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After Paying Ultra-High Net Worth Wealth
Taxes, How Much Would Billionaires Have
Left to Live on?

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After Paying Ultra-High Net Worth Wealth Taxes, How Much Would Billionaires Have Left to Live on?

Michael Simkovic

Abstract

Part I: Billionaire Taxes, <https://ssrn.com/abstract=3326615>.

Part II: Taxes Spending and Innovation, <https://ssrn.com/abstract=3335386>.

How much can a passive investor with a high-risk tolerance earn on his or her capital?

If history since the end of World War 2 is any guide, between 11 and 14 percent per year before taxes and inflation. After inflation, this comes to around 7 to 10 percent. With good tax planning, the rate of return net of income taxes, inflation, and fees could average around 6.5 to 9.5 percent per year.

A family with \$100,000,000 (\$100 million) in wealth would pay an additional \$1 million in taxes per year under Senator Elizabeth Warren's ultra-high-net-worth tax proposal. That would reduce their after-tax disposable income to \$5.5 million to \$8.5 million per year.

To put this into context, according to the Survey of Consumer Expenditures, households in the top 10 percent of income earned an average of \$189,000 after taxes and spent on average \$143,000 in 2017. Even after paying Warren's wealth tax, a household with \$100 million in assets could spend 38 to 59 times as much as a relatively high-income household.

A household with a \$100 million net-worth that lived modestly and spent only

as much as the average household in the top 10 percent of income could reinvest \$5.36 million to \$8.36 million per year, growing their net-worth by 5.36% to 8.36% per year, on average. This is \$5.32 million to \$8.32 million more in annual savings than the average top-10 percent household.

The analysis above implies that Warren's proposed 2% to 3% ultra-high net-worth wealth tax would only slightly slow the increase in high-end wealth inequality but would not halt or reverse it. At a 5.36% return after taxes, inflation, and personal consumption, a fortune would quadruple in value every 27 years, and would therefore not be dissipated by typical family growth rates. (At 8.36%, it would quadruple in value every 18 years).

Under Warren's proposal, a household with \$1 billion in wealth would pay an additional \$19 million in taxes per year. After paying the wealth tax, other taxes, and reinvesting to stay ahead of inflation, our billionaire family would be still be able to spend approximately \$46 million to \$76 million per year, forever, without anyone in the family having to work a job. Every extra billion in wealth (above \$1 billion) would translate into an additional \$35 million to \$65 million in disposable income per year, after taxes and fees and reinvesting to stay ahead of inflation.

If policy makers wanted to cap personal wealth from purely passive investing at \$1 billion, but did not want to tax the first \$50 million in wealth, they would have to annually tax wealth above \$50 million at around 12%. Assuming effective enforcement, this would potentially generate somewhere in the vicinity of \$1 trillion in revenue per year. This is about enough to replace most payroll tax revenue and thereby give every worker in the country a double digit percentage pay raise on their first \$130,000 in earnings, or give every employer equivalent savings on labor costs.

A wealth tax of 5% to 10% per year would be similar to hurdle rates that are used to handicap hedge fund and private equity managers' incentive compensation, rewarding wealth managers only when they produce returns that exceed what they should be able to accomplish with minimal skill and little effort. A similar ultra-high net-worth wealth tax rate might help distinguish persistently talented investors, leaders, or entrepreneurs from those whose growing wealth is the result of past success and good luck.

In contrast to such starkly meritocratic policies, Warren's relatively modest 2%

above \$50 million and 3% above \$1 billion wealth tax would preserve the freedom and security that come with family wealth by making available to passively invested ultra-wealthy households millions or tens of millions of dollars every year.

**After paying ultra-high net worth wealth taxes,
how much would billionaires have left to live on?**

This is Part 3 in a series of articles about Senator Elizabeth Warren’s Ultra-High Net-worth tax proposal, which would tax personal fortunes above \$50 million at 2% annually and fortunes above \$1 billion at 3% annually.

Part 1, [Billionaire Taxes](#), explains how taxing ultra-high-net personal fortunes could help fund middle class tax relief, which would benefit the overwhelming majority of the electorate. Taxing wealth in this way is administratively feasible, constitutionally permissible, and would be more difficult to avoid than “alternatives” such as inheritance and capital gains taxes (which could supplement rather than replace an ultra-high net-worth tax).

Part 2, [Taxes, Innovation, and Spending](#), discusses how ultra-high net-worth taxes could increase the rate of innovation and economic growth if the tax revenue is used to fund some combination of middle-class tax relief and public investment programs.

Taxes on ultra-high net-worth personal fortunes could be used to fund public investment programs and middle-class tax relief that would boost the rate of innovation and economic growth, reduce taxes for most of the electorate, and decrease the dangers posed by concentrated power resulting from concentrated wealth.

Billionaire taxes (coupled with middle-class tax relief and/or public investment) are [efficient](#). Billionaire taxes are [administrable](#). Billionaire taxes—or something extremely similar—are constitutional. Perhaps, billionaire taxes are even [good for democracy](#) (at least to the extent that democracy is understood as a system in which policy reflects the preferences of a majority of citizens).¹

But are billionaire taxes fair?

In a series of articles, the [American Enterprise Institute](#), [The Economist](#), and others argue that such taxes are decidedly unfair because they would excessively burden extremely wealthy families by depriving them of all of the income, net of inflation, that they could expect to receive from their property.

¹ There are other views of democracy, such as a competition among pressure groups in which better organization, more resources, and access to and control over information can triumph over numerical superiority. Leaving normative considerations aside, the latter view may be a more accurate description of the United States.

These analyses of tax burdens are mistaken for two reasons. The first reason is that they overstate the tax base: Senator Warren’s tax proposal would [not tax the first \\$50 million of wealth](#), even for those with more than \$50 million.²

The second reason analyses claiming that ultra-high net worth taxes would deprive ultra-wealthy families of an income are incorrect is because these analyses dramatically underestimate the rate of return on capital that people with extremely high net worth— and therefore [high-risk tolerance](#) (see also [here](#))—can obtain using essentially [passive](#) investment strategies. Anti-tax analyses unrealistically assume that billionaires and ultra-millionaires would be so risk-averse as keep all of their money in low-yielding bonds.

In fact, people who are very rich invest [primarily in stocks](#) and other higher risk, higher return assets, and have strong [tax incentives to use leverage](#). Warren Buffett has famously said that he would advise his heirs to invest their inheritance [90 percent in a S&P 500 stock index](#) fund and 10 percent in bonds.

Buffet’s advice is pretty conservative for someone with billions of dollars. Wealthy individuals often use leverage both to [enhance returns](#) and for [tax planning purposes](#) (see Ed McCaffery on [“Buy. Borrow. Die.”](#)). Such investors hold more than 100 percent of their net worth in stock by borrowing money. Indeed, a recent finance paper claims that Buffett’s stock-market-beating returns can be [replicated](#) with a leveraged stock portfolio consisting of low-beta stocks.

How much can a passive investor with a high-risk tolerance earn on his or her capital?

If history since the end of World War 2 is any guide, between 11 and 14 percent per year before taxes and inflation. After inflation, this comes to around 7 to 10 percent. With good tax planning, the rate of return net of income taxes, inflation, and fees could average around 6.5 to 9.5 percent per year.³ Details of this analysis are

² The tax would only fall on the portion of net worth above \$50,000,000 (\$50 million). Thus, a household with a net worth of \$60,000,000 (\$60 million) would only pay taxes on \$10 million of wealth and would have \$50 million of wealth which was not taxed. A household with \$2 billion of wealth would only pay 0% on the first \$50 million, 2% on the next \$950 million, and 3% on the last billion.

³ Taxes can be minimized by avoiding realizing gains (for example by using derivatives rather than sales), harvesting losses, and by using leverage and an interest deduction to offset any dividends and gains. Assuming 0.5% of returns are lost to fees and taxes is probably too high (i.e., returns net of taxes and fees are probably higher than this analysis assumes). Vanguard’s S&P 500 index fund has a [tax cost ratio](#) around 0.57% *without* any tax loss harvesting or use of leverage, and an expense ratio of 0.04% (0.01% for those with \$5 billion or more). Wealthfront, a “roboadvisor” which charges 0.25% per year for its services, estimates that [tax loss harvesting](#) can enhance returns by around 0.58% to 1.07% per year (or 2.15% to 2.7% for those with [broader](#) stock holdings), effectively bringing returns after taxes and after fees in line with returns *before* taxes or fees.

provided below.⁴ [Underlying](#) data is available here. An independent analysis that comes to similar conclusions during a slightly different time frame and using slightly different methods is available [here](#).

Years	Measure	Annual returns (CAGR)
1945-2018	Value-Weighted S&P 500 Return-incl. dividends	11.27%
1945-2018	30-year bond returns	5.53%
1945-2018	90% S&P 500	10.84%
1945-2018	Leveraged portfolio (130% stock)	12.39%
1945-2018	Leveraged portfolio (150% stock)	12.94%
1945-2018	Leveraged portfolio (200% stock)	13.65%
1945-2018	CPI / Inflation	3.69%
1945-2018	Real Value-weighted S&P500 returns including dividends	7.58%
1945-2018	Real returns 90% Stock, 10% bonds	7.15%
1945-2018	Real returns 130% Stock (leveraged portfolio)	8.70%
1945-2018	Real returns 150% Stock (leveraged portfolio)	9.25%
1945-2018	Real returns 200% Stock, (1:1 leveraged portfolio)	9.96%

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⁴ Long term data on stock returns (including dividends), bond returns, and inflation (CPI) comes from the Center for Research in Securities Prices (CRSP). Returns are geometric averages (i.e., compound annual growth rates). Prior to 1957, stock returns are based on the S&P 90 stock index rather than the S&P 500. All bond returns and borrowing costs are assumed to be equal to the 30-year treasury. Using the 10-year treasury does not appreciably alter the result. The maximum leverage ratio assumed (the 200% stock portfolio) is 1:1 (i.e., for every dollar invested, the investor borrows another dollar). While private investors probably cannot borrow at the risk-free rate, investors who can offer ample assets as security may be capable of borrowing for a few basis points more. Investors can also hold down borrowing costs by using some shorter-term debt. Indeed, the highest-grade corporate debt with a maturing of less than 3 years currently has a [lower yield](#) than 10-year treasuries and usually has a lower yield than 30-year treasuries.

⁵ In the table, a 130% stock portfolio means that for every \$1 million the investor has, he borrows \$300,000 and invests a total of \$1.3 million in the stock market. This comes with interest expense, but since the returns on the stock market are usually higher than the cost of debt, it results in higher returns. (It also increases the volatility of returns). A 200% stock portfolio refers to borrowing \$1,000,000 for every \$1,000,000 in net-worth and investing \$2 million in the stock market.

A family with \$100,000,000 (\$100 million) in net worth would therefore have an income of around \$6.5 million to \$9.5 million per year from purely passive investments, after paying taxes and reinvesting to stay even with inflation.

They could spend an average of \$6.5 million to \$9.5 million every single year. Forever. Without anyone in the family working a job. And, in inflation-adjusted terms, their wealth would not decline, although they would be exposed to periodic fluctuations in stock prices.

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To put this into context, according to the [Survey of Consumer Expenditures](#), households in the top 10 percent of income earned an average of \$189,000 after taxes and spent on average \$143,000 in 2017. Even after paying Warren's wealth tax, a household with \$100 million in assets could still spend 38 to 59 times as much as a relatively high-income household.

A household with a \$100 million net-worth that lived modestly and spent only as much as the average household in the top 10 percent of income could reinvest \$5.36 million to \$8.36 million per year, growing their net-worth by 5.36% to 8.36% per year, on average. This is \$5.32 million to \$8.32 million more in annual savings than the average top-10 percent household.

Under the same logic, a family with \$1 billion in net worth could spend between \$65 million and \$95 million a year (after paying income taxes, fees, and reinvesting to stay even with inflation, but before wealth taxes).

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The analysis above assumes that real returns on capital (net of inflation) in the future will be similar to those between 1945 and 2018, and that effective income taxes (other than wealth taxes) will remain essentially unchanged, at least for those with access to good tax planning.

These assumptions could prove wrong. Indeed, many people believe that going forward, equity risk premiums could fall to around [3 to 4 percent above the risk-free rate](#) (i.e., stock returns would equal the yield on treasuries plus 3 to 4 percent,

without leverage). But even in relatively unfavorable investment climates, well-advised billionaires would still earn more than ten million dollars in passive income.

At a real, post-income tax annual return of 3% percent (and without using leverage) anyone with a net worth of a billion dollars or more would still be able to consume \$11,000,000 per year. Under reasonable assumptions, with 1:1 leverage, this could be increased to \$26,000,000 for a billionaire, and another \$15,000,000 for each additional billion dollars of net worth above the first billion.⁶

If this passive income proves insufficient to fund the lifestyles of ultra-high net-worth households, members of the household could supplement their incomes with careers that pay wages. They would have ample time to do so: the investment strategies considered above are passive and could be executed on their behalf by advisors.

The analysis above implies that Warren's proposed 2% to 3% ultra-high net-worth wealth tax would only slightly slow the increase in high-end wealth inequality but would not halt or reverse it. At a 5.36% return after taxes, inflation, and personal consumption, a fortune would quadruple in value every 27 years, and would therefore not be dissipated by typical family growth rates. (At 8.36%, it would quadruple in value every 18 years).

If policy makers wanted to cap personal wealth from purely passive investing at \$1 billion, but did not want to tax the first \$50 million in wealth, they would have to annually tax wealth above \$50 million at around 12%.⁷ Assuming effective enforcement, this would potentially generate somewhere in the vicinity of \$1 trillion in revenue per year. This is about enough to replace most [payroll tax](#) revenue and thereby give every worker in the country a double digit percentage pay raise on their first \$130,000 in earnings, or give every employer equivalent savings on labor costs.⁸

A wealth tax of 5% to 10% per year would be similar to [hurdle rates](#) that are used to handicap hedge fund and private equity managers' incentive compensation, rewarding

⁶ This assumes 3% inflation, 4.5% nominal interest 6% nominal after tax unlevered returns (3% real).

⁷ Again, this assumes returns similar to those in the 1945-2018 period for a 200% S&P 500 equity portfolio (1:1 leverage) with good tax planning. A more highly leveraged or riskier portfolio would potentially require even higher tax rates to prevent it from growing.

⁸ This assumes effective enforcement and exit taxes to prevent capital flight. It is calculated based on replacement of current payroll tax revenues. Wealth taxes would not necessarily raise enough revenue to fully cover cost increases for Social Security and Medicare that are expected in the coming years (and which would not be fully covered by existing revenue sources). High wealth tax revenues also might not be sustainable in the long run because, as noted above, at a 12% wealth tax rate above \$50 million, many current billionaires' fortunes would eventually decline to between \$50 million and \$1 billion. However, economic growth from higher wages or reduced labor costs could potentially generate additional tax revenue. A somewhat lower wealth tax rate—higher than the rates Warren proposed but lower than 12%—could be sustainable without strong assumptions about growth and could still fund substantial reductions in payroll taxes.

wealth managers only when they produce returns that exceed what they should be able to accomplish with minimal skill and little effort. A similar ultra-high net-worth wealth tax rate might help distinguish persistently talented investors, leaders, or entrepreneurs from those whose growing wealth is the result of past success and good luck.

In contrast to such starkly meritocratic policies, Warren's relatively modest 2% above \$50 million and 3% above \$1 billion wealth tax would preserve the freedom and security that come with family wealth by making available to passively invested ultra-wealthy households millions or tens of millions of dollars every year.

Some ultra-wealthy households may have grown accustomed to a lifestyle that requires higher levels of expenditures. Specialists in [marketing](#) to the ultra-wealthy note the popularity of private jets, prestige real-estate holdings and mega-yachts, each of which can cost tens of millions of dollars to purchase and millions per year to maintain.

An ultra-wealthy family could consume significantly more each year if it were willing to allow its wealth to decline over time in real terms, just as most middle-class households consume their wealth to fund their retirements and most workers see their earning capacities deteriorate as they age and lose the ability to work.

Taxing billionaires need not be a question of how much will be invested, but rather should be a question of how the ownership of financial assets will be [distributed](#). The revenue that is generated from taxing ultra-high net-worth fortunes under Warren's plan should be used to provide middle class tax relief and to support public investment programs.

Fundamentally, we are asking whether we would like more resources allocated toward [ultra-luxury consumption](#) or toward education, healthcare, basic scientific research, middle class housing, and infrastructure.

This is not a choice between [innovation](#) and equality, or between freedom and fairness. The poor and middle class do not enjoy paying heavy taxes any more than the rich. Middle-class engineers, scientists, professionals, business-people and investors play as great a role in innovation as high net-worth households. Indeed, there is strong evidence that [increasing wealth reduces work effort](#) (see also [here](#)), especially at very high levels. In contrast to wealth, [increasing wages increases work effort](#). Taxing wealth to fund lower payroll and income taxes could therefore *increase* productivity.

We are deciding whether the after-tax distribution of wealth will encourage real estate developers to build and sell one \$50 million vacation home to one family which will occupy it for a few weeks per year (and could more affordably rent hotel space), or whether the real estate developer will find it more profitable to build 100 middle class homes for 500 hardworking people who are now living in cramped quarters. We

are choosing between more spacious private jets or public schools with [smaller class sizes](#).

It is not hard to understand why Warren's ultra-high net worth wealth tax is [popular](#) with the electorate. Supporters of ultra-high net worth taxes currently include [more than 60 percent](#) of the U.S. electorate and [a majority](#) of registered Republicans (see also [here](#)). This support is in spite of generally antagonistic press coverage.⁹

Some European Countries have repealed broad based wealth taxes that raised serious fairness concerns and were distinct from Warren's proposal. For example, Sweden taxed household wealth starting at a relatively low threshold--[around \\$200,000 per year](#) in USD. Taxing wealth at this lower threshold seemed to both impose hardship on those with only slightly above average means, and waste administrative resources pursuing many people, each for a small amount of revenue.

The lesson of European experience with wealth taxes is that such taxes should be limited to a relatively small segment of the population with ultra-high net-worth.

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⁹ New York Times and Wall Street Journal opinion columnists claim that ultra-high net worth taxes are not an efficient approach to [fund public investment and provide middle-class tax relief](#), but rather are an effort to “abolish”, “tear down”, “vilify”, and “kill” billionaires and are driven by “deep hostility” from “radicals” and “socialists” ([here](#) and [here](#) and [here](#)). The New York Times column cited above [asserts](#) that “ The progressive idea . . . that people with vastly more wealth . . . wield vastly disproportionate political power [is] based more in abstract theorizing than empirical analysis.” The underlying theory that a small, well-resourced, and well-organized group can capture the political process to the disadvantage of a more numerous and less-well organized majority comes from [George Stigler](#), a conservative University of Chicago economist and disciple of Milton Friedman. Media organizations, think tanks and advocacy groups are typically [owned, funded or subsidized](#) by ultra-high net worth individuals and have a track record of promoting their sponsors' interests (see [here](#), [here](#), [here](#), [here](#), [here](#), and [here](#) for empirical studies).