Taxes on Capital and Savings

131: Public Economics
Emmanuel Saez

Berkeley
MOTIVATION

1) Capital income is about 25-30% of national income (labor income is 70-75%) but distribution of capital income is much more unequal than labor income.

   Capital income inequality is due to differences in savings behavior but also inheritances received.

   ⇒ Equity suggests it should be taxed more than labor.

2) Capital Accumulation correlates strongly with growth [although causality link is not obvious] and capital accumulation might be sensitive to the net-of-tax return.

   ⇒ Efficiency cost of capital taxation might be high.
MOTIVATION

3) Capital more mobile internationally than labor

Key distinction is residence vs. source base capital taxation:

Residence: Tax based on residence of owner of capital.

Most individual income tax systems are residence based (with credits for taxes paid abroad)

Source: Tax based on location of capital

Real estate property tax and corporate income tax are source based

4) Capital taxation is extremely complex and provides many tax avoidance opportunities particularly for multinational firms
FACTS ABOUT WEALTH

Definition: Capital Income = Income generated by wealth

Wealth arises from expected future income and value of assets

Private wealth includes real estate (land+buildings), corporate and business equity, fixed claimed assets (bonds+deposits), net of debts (mortgage, student loans, consumer credit)

Aggregate US Private Wealth $\approx 6 \times $Annual National Income (big increase in recent years)

Total wealth reflects both capital stock accumulated through savings and pure price effects

Example 1: house can increase in value because it is improved (capital) or because local prices go up (pure price effect)

Example 2: greater monopoly power makes a business more valuable to owners (but at the expense of consumers)

Recent increase in US private wealth mostly due to price effects
This figure depicts the share of total household wealth relative to national income. Source: Piketty, Saez, and Zucman (2018).
**Interpretation:** Public wealth is the sum of all financial and non-financial assets, net of debts, held by governments. Public wealth dropped from 60% of national income in 1970 to -106% in 2020 in the UK. **Sources and series:** wir2022.wid.world/methodology, Bauluz et al. (2021) and updates.
Authors’ computations using country national accounts. Private wealth = non-financial assets + financial assets - financial liabilities (household & non-profit sectors)

Source: Piketty and Zucman ‘13
The changing nature of national wealth, France 1700-2010

National wealth = agricultural land + housing + other domestic capital goods + net foreign assets

The changing nature of national wealth, US 1770-2010 (incl. slaves)

National wealth = agricultural land + housing + other domestic capital goods + net foreign assets

Source: Piketty and Zucman '13
FACTS ABOUT WEALTH AND CAPITAL INCOME

Wealth = \( W \), Capital Income = \( rW \) with \( r \) return, Capital gain = \( qW \) with \( q \) price appreciation. Total wealth return is \( r + q \).
(examples: crypto has \( r = 0 \), savings account has \( q = 0 \))

\[
W_t = W_{t-1} + (r_t + q_t) \cdot W_{t-1} + E_t + I_t - C_t
\]

where \( W_t \) is wealth at age \( t \), \( C_t \) is consumption, \( E_t \) labor income earnings (net of taxes), \( r_t + q_t \) is the average (net) total rate of return on wealth, and \( I_t \) net inheritances (gifts+inheritance received - gifts given).

Differences in Wealth and Capital income due to:
1) Age
2) past earnings, and past saving behavior \( E_t - C_t \) [life cycle wealth]
3) Net Inheritances received \( I_t \) [transfer wealth]
4) Rates of return from income \( r_t \) and price appreciation \( q_t \)
Wealth Inequality (Saez and Zucman ’16)

Wealth inequality is very large (always much higher than income inequality)

In the US in 2021: Top 1% wealthiest households get 40% of total wealth, Next 9% get about 35%, next 40% get 25%, bottom 50% get about 0%

Wealth inequality decreases from 1929 to 1980: wealth democratization due to rise in homeownership and pensions

Wealth inequality increases sharply since 1980 fueled by increases in income inequality and savings inequality [bottom 90% saves zero in net since 1990]

US public underestimates extent of wealth inequality and thinks the ideal wealth distribution should be a lot more equal [Norton-Ariely ’11]
The figure depicts the share of total household wealth owned by bottom 90% and top 0.1% obtained by capitalizing income tax returns (Piketty, Saez and Zucman 2018, updated to 2019). The unit of analysis is the family.
Wealth During the Pandemic

After a very short dip in early 2020, wealth per adult (defined as the value of all assets owned minus debts) boomed during the pandemic. As shown in the graph below, this wealth growth was higher for the rich than for the middle class.

Interested in further investigating wealth during the pandemic? Click on this link to interact with a fully customizable version of this graph.

Wealth graph options  Reset

<table>
<thead>
<tr>
<th>Group</th>
<th>Growth (%)</th>
<th>Gain ($)</th>
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</thead>
<tbody>
<tr>
<td>Top 0.01%</td>
<td>39.6%</td>
<td>$159M</td>
</tr>
<tr>
<td>Top 0.1%</td>
<td>36.7%</td>
<td>$27M</td>
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<td>Top 1%</td>
<td>33.3%</td>
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<td>Top 10%</td>
<td>29.4%</td>
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<td>Middle 40%</td>
<td>25.8%</td>
<td>$74k</td>
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<td>Bottom 50%</td>
<td>288.3%</td>
<td>$5.9k</td>
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<tr>
<td>Total</td>
<td>29%</td>
<td>$129k</td>
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</tbody>
</table>
Wealth Share of the top 400 wealthiest Americans 
(top 0.00025%) 
October 1st, 2021
Wealth of the top 400 wealthiest Americans (top 0.00025%) (% of US GDP)

October 1st, 2021
agreed that such redistribution should take the form of moving wealth from the top quintile to the bottom three quintiles. In short, although Americans tend to be relatively more favorable toward economic inequality than members of other countries (Osberg & Smeeding, 2006), Americans’ consensus about the ideal distribution of wealth within the United States is high.

Fig. 2. The actual United States wealth distribution plotted against the estimated and ideal distributions across all respondents. Because of their small percentage share of total wealth, both the “4th 20%” value (0.2%) and the “Bottom 20%” value (0.1%) are not visible in the “Actual” distribution.
FACTS ON US CAPITAL INCOME TAXATION

1) **Corporate Income Tax** (fed+state) on profits of corporations [complex rules with many industry specific provisions]: effective tax rate only 16% of corporate profits in 2018

2) **Individual Income Tax** (fed+state): taxes many forms of capital income
   
   Realized capital gains and dividends receive preferential treatment (to lower double taxation of corporate profits)

   Imputed rent of home owners and returns on pension funds are exempt

3) **Estate tax**: tax on very large estates (40% tax above $11m) bequeathed to heirs (small and poorly enforced)

4) **Property taxes** (local) on real estate (old tax):
   
   Tax varies across jurisdictions. About 0.5% of market value on average

5) **Wealth tax** on total net worth of rich families (does not currently exist, proposed by Warren and Sanders, and in CA)
Average tax rates by income group in 2018 (% of pre-tax income)

- Corporate & property taxes
- Consumption taxes
- Payroll taxes
- Individual income taxes
- Estate tax

Income groups: P0-10, P10-20, P20-30, P30-40, P40-50, P50-60, P60-70, P70-80, P80-90, P90-95, P95-99, P99-99.9, P99.9-top 400, Top 400
Adding old Warren wealth tax (2% above $50m, 3% above $1b) with 15% avoidance/evasion rate (Saez-Zucman)
LIFE CYCLE VS. INHERITED WEALTH

Economists divide existing wealth into 2 categories:

1) **Life-cycle wealth** is wealth from savings earlier in your life

2) **Inherited wealth** is wealth from inheritances received

Distinction matters for taxation because individuals are responsible for life-cycle wealth but not inherited wealth

Inherited wealth used to be very large in Europe (before World-War I), became small in post-World War II period, but is growing in recent decades (especially in Europe) [Piketty’ 14]

Same trend in the US but less pronounced but poor data quality (Alvaredo-Piketty-Garbinti ’17)

Piketty ’14: return on wealth bigger than growth rate \((r > g)\)

\[ \Rightarrow \text{wealth concentration and inherited wealth increases} \]
Inheritance share was rising fast in the late 19th and early 20th centuries. The shocks caused by the 1930s and the Second World War led to a downturn, but much less pronounced than in Europe, so the US inheritance share became higher than in Europe by the mid-20th century. In recent decades, the inheritance share seems to have increased substantially in the USA. However, there is significant uncertainty about the exact levels and trends, due in particular to the limitations of US estate tax data (which covers only a small fraction of all decedents, so it cannot be used to produce aggregate series).

We should also emphasize that there are significant variations within Europe. For simplicity, we define ‘Europe’ in Figure 1 as the average of France, Germany and the UK. We will see later that France and Germany follow a particularly marked U-shaped pattern, while the UK pattern is in some ways closer to the US evolution.

In brief, our general conclusion is that there are substantial variations in the inheritance share over time and across countries, and that one should be careful not to interpret averages over one or two decades as steady-state outcomes. Wealth accumulation takes time: it spans over several generations, so it is important to take a very-long-run perspective on these issues. Modigliani’s conclusions—moderated with a large majority of wealth coming from lifecycle savings—might have been right for the immediate postwar period (though somewhat exaggerated). But the Kotlikoff–Summers estimates—with inheritance accounting for a significant majority of wealth—appear to be closer to what we generally observe in the long run, in both the 19th and early 20th centuries, and in the late 20th and early 21st centuries.

Regarding the very long run, we stress that there are many different possible steady-state levels for the inheritance share. As we will see, there are several forces that tend to imply that low-growth societies also have higher inheritance shares. But other effects can go in the opposite direction. Depending on the evolution of demographic parameters, 30% of wealth in aggregate wealth accumulation was over 70% in Europe in 1900–10. It fell abruptly following 1914–45 shocks, down to 40% in the 1970–80 period. It was back to about 50–60% (and rising) in 2000–10. The US pattern also appears to be U-shaped but less marked, and with significant uncertainty regarding recent trends, due to data limitations.

**Figure 1.** Share of inherited wealth, Europe and the USA 1900–2010.

*Notes*: Simplified definitions using inheritance vs. saving flows; approximate lower-bound estimates. The inheritance share in aggregate wealth accumulation was over 70% in Europe in 1900–10. It fell abruptly following 1914–45 shocks, down to 40% in the 1970–80 period. It was back to about 50–60% (and rising) in 2000–10. The US pattern also appears to be U-shaped but less marked, and with significant uncertainty regarding recent trends, due to data limitations.

Source: Alveredo-Garbinti-Piketty '17
LIFE-CYCLE MODEL

Individual lives for 2 periods, works $l$, earns $wl$, consumes $c_1$ in period 1, consumes $c_2$ in period 2:

$$U = u(c_1, l) + \delta \cdot v(c_2)$$

Start with case with no taxes

Savings $s = w \cdot l - c_1$, $c_2 = (1 + r) \cdot s$. Capital income $r \cdot s$

Intertemporal budget:

$$c_1 + \frac{c_2}{1 + r} = wl$$

Price of consumption in period 2 is $1/(1 + r)$ “discounted” by rate of return

Present discounted value (PDV) of consumption $=$ PDV of earnings
TAXES IN LIFE-CYCLE MODEL

1) Budget with consumption tax at rate $t_c$:

$$(1 + t_c)[c_1 + c_2/(1 + r)] = wl$$

Budget with labor income tax at rate $\tau_L$:

$$c_1 + c_2/(1 + r) = (1 - \tau_L)wl$$

2) Consumption and labor income tax are equivalent if

$$1 + t_c = 1/(1 - \tau_L)$$

Both taxes distort only labor supply and not savings

But timing of taxes different: labor taxes are paid early in life while working but consumption taxes paid throughout life
TAXES IN LIFE-CYCLE MODEL

3) With capital income tax at rate $\tau_K$: 
\[ c_2 = (1 + r(1 - \tau_K)) \cdot s \Rightarrow \]
\[ c_1 + c_2 / (1 + r(1 - \tau_K)) = w l \]
$
\tau_K$ distorts only savings choice (and not labor supply)

4) With comprehensive income tax $\tau$ on both labor and capital income: 
\[ c_1 = w(1 - \tau)l - s, \quad c_2 = (1 + r(1 - \tau))s \]
\[ c_1 + c_2 / (1 + r(1 - \tau)) \leq (1 - \tau)w l \]
$\tau$ distorts both labor supply and savings

$\tau$ imposes “double” tax: on (1) earnings AND on (2) savings
EFFECT OF CAPITAL TAX ON SAVINGS

Consider simpler model (fixed earnings $w$ in period 1)

$$\max_{c_1,c_2} u(c_1) + \delta \cdot u(c_2) \quad \text{subject to} \quad c_1 + \frac{c_2}{1 + r(1 - \tau_K)} = w$$

Recall that $c_1 = w - s$ and $c_2 = [1 + r(1 - \tau_K)] \cdot s$ [draw graph]

Suppose $\tau_K$ increases and hence $1/[1 + r(1 - \tau_K)] \uparrow$

1) **Substitution effect:** price of $c_2$ up $\Rightarrow$ $c_2$ decreases, $c_1$ increases $\Rightarrow$ savings $s = w - c_1$ decrease

2) **Income effect:** consumer is poorer $\Rightarrow$ both $c_1$ and $c_2$ decrease $\Rightarrow$ savings $s$ increase

Total net effect is theoretically ambiguous $\Rightarrow \tau_K$ has ambiguous effects on $s$
Life cycle savings and taxes theory

\[ w(1+r) \]
\[ c_2 \text{ consumption while old} \]
\[ c_2^* \]
\[ c_1^* \]
\[ c_1 \text{ consumption while young} \]

Indifference curves \( u(c_1, c_2) = \text{constant} \)

Utility maximizing choice

Budget line
slope \(- (1+r)\)

\[ s^* : \text{savings} \]
Life cycle savings and taxes theory

\[ w(1+r) \]

\[ c_2 \text{ consumption while old} \]

\[ w(1+r(1-\tau)) \]

\[ c_2^* \]

\[ c_1^* \text{ consumption while young} \]

\[ s^*: \text{savings} \]

Introducing tax on savings

\[ w(1+r(1-\tau)) \]
Life cycle savings and taxes theory

\[ w(1+r) \]

\( c_2 \) consumption while old

\( w(1+r(1-\tau)) \)

\( c_2^* \) consumption while young

Substitution effect: \( c_1 \) up, \( s \) down, \( c_2 \) down

Income effect: \( c_1 \) down, \( s \) up, \( c_2 \) down

Net effect: \( c_1 \) and \( s \) ambiguous, \( c_2 \) down
Fundamental tax reform: Shift to consumption taxation

Current US tax system is an income tax taxing both earnings and capital income

Some conservatives advocate shifting to consumption tax

Consumption tax is economically equivalent to taxing only labor earnings

But shift from labor tax to consumption tax generates double taxation of transitional generation (who have paid labor tax when working and need to pay consumption tax when old)

Shift to consumption tax also generates a one time wealth tax (as accumulated wealth can now buy less)

Actual consumption taxes (such as value-added taxes) are regressive on an annual basis as rich save a lot more than the poor (relative to income)
OPTIMAL CAPITAL INCOME TAXATION

Two broad types of models:

1) Life-cycle models: wealth is due solely to life-cycle savings

2) Models with bequests: wealth is due solely to inheritances
Optimal Tax in Life-Cycle model

Government can use both a progressive labor income tax $T(wl)$ and a linear capital income tax $\tau_K$.

Individuals live 2 periods, earn in period 1, retired in period 2

$$\max_{c_1,c_2,l} u(c_1) - h(l) + \delta u(c_2) \quad \text{s.t.} \quad c_1 + \frac{c_2}{1 + r(1 - \tau_K)} = wl - T(wl)$$

Individuals differ only according to their earning ability $w$

Government maximizes social welfare function based on individual utilities

**Atkinson-Stiglitz JpubE'76 theorem**: The optimal tax $\tau_K$ on capital income should be zero. Using a labor tax on earnings $T(wl)$ is sufficient.
Optimal Tax in Life-Cycle model

Atkinson-Stiglitz’ theorem shows that life-time savings should not be taxed, tax only labor income.

Key intuition: in basic life-cycle model, inequality in life-time resources is due solely to differences in earnings ability. This inequality can be addressed with labor income taxation. Capital income taxation needlessly distorts saving behavior.

From justice view: seems fair to not discriminate against savers if labor earnings is the only source of inequality.
LIMITS OF LIFE-CYCLE MODEL

In reality, capital income inequality also due

(1) difference in rates of returns across individuals

(2) inheritances

And distinction between labor income and capital income is hard to make in practice
SHIFTING OF LABOR / CAPITAL INCOME

In practice, difficult to distinguish between capital and labor income [e.g., small business profits, professional traders]

Differential tax treatment can induce shifting

(1) Carried interest in the US: hedge fund and private equity fund managers receive fraction of profits of assets they manage for clients. Those profits are really labor income but are taxed as realized capital gains

(2) Finnish Dual income tax system: taxes separately capital income at preferred rates since 1993: Pirttila and Selin SJE’11 show that it induced shifting from labor to capital income especially among self-employed

With income shifting, taxing capital income becomes desirable to curb this tax avoidance opportunity
Difference in Rates of Returns Across Individuals

Total rate of return on wealth varies significantly over time and across individuals

Example: stock market can gain 30% in some years or lose 20% in others

Specific stocks can increase much faster for successful start-ups (Google) or collapse entirely for bankrupt firms (Enron)

In general, richer individuals are able to invest in higher return assets due to ability to take risks and scale effects in financial advice [e.g., large University endowments get a larger return than smaller ones, Piketty 2014, Chapter 12]

⇒ Taxing capital income is a way to mitigate such inequality
Inheritance: Estate Taxation in the United States

Estate federal tax imposes a tax on estates above $11M exemption (less than .1% of deceased liable), tax rate is 40% above exemption (in 2018+)

Charitable and spousal giving are fully exempt from the tax

E.g.: if Bill Gates / Warren Buffet give all their wealth to charity, they won’t pay estate tax

Popular support for estate tax is pretty weak (“death tax”) but public does not know that estate tax affects only richest

Support for estate tax increase shots up from 17% to 53% when survey respondents are informed that only richest pay it (Kuziemko-Norton-Saez-Stantcheva AER’15 do an online Mturk survey experiment)
Besides the income tax, the government can also level the playing field with the federal estate tax.

The **Federal Estate Tax** (also known as the **Death Tax**) applies when a deceased person leaves **more than $5 million** in wealth to his or her heirs. Wealth left to a spouse or charitable organizations is exempt from estate tax.

**Only 1 person out of 1000 is wealthy enough to face the estate tax.**

Average Americans do not have anything close to $5 million in wealth, so the estate tax does not affect them and they can pass on their property to their children tax-free.

Eliminating the estate tax would allow the very richest families to pass down all of their wealth to their children tax-free. Hence, children of rich people would also start off very rich themselves.

Increasing the estate tax is a way to level the playing field between the children of wealthy parents and children of middle-class parents.
Taxation of Inheritances: Welfare Effects

Inheritances (or gifts from living parents) raise difficult issues of social justice [see Kaplow 2001]:

(1) Inequality in inheritances contributes to economic inequality and individuals not responsible for inheritances they receive:

⇒ seems fair to redistribute from those who received inheritances to those who did not

(2) However, it seems unfair to tax the parents who worked hard (and already paid tax on income) to pass on wealth to children

Liberals emphasize (1) [taxing heirs] while conservative emphasize (2) [death tax]
Taxation of Inheritances: Behavioral Responses

Potential behavioral response effects of inheritance tax:

(1) reduces wealth accumulation of altruistic parents (and hence tax base) [no very good empirical evidence, Kopczuk-Slemrod 2001 suggest small effects]

(2) reduces labor supply of altruistic parents (less motivated to work if cannot pass wealth to kids) [no good evidence]

(3) induces inheritors to work more through income effects because they receive smaller inheritances (Carnegie effect, decent evidence from Holtz-Eakin,Joulfaian,Rosen QJE’93)

Critical to understand why there are inheritances for optimal inheritance tax policy. 3 models of bequests: (a) accidental, (b) altruistic bequests, (c) social/family pressure
(a) ACCIDENTAL BEQUESTS

People die with a stock of wealth they intended to spend on themselves (or that they accumulated out of love for wealth, Carroll '98):

Bequest taxation has no distortionary effect on behavior of parent and can only increase labor supply of inheritors (through income effects) ⇒ strong case for taxing bequests heavily

Surveys show that bequest motives are not the main driver of wealth accumulation (Kopczuk-Lupton '07):

Only 1/3 of people surveyed say that the main reason they accumulate wealth is for bequests to their children
(b) ALTRUISTIC BEQUESTS (Piketty and Saez 2013)

Utility $u(c) - h(l) + \delta v(b^\text{left})$ where $c$ is own consumption, $l$ is labor supply, and $b^\text{left}$ is net-of-tax bequests left to next generation and $v(b^\text{left})$ is utility of leaving bequests for donor.

Individual receives $b^\text{received}$, works and earns $wl - T(wl)$, consumes $c$, saves $s = wl - T(wl) + b^\text{received} - c$, which translates into $b^\text{left} = s(1 + r)(1 - \tau_B)$ for heir ($\tau_B$ is bequest tax rate).

Bequests provide an additional source of life-income:

$$c + \frac{b^\text{left}}{(1 - \tau_B)(1 + r)} = wl - T(wl) + b^\text{received}$$

In this model, Atkinson-Stiglitz breaks down and using bequest taxation is desirable to supplement labor income taxation.

⇒ Two-dimensional inequality (labor, bequests) requires two-dimensional tax policy tool (labor tax, bequest tax)
(c) SOCIAL-FAMILY PRESSURE BEQUESTS

Parents may not want to leave bequests but feel compelled to by pressure of heirs or society: bargaining between parents and children

With estate tax, parents do not feel like they need to give as much ⇒ parents are made better-off by the estate tax ⇒ Case for estate taxation stronger

Empirical evidence:

Aura JpubE’05: reform of private pension annuities in the US in 1984 requiring both spouses signatures when worker decides to get a single annuity or couple annuity: reform increases sharply couple annuities choice

Equal division of estates [Wilhelm AER’96, Light-McGarry ’04]: estates are very often divided equally probably to avoid conflicts [gifts before death are not as equally split]
US WEALTH TAX DEBATE

Recent proposals for progressive wealth tax (Warren, Sanders, CA). Various justifications from center left to radical left:

(1) **Revenue**: US wealth is top heavy $\Rightarrow$ well enforced wealth tax can raise substantial revenue

(2) **Tax fairness**: super-rich do not need to “realize” income and hence pay fairly low taxes relative to their true incomes (Warren Buffett example, Saez-Zucman ’19)

(3) **Oligarchy risk**: wealth at the top is power. Evidence from Robber Barons US 19th century and devo countries that entrenched wealth stifles growth (Acemoglu-Robinson ’10)

**Concerns of opponents**: Wealth tax will be easy to avoid/evade. If not, wealth tax will discourage entrepreneurs.
US WEALTH TAX DEBATE

Politically: wealth tax is easy for public to understand as a tax on the rich (and polls well even among republicans)

Economically: wealth tax powerful because

(1) wealth tax goes after the stock while a capital income tax goes after the flow: example if rate of return is $r = 5\%$, a wealth tax at rate 5\% is like taxing capital income at 100\%

(2) wealth tax builds overtime: for billionaires, wealth tax mechanically reduces wealth by $(1 - \tau_W)$ after 1 year, $(1 - \tau_W)^2$ after 2 years, ..., $(1 - \tau_W)^t$ after $t$ years, etc.

⇒ Billionaires can still arise but don’t stay billionaires as long
Average tax rates by income group in 2018 (% of pre-tax income)
Adding old Warren wealth tax (2% above $50m, 3% above $1b) with 15% avoidance/evasion rate (Saez-Zucman)
## Long-Term Wealth Taxation and Top Wealth Holders

<table>
<thead>
<tr>
<th>Top Wealth Holder</th>
<th>Source</th>
<th>Current 2018 wealth ($ billions)</th>
<th>With Warren wealth tax (3% above $1b) since 1982</th>
<th>With Sanders wealth tax (5% above $1b up to 8% above $10b)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Jeff Bezos</td>
<td>Amazon (founder)</td>
<td>160.0</td>
<td>86.8</td>
<td>43.0</td>
</tr>
<tr>
<td>2. Bill Gates</td>
<td>Microsoft (founder)</td>
<td>97.0</td>
<td>36.4</td>
<td>9.9</td>
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<tr>
<td>3. Warren Buffett</td>
<td>Berkshire Hathaway</td>
<td>88.3</td>
<td>29.6</td>
<td>8.2</td>
</tr>
<tr>
<td>4. Mark Zuckerberg</td>
<td>Facebook (founder)</td>
<td>61.0</td>
<td>44.2</td>
<td>28.6</td>
</tr>
<tr>
<td>5. Larry Ellison</td>
<td>Oracle (founder)</td>
<td>58.4</td>
<td>23.5</td>
<td>8.5</td>
</tr>
<tr>
<td>6. Larry Page</td>
<td>Google (founder)</td>
<td>53.8</td>
<td>35.3</td>
<td>19.5</td>
</tr>
<tr>
<td>7. David Koch</td>
<td>Koch industries</td>
<td>53.5</td>
<td>18.9</td>
<td>8.0</td>
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<tr>
<td>8. Charles Koch</td>
<td>Koch industries</td>
<td>53.5</td>
<td>18.9</td>
<td>8.0</td>
</tr>
<tr>
<td>9. Sergey Brin</td>
<td>Google (founder)</td>
<td>52.4</td>
<td>34.4</td>
<td>19.0</td>
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<tr>
<td>10. M. Bloomberg</td>
<td>Bloomberg LP (f.)</td>
<td>51.8</td>
<td>24.2</td>
<td>11.3</td>
</tr>
<tr>
<td>11. Jim Walton</td>
<td>Walmart (heir)</td>
<td>45.2</td>
<td>15.1</td>
<td>5.0</td>
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<tr>
<td>...</td>
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<tr>
<td><strong>Total top 15</strong></td>
<td></td>
<td><strong>942.5</strong></td>
<td><strong>433.9</strong></td>
<td><strong>195.7</strong></td>
</tr>
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Forbes 400 wealth share (% of US wealth)

- Actual share of wealth owned by the Forbes 400
- With Warren wealth tax (3% rate above $1bn)
- With Sanders wealth tax (5% above $1bn graduated to 8% above $10bn)
COULD A WEALTH TAX BE ENFORCED?

Wealth taxes have been used in Europe but most repealed (and never raised much revenue, except Switzerland). Suffered from 2 issues:

1) Tax competition concerns through offshore tax evasion and mobility of the rich: could evade easily or move out to avoid

2) Exemption threshold too low (like $1m) creating hardship for illiquid millionaires (led to inefficient illiquid asset exemptions or tax limits based on reported income)

Both weaknesses could be remedied:

1) Fight offshore tax evasion (FATCA) and tax expatriates

2) Set high exemption threshold ($50m rather than $1m)
Adding old Warren wealth tax (2% above $50m, 3% above $1b) with 15% avoidance/evasion rate (Saez-Zucman)
Adding old Warren wealth tax (2% above $50m, 3% above $1b) with 89% avoidance/evasion rate (Summers-Sarin)
WEALTH IN TAX HAVENS

Official statistics substantially underestimate the net foreign asset positions of rich countries bc they do not capture most of the assets held by households in off-shore tax havens

⇒ Total world liabilities are larger than world total assets

Zucman QJE’13 compiles international financial stats and estimates that around 8% of the global financial wealth of households is held in tax havens (3/4 of which is unrecorded = 6%)

Alstadsaeter-Johannesen-Zucman ’19 link data from HSBC leak of accounts to Norwegian tax data

⇒ offshore evasion super concentrated among wealthy and pretty large at the very top even in Norway
Figure 2: Tax evasion at HSBC: intensive vs. extensive margin

Probability to own an unreported HSBC account, by wealth group
(HSBC leak)

Net wealth group
[millions of US$]

<table>
<thead>
<tr>
<th>Wealth Group</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>P90-P95</td>
<td>0.0%</td>
</tr>
<tr>
<td>[0.6 – 0.9]</td>
<td></td>
</tr>
<tr>
<td>P95-P99</td>
<td>0.2%</td>
</tr>
<tr>
<td>[0.9 – 2.0]</td>
<td></td>
</tr>
<tr>
<td>P99-P99.5</td>
<td>0.4%</td>
</tr>
<tr>
<td>[2.0 – 3.0]</td>
<td></td>
</tr>
<tr>
<td>P99.5-P99.9</td>
<td>0.6%</td>
</tr>
<tr>
<td>[3.0 – 9.1]</td>
<td></td>
</tr>
<tr>
<td>P99.9-P99.95</td>
<td>0.8%</td>
</tr>
<tr>
<td>[9.1 – 14.6]</td>
<td></td>
</tr>
<tr>
<td>P99.95-P99.99</td>
<td>1.0%</td>
</tr>
<tr>
<td>[14.6 – 44.5]</td>
<td></td>
</tr>
<tr>
<td>Top 0.01%</td>
<td>&gt; 44.5%</td>
</tr>
</tbody>
</table>

Notes: The top panel shows the fraction of households in Scandinavia (Norway, Sweden and Denmark) who had an unreported bank account at HSBC Switzerland in 2006, by bins of 2006 Scandinavian wealth. The sample includes 520 Scandinavian households who could be matched to a tax return; see text. The bottom panel shows the ratio of the wealth held at HSBC over total observable wealth, in the sub-sample of 300 matched HSBC account-holders for whom account values are available. Source: Appendix Tables E.2 and E.6.

Source: Alstadsaeter Johannesen Zucman 2019
Figure 4: The distribution of offshore wealth and offshore tax evasion

Offshore tax evasion, by wealth group

% of total taxes owed that are not paid

Position in the wealth distribution

Notes: The top panel shows the distribution of wealth in Scandinavia (Norway, Sweden, Denmark) excluding offshore wealth, and the distribution of wealth held at HSBC and disclosed by amnesty participants. The bottom panel distributes the macro stock of offshore across wealth groups and computes the implied amount of taxes evaded. See text for a description of the benchmark, higher, and lower-bound scenarios. 95% confidence intervals based on bootstrapped standard errors. Source: Appendix Tables A.2, J.1, J.3, J.3b and J.3c.
Offshore tax evasion of individuals

Rich individuals can evade taxes on wealth and capital income using offshore accounts in tax havens with bank secrecy

US passed FATCA in 2010: requires foreign banks to report accounts owned by US persons to IRS or face stiff penalties

⇒ Almost all banks complied (Panama papers leak risk)

⇒ Extended to all OECD+G20 countries in 2014: **Common Reporting Standard**

⇒ No good empirical evaluation yet but likely harder today to evade taxes through offshore accounts

2022 sanctions against Russian oligarchs shows need for transparency of offshore ownership
REFERENCES


Zucman, G. The Hidden Wealth of Nations, September 2015, University of Chicago Press. (web)