**Figure 8** The rise of private versus the decline of public wealth in rich countries, 1970-2020

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.
Private wealth / national income ratios 1870-2010

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
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

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.
Figure 11.7. The share of inherited wealth in total wealth, France 1850-2100

Inherited wealth represents 80-90% of total wealth in France in the 19th century; this share fell to 40%-50% during the 20th century, and might return to 80%-90% during the 21st century. Sources and series: see piketty.pse.ens.fr/capital21c

Source: Piketty (2014)
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.
The top 10% wealth holders own about 80% of total wealth in 1910, and 75% today.

Sources and series: see piketty.pse.ens.fr/capital21c.

Source: Piketty (2014)
Until the mid 20th century, wealth inequality was higher in Europe than in the United States.

Sources and series: see piketty.pse.ens.fr/capital21c.

Source: Piketty (2014)
Figure 10.10. After tax rate of return vs. growth rate at the world level, from Antiquity until 2100

The rate of return to capital (after tax and capital losses) fell below the growth rate during the 20th century, and may again surpass it in the 21st century. Sources and series: see piketty.pse.ens.fr/capital21c

Source: Piketty (2014)
Bottom 90% wealth share in the United States, 1917-2012
Composition of the bottom 90% wealth share

- Pensions
- Equities & fixed claims (net of non-mortgage debt)
- Business assets
- Housing (net of mortgages)
This figure depicts the share of total household wealth held by the 1% richest families, as estimated by capitalizing income tax returns. Source: Saez and Zucman (2014).
Real average wealth of bottom 90% and top 1% families

- Top 1% (left y-axis)
- Bottom 90% (right y-axis)

Real values are obtained by using the GDP deflator, 2010 dollars. Source: Appendix Tables B3.
The composition of capital income in the U.S., 1913-2013

Housing rents (net of mortgages)

Noncorporate business profits

Corporate profits

Profits & interest paid to pensions

Net interest

Source: Saez and Zucman ’14
The composition of household wealth in the U.S., 1913-2013

This figure depicts the evolution of the ratio of total household wealth to national income. This ratio has followed a U-shaped evolution and the composition of wealth has changed markedly since 1913. Source: Appendix Table A1.

Source: Saez and Zucman '14
This figure depicts the share of total household wealth held by the 0.1% richest families, as estimated by capitalizing income tax returns. In 2012, the top 0.1% includes about 160,000 families with net wealth above $20.6 million. Source: Appendix Table B1.
Saving rates by wealth class (decennial averages)

% of each group’s total primary income


Top 1%

Top 10 to 1%

Bottom 90%
Life cycle savings and taxes theory

\[ w(1+r) \]

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

\[ w(1+r) \]

\[ c_2^* \]

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

\[ w \]

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

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

Utility maximizing choice

Budget line slope \(-(1+r)\)
Life cycle savings and taxes theory

\[ w(1+r) \]

\[ c_1 \times c_2 \]

while young

\[ \times c_2^* \]

while old

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

Introducing tax on savings

\[ c_1^* \]

s*: savings

\[ c_1 \text{ consumption while young} \]
Life cycle savings and taxes theory

\[ w(1+r) \]

\[ c_1 \] consumption while young

\[ s^* \]: savings

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

Net effect: \( c_1 \) and \( s \) ambiguous, \( c_2 \) down

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

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

\[ c_2 \] consumption while old

\[ w \] consumption while young

\[ c_1^* \]

\[ s^* \] : savings
The figure depicts the share of total household wealth owned by bottom 90% and top 0.1% obtained by capitalizing income tax returns (Saez and Zucman 2016). The unit of analysis is the family.
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—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,
Figure 4: The distribution of offshore wealth and offshore tax evasion

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.
Figure 2: Tax evasion at HSBC: intensive vs. extensive margin

Probability to own an unreported HSBC account, by wealth group

Average wealth hidden at HSBC, by wealth group

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.
This figure depicts the share of total household wealth relative to national income. Source: Piketty, Saez, and Zucman (2018).
Average tax rates by income group in 2018
(% of pre-tax income)

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

Corporate & property taxes

Consumption taxes

Payroll taxes

Individual income taxes

Estate taxes

Warren wealth tax
## Long-Term Wealth Taxation and Top Wealth Holders

<table>
<thead>
<tr>
<th>Top Wealth Holder 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>
</tr>
<tr>
<td>2. Bill Gates</td>
<td>Microsoft (founder)</td>
<td>97.0</td>
<td>36.4</td>
</tr>
<tr>
<td>3. Warren Buffett</td>
<td>Berkshire Hathaway</td>
<td>88.3</td>
<td>29.6</td>
</tr>
<tr>
<td>4. Mark Zuckerberg</td>
<td>Facebook (founder)</td>
<td>61.0</td>
<td>44.2</td>
</tr>
<tr>
<td>5. Larry Ellison</td>
<td>Oracle (founder)</td>
<td>58.4</td>
<td>23.5</td>
</tr>
<tr>
<td>6. Larry Page</td>
<td>Google (founder)</td>
<td>53.8</td>
<td>35.3</td>
</tr>
<tr>
<td>7. David Koch</td>
<td>Koch industries</td>
<td>53.5</td>
<td>18.9</td>
</tr>
<tr>
<td>8. Charles Koch</td>
<td>Koch industries</td>
<td>53.5</td>
<td>18.9</td>
</tr>
<tr>
<td>9. Sergey Brin</td>
<td>Google (founder)</td>
<td>52.4</td>
<td>34.4</td>
</tr>
<tr>
<td>10. M. Bloomberg</td>
<td>Bloomberg LP (f.)</td>
<td>51.8</td>
<td>24.2</td>
</tr>
<tr>
<td>11. Jim Walton</td>
<td>Walmart (heir)</td>
<td>45.2</td>
<td>15.1</td>
</tr>
<tr>
<td><strong>Total top 15</strong></td>
<td>942.5</td>
<td>433.9</td>
<td>195.7</td>
</tr>
</tbody>
</table>
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)
Wealth Share of the top 400 wealthiest Americans
(top 0.00025%)

October 1st, 2021
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 of the top 400 wealthiest Americans (top 0.00025%) (% of US GDP)

October 1st, 2021
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

Wealth growth per unit
From Q1 2019 to Q4 2021

<table>
<thead>
<tr>
<th>Group</th>
<th>Growth (%)</th>
<th>Gain ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top 0.01%</td>
<td>39.6%</td>
<td>$150M</td>
</tr>
<tr>
<td>Top 0.1%</td>
<td>36.7%</td>
<td>$27M</td>
</tr>
<tr>
<td>Top 1%</td>
<td>33.3%</td>
<td>$4.7M</td>
</tr>
<tr>
<td>Top 10%</td>
<td>29.4%</td>
<td>$850k</td>
</tr>
<tr>
<td>Middle 40%</td>
<td>25.8%</td>
<td>$74k</td>
</tr>
<tr>
<td>Bottom 50%</td>
<td>288.3%</td>
<td>$5.9k</td>
</tr>
<tr>
<td>Total</td>
<td>29%</td>
<td>$120k</td>
</tr>
</tbody>
</table>