Top wealth shares in the UK since 1895

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Plan of the talk

1. Main Themes
2. Existing Evidence: Why estimating a new series?
3. Inequality of what among whom?
4. Piecing together the estate-based estimates 1911 to 2010
5. Complementary evidence: estates and investment income
6. Shape of the upper tail
7. Conclusions
Main Themes

I Long-run perspective
   - Lindert (1670 - 1870)
   - Atkinson-Harrison (1923-1972)
   - Piketty (1810-2010)

II Variety of evidence:
   - Household surveys (WAS)
   - Multiplied-up estate tax data
   - Multiplied up investment income data
   - Rich Lists (Sunday Times and Forbes)

III Consistency with macro data (national balance sheets)

IV Link to theoretical models
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NB:
little evidence about changes in distribution within the top 1%.
i Differences between sources;

ii What does the historical record really show?

iii What other evidence can be brought to bear?

iv Shape of the upper tail.
Sources of error

Administrative records:
   i. Choice of multipliers;
   ii. Joining different data;
   iii. Tax avoidance and evasion.

Household survey:
   - Unit non-response
   - Response errors

Rich Lists:
   - Incomplete coverage
   - Incomplete valuation
   - Problem of unit of analysis

Estimates of share of Top 1% by Peter Lindert

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Lower bound</th>
<th>Preferred estimates</th>
<th>Upper bound</th>
</tr>
</thead>
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<td>1850</td>
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</tr>
<tr>
<td>1870</td>
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</tbody>
</table>

Range of values:
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Definitions

Unit of analysis:
- individual (estates)
- tax unit (some income tax data)
- household (survey data)
- extended family (rich lists).

Valuation:
- realisation (market) value
- going concern value

Geographical coverage:
- domicile
- residence
- presence.
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Piecing together the estate-based estimates 1911 to 2010

Key steps in the development of the estate method:

- Availability from 1895 of national data on the distribution of total estate at death (estimates for previous years by Lindert had to make strong assumptions to combine separate data on personal wealth and on real property).

- Breakdown of estates by age (from 1911) and gender (from 1923) to allow differential multipliers to be applied.

- Development of multipliers that varied with wealth (social class multipliers).

- Adjust identified wealth to be consistent with national balance sheets for personal wealth, and allow adjustments for missing wealth and valuations of the estates.
<table>
<thead>
<tr>
<th></th>
<th>Period</th>
<th>Country</th>
<th>Control total</th>
<th>Adjustments to the identified wealth</th>
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</thead>
<tbody>
<tr>
<td>Bedrock series</td>
<td>1911 to 2009</td>
<td>EW to 1938 GB from 1938 to 1973 UK from 1974</td>
<td>Total personal wealth consistent with balance sheets</td>
<td>None</td>
</tr>
<tr>
<td>HMRC Series C</td>
<td>1966 to 2005</td>
<td>GB to 1973; UK from 1974</td>
<td>Total personal wealth consistent with balance sheets</td>
<td>Valuation of the estates and missing wealth of identified wealth-holders</td>
</tr>
</tbody>
</table>
Estate-based estimates since 1960: Comparison with HMRC and WAS
Fall in top share from 1911 to end of 1970s;

Fall not limited to war years;

Leveled off after 1979.
“Bedrock” series: Increasing concentration *within* the Top 1%

- Ratio between top half and bottom half starts at around 5.
- Falls nearly to 2 by mid-80s
- Up to around 3 in the 2000s.
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Complementary evidence

Advantage of estate data:
- Available for many more years and goes back to 1895.

Advantage of investment income data:
- Relates to wealth of the living;
- Captures higher return to wealthy.
i Decline in top shares began before First World War.

ii Little sign of rise in 21st century.
Fall in top shares from 1950s to end of 1970s.

Leveled off after 1979, and no sign of upturn in 21st century (income fore-stalling in 2009/10).
Comparison of estimates across methods

i Estates and wealth shares very similar.

ii Investment income top shares higher.
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Why study?

(i) Separate changes in concentration at top from rise in wealth of bottom 99 per cent;

(ii) Link to theories of equilibrium wealth distribution (Meade/Stiglitz/Vaughan) where Pareto coefficient $\approx g/(sr[1 - t])$

(iii) $\log(1 - F) = A - \alpha \log(W)$
Bedrock estate-based series:

i Pareto coefficient fairly flat up to 1930;

ii Then rises from 1.4 to around 2 at end of 1970s;

iii After 1980 falls to around 1.7
Pareto-Lorenz coefficients: HMRC 2005 data above 150,000 GBP

\[ \log (1 - F) = A - \alpha \log (W) \]

Good fit 2005

\[ y = -1.7518x + 8.2989 \]

\[ R^2 = 0.99907 \]

Log(1-F) vs Log(wealth)

\[ y = -1.7518x + 8.2989 \]

\[ R^2 = 0.99907 \]
Adding a Sunday Times Rich list point

i Treat ST Rich List as single observation.

ii Less good fit.

\[ y = -1.409x + 6.3783 \]
\[ R^2 = 0.99127 \]
i Pareto coefficient smaller.

ii Less good fit.
Less good fit in 1968.

\[ y = -1.3811x + 4.1161 \]

\[ R^2 = 0.99521 \]
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Conclusions: Wealth in the UK

(a) Estate-based wealth estimates show a long-run fall in top shares from around 1910 to end of 1970s; then leveled off; possible rise in 21st century.

(b) Trends over time corroborated by estate data and investment income data.

(c) Pareto coefficients show concentration of wealth stable until 1930, then rose steadily up to end of 1970s, when reversed and now back at 1950s level.

(d) Three strikes against the Pareto distribution.
Zvi Griliches (Handbook of Econometrics Vol 3 - 1986):

“the available economic statistics are our main window on economic behavior. In spite of the scratches and persistent fogging, we cannot stop peering through it and trying to understand what is happening.”