorships or general partnerships (in which all business income is treated like wages for payroll tax purposes) or closely held C-corporations (whose owners generally paid out their income as wages to avoid the double tax on profits). The growing share of income accruing to limited partners, LLCs, and others that file as partnerships and to S-corporations eroded the payroll tax base because those entities are either statutorily excluded from the payroll base or a lack of clarity in the law allows owners to avoid the tax.[xxvii]

In 2011, about 71 percent of pass-through owner income was subject to Social Security or Medicare taxes, down from 88 percent in 1994. In addition, because pass-through business income has increased over time as a share of total income, these shifts have eroded the long-run solvency of the trust funds that depend on payroll revenues.

The Tax Cuts and Jobs Act (TCJA), enacted in 2017, accelerated these trends. TCJA introduced a 20 percent deduction (under Section 199A) for most pass-through business income. Half of the tax savings of 199A accrues to the top 1 percent of taxpayers, and 72 percent to the top 5 percent.[xxviii]

At the same time, the TCJA reduced the corporate tax rate from 35 percent to 21 percent. Most of the benefit of that rate cut accrued to corporate shareholders and between 34 percent and 47 percent accruing to the top 1 percent of taxpayers.[xxix] These recent provisions reduced revenues substantially, made the tax system less progressive and inequitable, introduced new economic distortions, but did little to stimulate new business formation, employment, or investment.[xxx]

Reduced tax rates on business and corporate assets not only increase the after-tax income of business owners, they also increase the value of the business itself because the stream of future income is more valuable. In this sense, preferences for corporate and business income directly increase the wealth of owners of those assets.

Capital Gains and Investment income

In addition to low rates that apply to active business income, owners of businesses and other capital assets benefit from preferential capital gains rates on the sale of those assets. Long term capital gains face a maximum tax rate of 23.8 percent, if subject to the 3.8 percent Net Investment Income Tax, or 20 percent otherwise. About 80 percent of the tax benefit from the preferential rates on capital gains qualified dividend accrues to the top 1 percent of taxpayers and 92 percent to the top 10 percent.[xxxi]

For investors in certain assets, the capital gains tax treatment is even more favorable. Owners of qualifying real estate may defer tax on the sale of an asset through “like-kind” exchanges

(under Section 1031). Sales of Qualified Small Business Stock (BSBS) (under section 1202) or of investments in Qualified Opportunity Zone businesses may be excluded from capital gains tax entirely and thus face a zero percent. These provisions predominantly benefit wealthy investors; the average income of investors benefitting from Opportunity Zone tax breaks in 2019 was $1,083,766.[xxxii] While there is no public data on who benefits from the exclusion of income from the sale of QSBS, it is a safe bet that the vast majority of the exclusion accrues to high-wealth investors. In combination with the 21 percent corporate tax rate, the complete exclusion of tax on capital gains in these circumstances is unusually favorable to wealthy and sophisticated investors that can take advantage of these provisions.[xxxiii]

In addition to benefitting investors that own appreciating assets, the reduced rates on capital gains provides an incentive and opportunity for certain investment managers or business owners to characterize their compensation as a capital gain (a "carried interest") rather than wages, reducing the tax rate that would apply from 40.8 percent to 23.8 percent or even 0 percent for private equity or venture capital fund managers whose funds invest in QSBS.

The low rates that apply to capital gains directly affect the concentration of wealth. Retirement savings and unrealized capital gains are an important share of the wealth of Americans. Taxes on these assets are deferred, of course, until the assets are liquidated. The bottom 90 percent of taxpayers, who hold their wealth in the form of pre-tax pensions and retirement accounts, will be taxed at ordinary income tax rates when they draw on their pensions in retirement. In contrast, a large share of the assets of wealthy taxpayers is in the form of unrealized capital gains, which are taxed at lower rates (or not at all if held until death), which tends to increase the true concentration of wealth among the highest-wealth households. This means that the reductions in rates on capital gains enacted over time have led to increasing inequality in after-tax wealth.[xxxiv]

Conclusion

In summary, the current tax system provides more advantageous treatment to high-income, high-wealth households in historical comparison or relative to the treatment of other income disproportionately earned by less-wealthy households, like wages. As a result, the tax system does less to reduce inequality in income and wealth than it has in the past or it could under viable alternative tax regimes.

This favorable treatment of high-income, high-wealth taxpayers is not justified on economic grounds. Scaling back reductions in the tax rates that apply to corporate and pass-through business, eliminating the exclusion of capital gains held until death ("stepped up basis"), raising the tax rates on capital gains and eliminating tax expenditures for specific capital gains, and funding enforcement to ensure taxes levied are actually collected would be effective ways to reduce inequality in after-tax income and wealth.

[i] Congressional Budget Office. 2020. “The Distribution of Household Income, 2017.” https://www.cbo.gov/publication/56575
[ii] Bricker, Jesse, Sarena Goodman, Kevin B. Moore, and Alice Henriques Volz with assistance from Dalton Ruh. 2020. “Wealth and Income Concentration in the SCF: 1989–2019.” FEDS Notes. Board of Governors of the Federal Reserve System. https://www.federalreserve.gov/econres/notes/feds-notes/wealth-and-income-concentration-in-the-scf-20200928.htm
[iii] Wolff, Edward. 2021. “Household Wealth Trends in the United States, 1962 to 2019: Median Wealth Rebounds... But Not Enough.” NBER Working Paper 28383. https://www.nber.org/papers/w28383 and Congressional Budget Office 2020.
[iv] Congressional Budget Office 2020.
[v] Smith, Matthew, Owen Zidar, and Eric Zwick. 2020. “Top Wealth in America: New Estimates and Implications for Taxing the Rich.” http://www.ericzwick.com/wealth/wealth.pdf
[vi] Looney, Adam, Jeff Larrimore, and David Splinter. 2020. Middle-Class Redistribution: Tax and Transfer Policy for Most Americans.” The Aspen Economic Strategy Group. https://www.economicstrategygroup.org/wp-content/uploads/2020/12/3.-Looney.pdf
[vii] Meyer, Bruce D. and James X. Sullivan, 2012. "Winning the War: Poverty from the Great Society to the Great Recession," Brookings Papers on Economic Activity, Economic Studies Program, The Brookings Institution, vol. 43(2 (Fall)), pages 133-200. And “Consumption and Income Poverty Dashboard” http://povertymeasurement.org/dashboard/ Statistics refer to “Consumption Poverty” indexed using the CPI-U-RS.
[viii] Center on Poverty and Social Policy. 2021. “Historical Supplemental Poverty Measure Data.” https://www.povertycenter.columbia.edu/historical-spm-data-reg
[ix] Parolin, Zachary, Sophie Collyer, Megan A. Curran, and Christopher Wimer. 2021.” The Potential Poverty Reduction Effect of the American Rescue Plan.” Center on Poverty and Social Policy. Link.
[x] Center on Budget and Policy Priorities. 2019. “Policy Basics: The Earned Income Tax Credit.” https://www.cbpp.org/research/federal-tax/the-earned-income-tax-credit
[xi]Meyer, Bruce, Derek Wu, Grace Finley, Patrick Langetieg, Carla Medalia, Mark Payne & Alan Plumley. 2020. “The Accuracy of Tax Imputations: Estimating Tax Liabilities and Credits Using Linked Survey and Administrative Data.” NBER Working Paper 28229. https://www.nber.org/papers/w28229
[xii] Airi, Nikhita and Robert McClelland. 2020. “Effective Income Tax Rates Have Fallen For The Top One Percent Since World War II. Tax Policy Center. TaxVox. https://www.taxpolicycenter.org/taxvox/effective-income-tax-rates-have-fallen-top-one-percent-world-war-ii and “Effective tax rate by AGI, 1935-2015” https://www.taxpolicycenter.org/statistics/effective-tax-rate-agi-1935-2015
[xiii] Saez, Emmanuel, and Gabriel Zucman. 2019. The Triumph of Injustice: How the Rich Dodge Taxes and How to Make them Pay. New York: W. W. Norton.
[xiv] Feiveson, Laura and John Sabelhaus. 2018. “How Does Intergenerational Wealth Transmission Affect Wealth Concentration?” FEDS Notes. Board of Governors of the Federal Reserve System. https://www.federalreserve.gov/econres/notes/feds-notes/how-does-intergenerational-wealth-transmission-affect-wealth-concentration-20180601.htm
[xv] U.S. Treasury, Office of Tax Analysis. 2014. “Tax Expenditure for Exclusion of Capital Gains at Death.” https://home.treasury.gov/system/files/131/Step-Up-Basis-2014.pdf
[xvi] U.S. Treasury, Office of Tax Analysis. 2020. “Tax Expenditures.” https://home.treasury.gov/system/files/131/Tax-Expenditures-2021.pdf
[xvii] Looney, A. and Moore, K.B. 2016. “Changes in the Distribution of After-Tax Wealth in the US: Has Income Tax Policy Increased Wealth Inequality?” Fiscal Studies, 37: 77-104. https://doi.org/10.1111/j.1475-5890.2016.12089.
[xviii] Executive Office of the President and U.S. Treasury Department. 2015. “The President’s Plan to Help Middle-Class and Working Families Get Ahead.” https://obamawhitehouse.archives.gov/sites/default/files/docs/middle_class_and_working_families_tax_report.pdf
[xix] Tax Policy Center 2016. T16-0277 - Current Law Distribution of Gross Estate and Net Estate Tax by Size of Gross Estate, 2017. https://www.taxpolicycenter.org/model-estimates/baseline-estate-tax-tables-nov-2016/t16-0277-current-law-distribution-gross-estate

[xx] Smith, Matthew, Owen Zidar, and Eric Zwick. 2020.
[xxi] Kopczuk, Wojciech, and Eric Zwick. 2020. "Business Incomes at the Top." Journal of Economic Perspectives, 34 (4): 27-51. https://pubs.aeaweb.org/doi/pdfplus/10.1257/jep.34.4.27
[xxii] Cooper, Michael, John McClelland, James Pearce, Richard Prisinzano, Joseph Sullivan, Danny Yagan, Owen Zidar, and Eric Zwick. 2015. "Business in the United States: Who Owns It and How Much Tax Do They Pay?" U.S. Treasury, Office of Tax Analysis Working Paper 104. https://home.treasury.gov/system/files/131/wp-104.pdf
[xxiii] Nelson, Susan C. 2016. "Paying Themselves: S Corporation Owners and Trends in S Corporation Income, 1980-2013. U.S. Treasury, Office of Tax Analysis Working Paper 107. https://home.treasury.gov/system/files/131/wp-107.pdf and Richard Prisinzano, Jason DeBacker, John Kitchen, Matthew Knittel, Susan Nelson and James Pearce. 2016. "Methodology to Identify Small Businesses." Office of Tax Analysis Technical Paper 4 (Update). https://home.treasury.gov/system/files/131/TP4-Update.pdf
[xxiv] Income earned by corporation subject to the corporate tax faces a maximum statutory rate of 39.8 percent if its income is subject both to the 21 percent corporate rate and immediately distributed as dividends to taxpayers facing a 23.8 percent dividend rate. In practice, however, the effective rate is lower because a majority of corporate shares are held in non-taxable accounts (like retirement accounts and pensions, or by non-US taxpayers), or because the income is retained in the company rather than paid out to stock owners. In the latter case, the effective tax rate is low because investors can defer the tax or avoid it entirely.
[xxv] Cooper, Michael, John McClelland, James Pearce, Richard Prisinzano, Joseph Sullivan, Danny Yagan, Owen Zidar, and Eric Zwick. 2015.
[xxvi] Smith, Matthew, Danny Yagan, Owen Zidar, Eric Zwick. 2021. "The Rise of Pass-Throughs and the Decline of the Labor Share." http://www.ericzwick.com/labshare/labshare.pdf
[xxvii] Office of Tax Analysis (2016). "Gaps between the Net Investment Income Tax Base and the Employment Tax Base. https://home.treasury.gov/system/files/131/NIIT-SECA-Coverage.pdf
[xxviii] Goodman, Lucas, Katherine Lim, Bruce Sacerdote and Andrew Whitten. "Simulating the 199A Deduction for Pass-through Owners." Office of Tax Analysis Working Paper 118. https://www.treasury.gov/resource-center/tax-policy/tax-analysis/Documents/WP-118.pdf
[xxix] U.S. Treasury 2015. "Treasury's Distribution Methodology and Results" Office of Tax Analysis. https://www.treasury.gov/resource-center/tax-policy/tax-analysis/Documents/Summary-of-Treasurys-Distribution-Analysis.pdf or Joint Committee on Taxation. 2013. "Modeling the Distribution Of Taxes On Business Income." JCX-14-13.https://www.jct.gov/publications/2013/jcx-14-13/
[xxx] Gale, William G. and Claire Haldeman "The Tax Cuts and Jobs Act: Searching for Supply-Side Effects" Forthcoming.
[xxxi] Tax Policy Center 2020. "T20-0137 - Tax Benefit of the Preferential Rates on Long-Term Capital Gains and Qualified Dividends, Baseline: Current Law, Distribution of Federal Tax Change by Expanded Cash Income Percentile, 2019." https://www.taxpolicycenter.org/model-estimates/individual-income-tax-expenditures-april-2020/t20-0137-tax-benefit-preferential
[xxxii] Kennedy, Patrick and Harrison Wheeler. 2021." Neighborhood-Level Investment from the U.S. Opportunity Zone Program: Early Evidence." https://static1.squarespace.com/static/57a3c0fcd482e9189b09e101/t/607893b915858d7bd0d198ba/1618514881004/oz_kennedy_wheeler.pdf
[xxxiii] Avi-Yonah, Reuven S. "The Games They Will Play: Tax Games, Roadblocks, and Glitches Under the 2017 Tax Legislation." David Kamin et al., co-authors. Minn. L. Rev. 103, no. 3 (2019): 1439-521. https://www.minnesotalawreview.org/wp-content/uploads/2019/02/5Kamin_FINAL.pdf
[xxxiv] Looney and Moore 2015.