Mobility of Top Incomes in Germany

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Outline

- context

- data, income concept

- top income share reduction

- mobility in terms of ranks

- conclusion

Context

- Top Income Shares: repeated cross sections

- Income mobility: offsetting effect

- The more mobile a society in terms of income ranks, the more equal it is, given the annual income distribution

Questions

(1) Share reduction: How do to top income shares in average incomes over several years differ from annual top income shares?

– Norway: Aaberge et al (2013)

(2) Rank change: How mobile are tax units in terms of ranks/ fractile changes?

– US: Auten et al (NTJ 2009, AER 2013), Canada: Saez & Veall (AER 2005), France: Landais (2008)

Data & income concept

- Panel microdata on German income tax returns 2001 – 2006
    - detailed information on income sources
    - stratified, balanced 5% sample of all tax filers (singles or married couples) <u>who filed in all years</u>
        - weighted: 18 mio tax units
        - unweighted: 900.000 tax units
    - mandatory filing: self-employed, capital or business income over certain tresholds
    - not mandatory, but at high incomes increasingly preferable: wage earners, pensioners
    - 85% of all high income tax units (>150,000€) included

- Gross income before all deductions and allowances, after transfers
    - including employee's SSC
    - excluding / including taxable capital gains

(1) Income share reduction

- length of period:
  - annual income
  - 3-year average income
  - 6-year average income

- compare:
  - top income shares using average income
  - counterfactual share without reranking

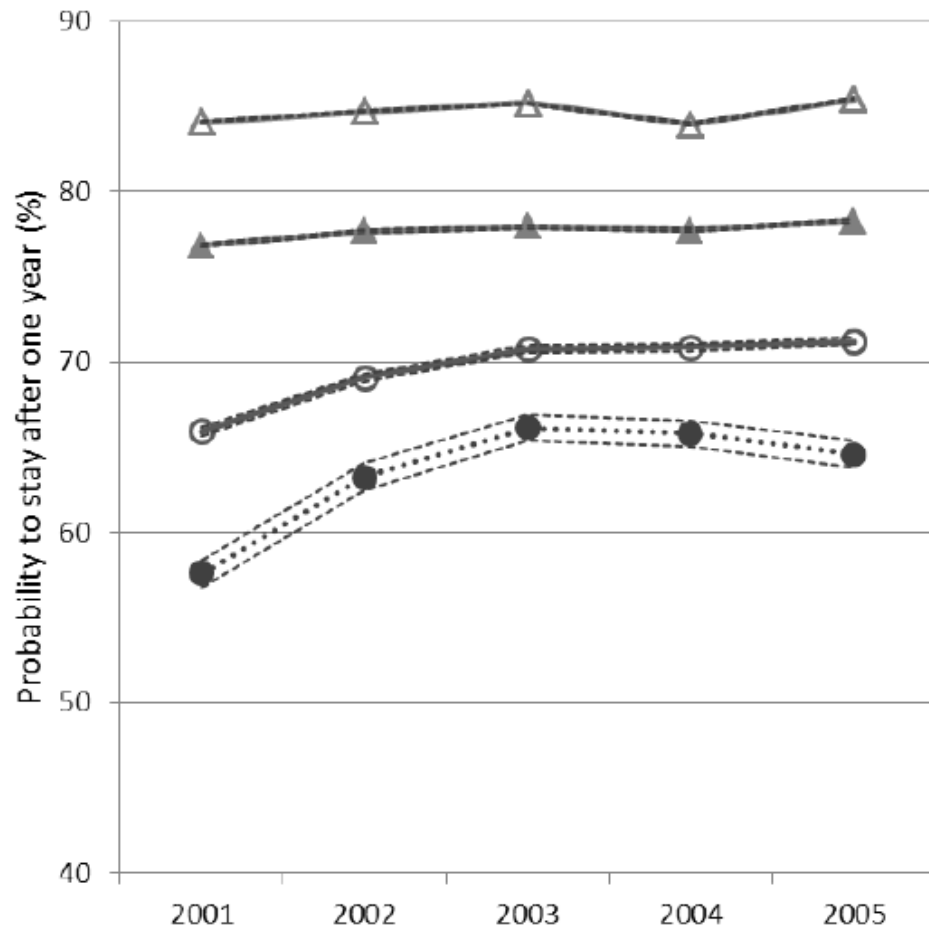# Income shares for different time periods
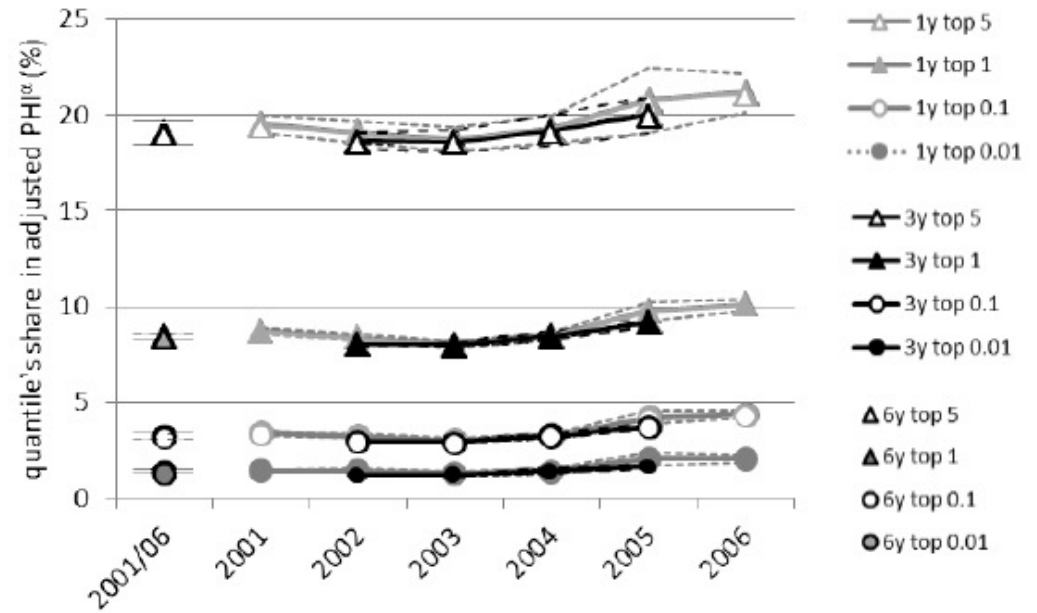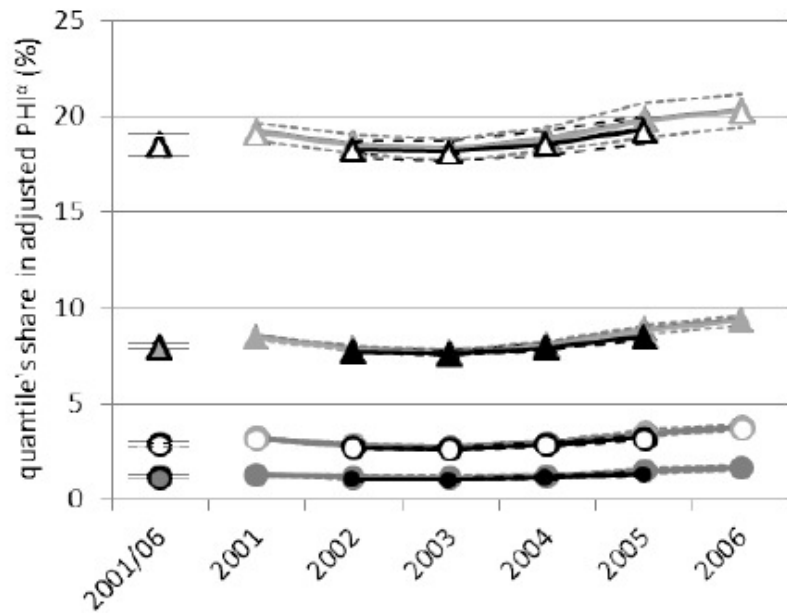
(2) Rank / quantile group changes

- persistence in quantile group after
  - one year
  - three years

- mobility indicator used for long run comparisons
  - Saez & Veall (2005), Landais (2008), Auten et al (2013)
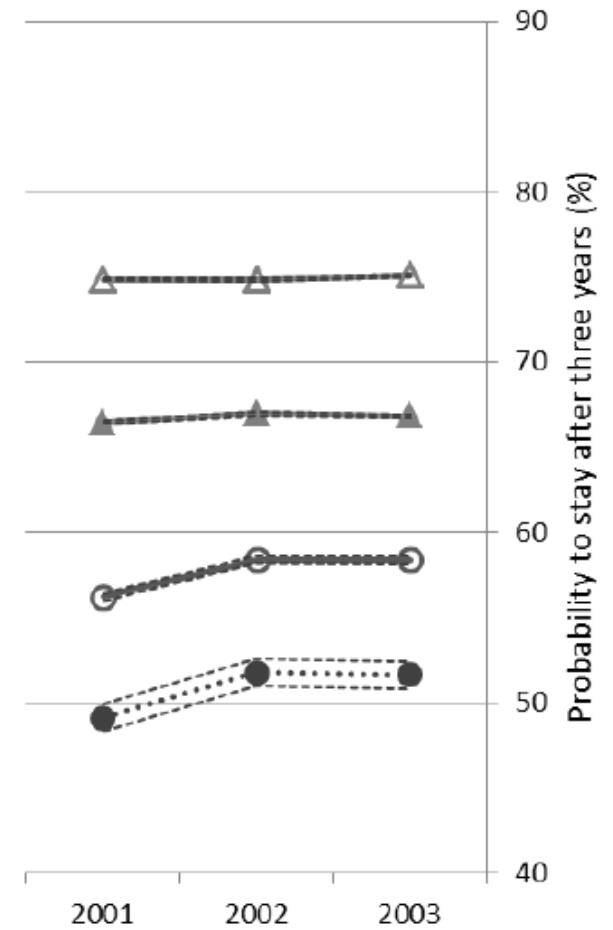
Probability to stay in fractile

after 1 year

after 3 years

Do low probabilities to stay reflect social mobility?

- top groups are more mobile in terms of fractile drop-outs than lower fractile groups

- But: these are tiny groups of people

  - high turnover of members is more likely in smaller groups

Complementary measures to capture rank changes

- probability to stay with equal group sizes
  - e.g. deciles of the top 0.1%
  - probabilities to stay are higher at the top

- re-entries in fractile groups
  - many drop-outs reenter the top quantile groups in the following years

- rank volatility (ir-std)
  - rank volatility decreases towards the top

Probabilities to stay: equal group sizes

deciles of quantile groups[a]	top income quantile groups					
	annual 2001 - 2006			3 year averages 2001/03 - 2004/06		
	top 1	top 0.1	top 0.01	top 1	top 0.1	top 0.01
1	34.0 (0.5)	27.5 (0.7)	22.5 (2.1)	42.0 (0.6)	35.2 (0.8)	29.2 (2.3)
2	35.1 (0.5)	28.9 (0.7)	21.5 (2.1)	43.5 (0.5)	36.6 (0.8)	30.4 (2.3)
3	33.4 (0.4)	27.2 (0.7)	22.6 (2.1)	42.2 (0.4)	36.1 (0.8)	30.4 (2.3)
4	34.5 (0.4)	27.8 (0.7)	20.0 (2.0)	43.7 (0.4)	37.1 (0.8)	32.1 (2.4)
5	33.9 (0.3)	27.5 (0.7)	26.1 (2.2)	44.5 (0.3)	35.6 (0.8)	34.0 (2.4)
6	34.7 (0.3)	28.8 (0.7)	25.6 (2.2)	44.6 (0.3)	37.6 (0.8)	32.5 (2.4)
7	34.6 (0.3)	28.4 (0.7)	30.0 (2.3)	46.0 (0.3)	38.5 (0.8)	32.8 (2.4)
8	36.1 (0.3)	29.1 (0.7)	27.4 (2.3)	47.6 (0.3)	40.5 (0.8)	42.7 (2.5)
9	39.4 (0.3)	32.1 (0.7)	32.2 (2.4)	52.4 (0.3)	46.1 (0.8)	45.3 (2.5)
10	49.7 (0.3)	43.3 (0.8)	42.6 (2.5)	65.1 (0.2)	59.5 (0.8)	60.2 (2.5)
	size of decile			size of decile		
N min[c]	8,675	3,677	390	6,975	3,829	390
N max[c]	38,323	3,907	391	38,831	3,907	391
sumwgt[d]	46,000	4,600	460	46,000	4,600	460

Reentries

quantile group[c]	unconditioned					N[a]	sumwgt[b]
	1	2	3	4	5		
top 10	87.3 (0.1)	82.5 (0.1)	79.0 (0.1)	75.9 (0.1)	73.7 (0.1)	421230	4599994
top 5	84.1 (0.1)	78.7 (0.1)	74.8 (0.1)	71.3 (0.1)	68.7 (0.1)	341502	2299976
top 1	76.8 (0.1)	70.9 (0.1)	66.4 (0.1)	62.6 (0.1)	59.0 (0.1)	231602	459973
top 0.1	65.9 (0.2)	60.3 (0.2)	56.2 (0.3)	52.7 (0.3)	49.7 (0.3)	38323	46000
top 0.01	57.6 (0.8)	53.2 (0.8)	49.1 (0.8)	46.2 (0.8)	43.3 (0.8)	3907	4599

quantile group[c]	conditioned					N[a]	sumwgt[b]
	1	2	3	4	5		
top 10	87.3 (0.1)	79.2 (0.1)	73.0 (0.1)	67.2 (0.1)	62.9 (0.1)	421230	4599994
top 5	84.1 (0.1)	74.6 (0.1)	67.7 (0.1)	61.6 (0.1)	56.9 (0.1)	341502	2299976
top 1	76.8 (0.1)	65.2 (0.1)	57.1 (0.1)	50.6 (0.1)	45.3 (0.1)	231602	459973
top 0.1	65.9 (0.2)	53.1 (0.3)	45.1 (0.3)	39.1 (0.2)	34.3 (0.2)	38323	46000
top 0.01	57.6 (0.8)	45.6 (0.8)	38.4 (0.8)	32.8 (0.8)	28.3 (0.7)	3907	4599

Distribution of rank changes
(individual standard deviation of annual ranks)

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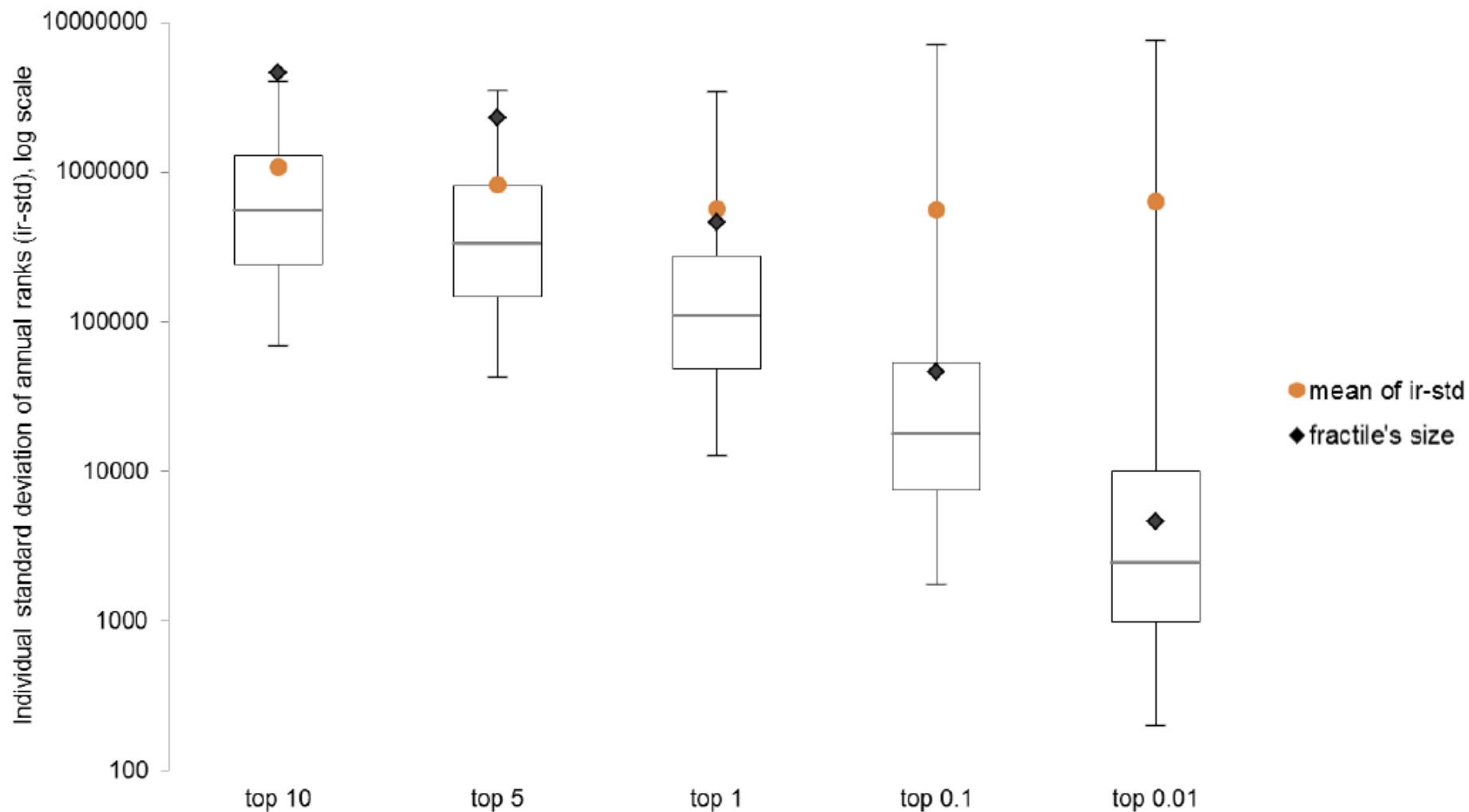
Summary

- income share reduction
  - moderate in size (about 5% for top 1)
  - stable over time
- rank mobility
  - persistence comparable to Canada and France
  - top is mobile in terms of quantile groups' turnover
  - top is not mobile in terms of absolute rank changes

Thank you

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