

Taxing the Rich and Wealthy

PIT, VAT and Wealth Taxes in a second-best world (*Optimal Taxation*)

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Universiteit Leiden
The Netherlands

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Finance and Economics,
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Beijing, China

Introduction

- Koen Caminada. professor Empirical analysis of social and tax policy, Leiden University
- Scientific Director Institute of Tax Law and Economics
- Scientific Director Research Program Reform of Social Regulation
- Topics
 - Distribution tax-benefits social security and pensions
 - Tax policy / progression tax system
 - Reforming social an tax regulations
 - Poverty EU and OECD / Lisbon Agenda / Europe 2020

Outline

1. Tax to GDP ratio China and the Netherlands
2. Descriptives of (taxes on) top incomes
3. Piketty's Global Wealth Tax (1% above one million)
4. Lessons from Optimal Taxation
 - a) Tax Mix and PIT (Mirrlees)
 - b) Revenue Maximizing Tax Rate (Laffer Curve)

Summing-up: comparison China - Netherlands

Tax revenue as % GDP, 2012: OECD and China



Tax to GDP ratio China and the Netherlands

	China 2013	Netherlands 2015	Difference
VAT	4.9%	6.6%	1.7%
Corporate income tax	3.8%	2.3%	-1.5%
Personal income tax	1.1%	12.9%	11.8%
Social contributions	2.1%	8.1%	6.0%
Other	9.0%	6.1%	-2.9%
Total	20.9%	36.0%	15.1%

Motivation

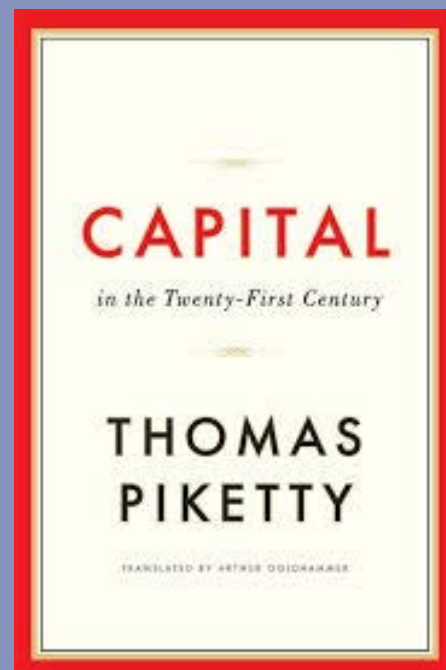
Concerns about trends in income inequality and wealth inequality:

- World Bank, OECD, European Commission and IMF
- Nobel Prize Laureates Shiller (2013), Deaton (2015)
- Saez, Morelli, Atkinson et al.

Piketty (2014): Distribution of income and wealth will become increasingly unequal.

Reason: return on capital $>$ economic growth

→ The wealthiest will 'earn' higher and higher share of national income ([video](#) 3:11)



Debate

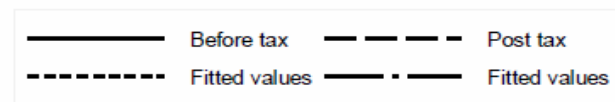
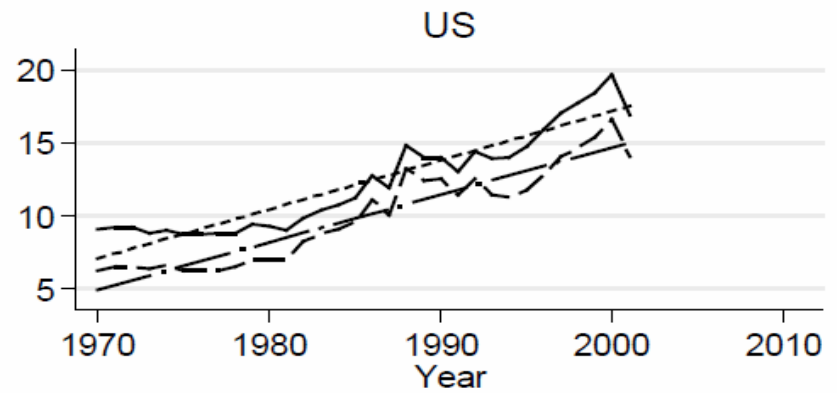
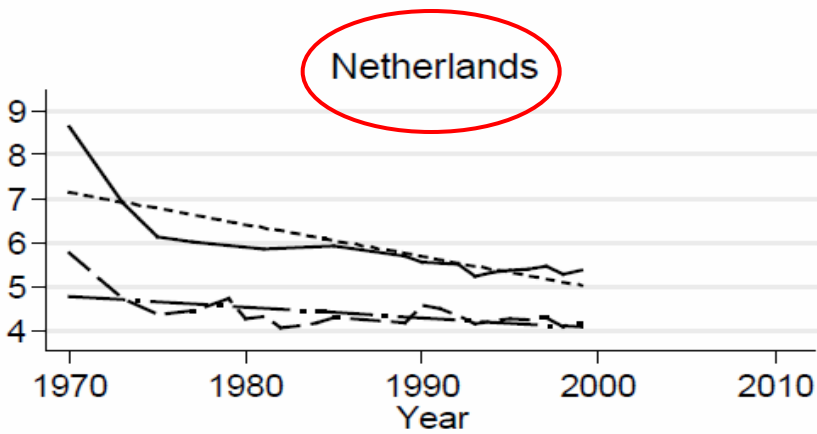
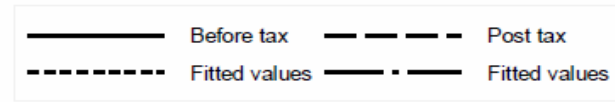
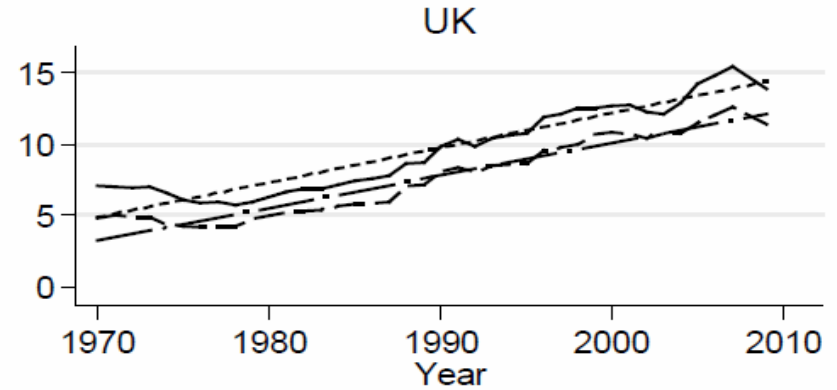
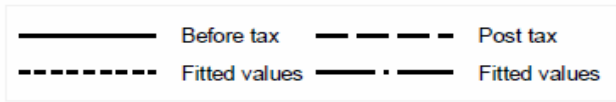
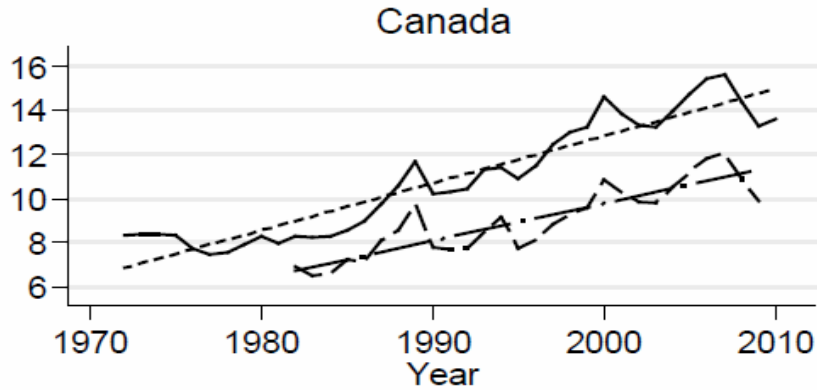
Societal debate = normative → use best available data
→ fact finding → research team Leiden University

Notes:

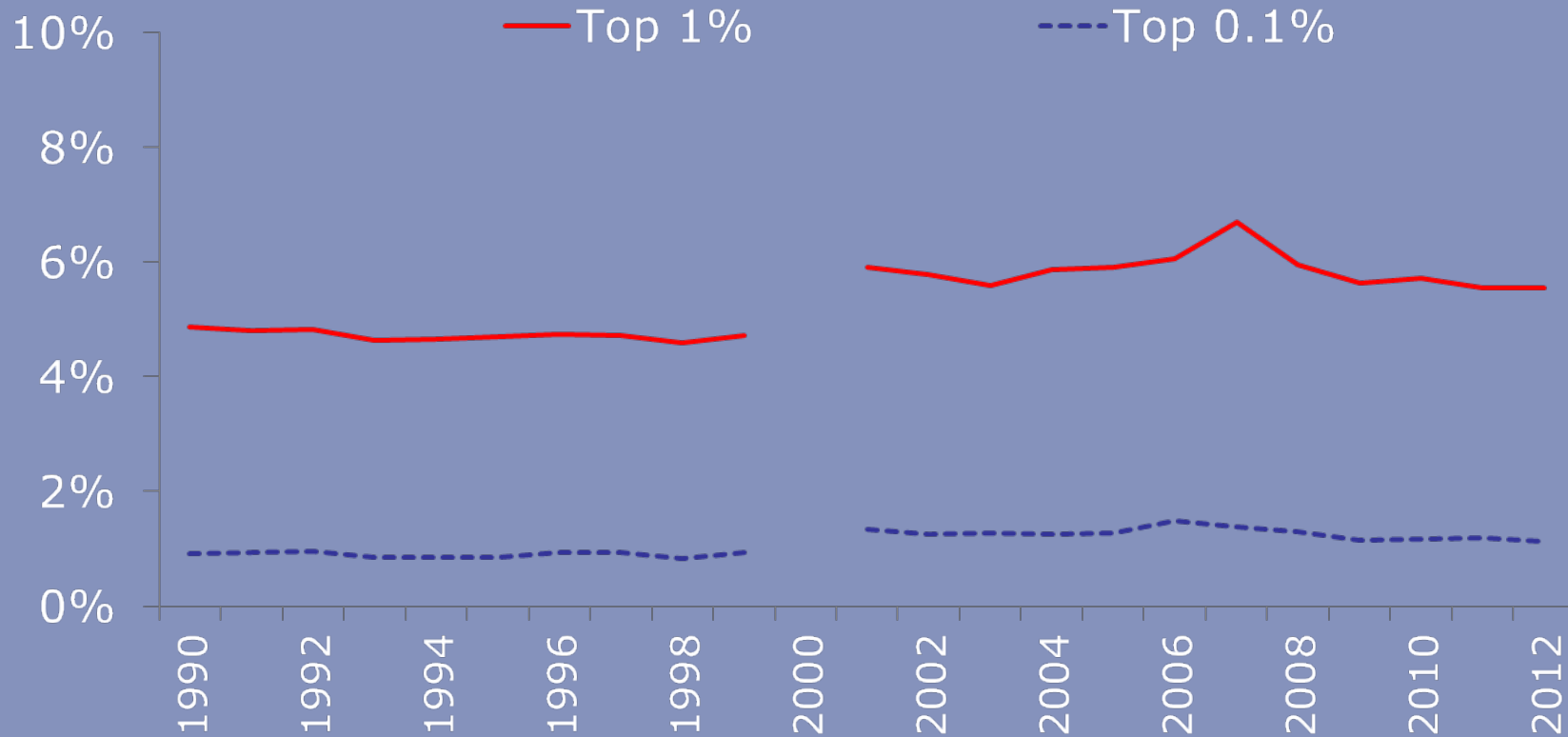
- Piketty (2014) did *not* include the Netherlands and China in his book.
- Great data collection – well-documented 😊 and he published in top journals 😊, but his explanation is based on interpretation 😞, expectations / forecasts 😞, policy recommendation 😞.

Share of top incomes increased in many countries, but not in the Netherlands

Pre and Post-Tax Top 1 Percent Shares for Selected Countries



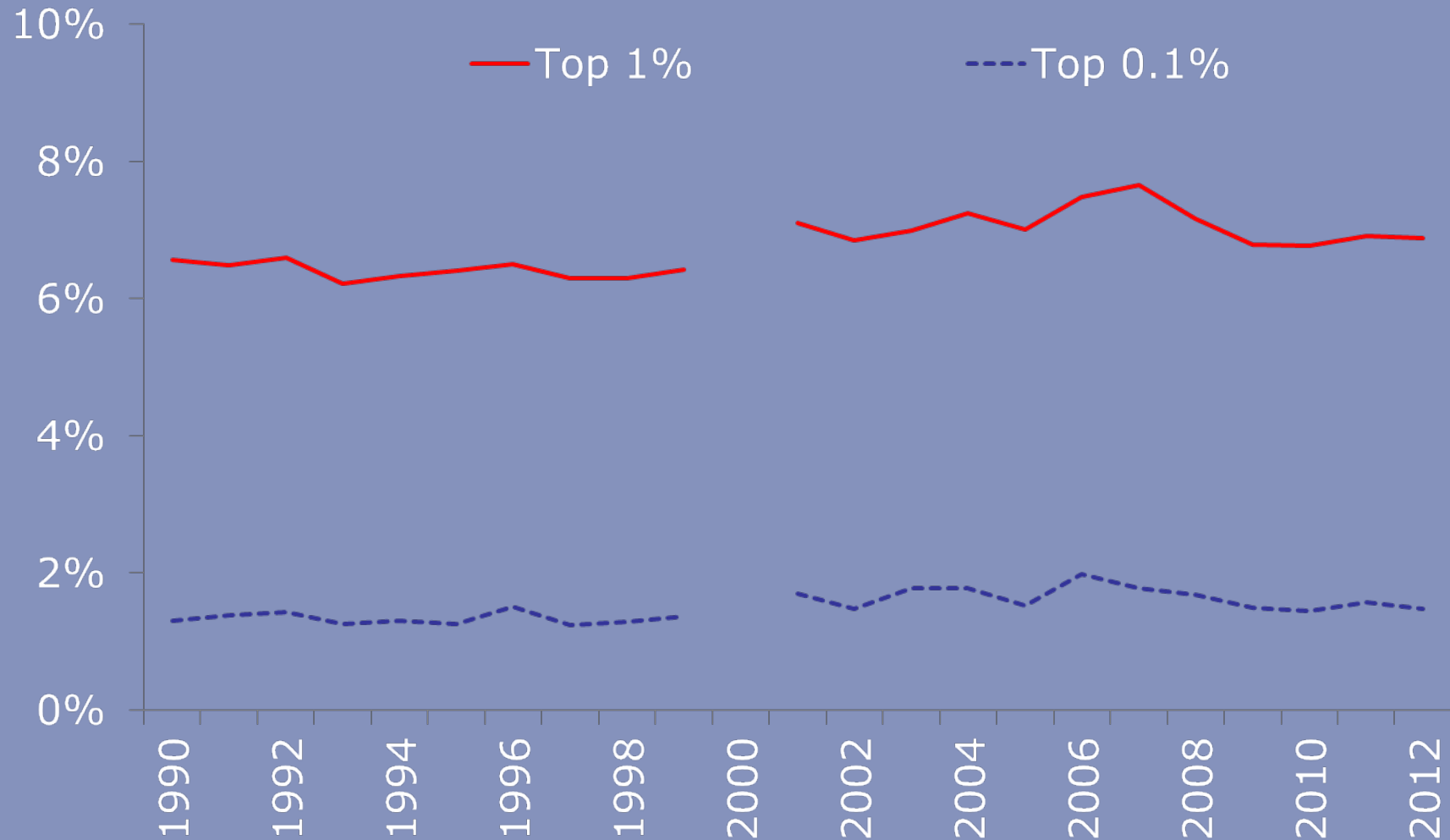
Dutch share top incomes 1990-2012



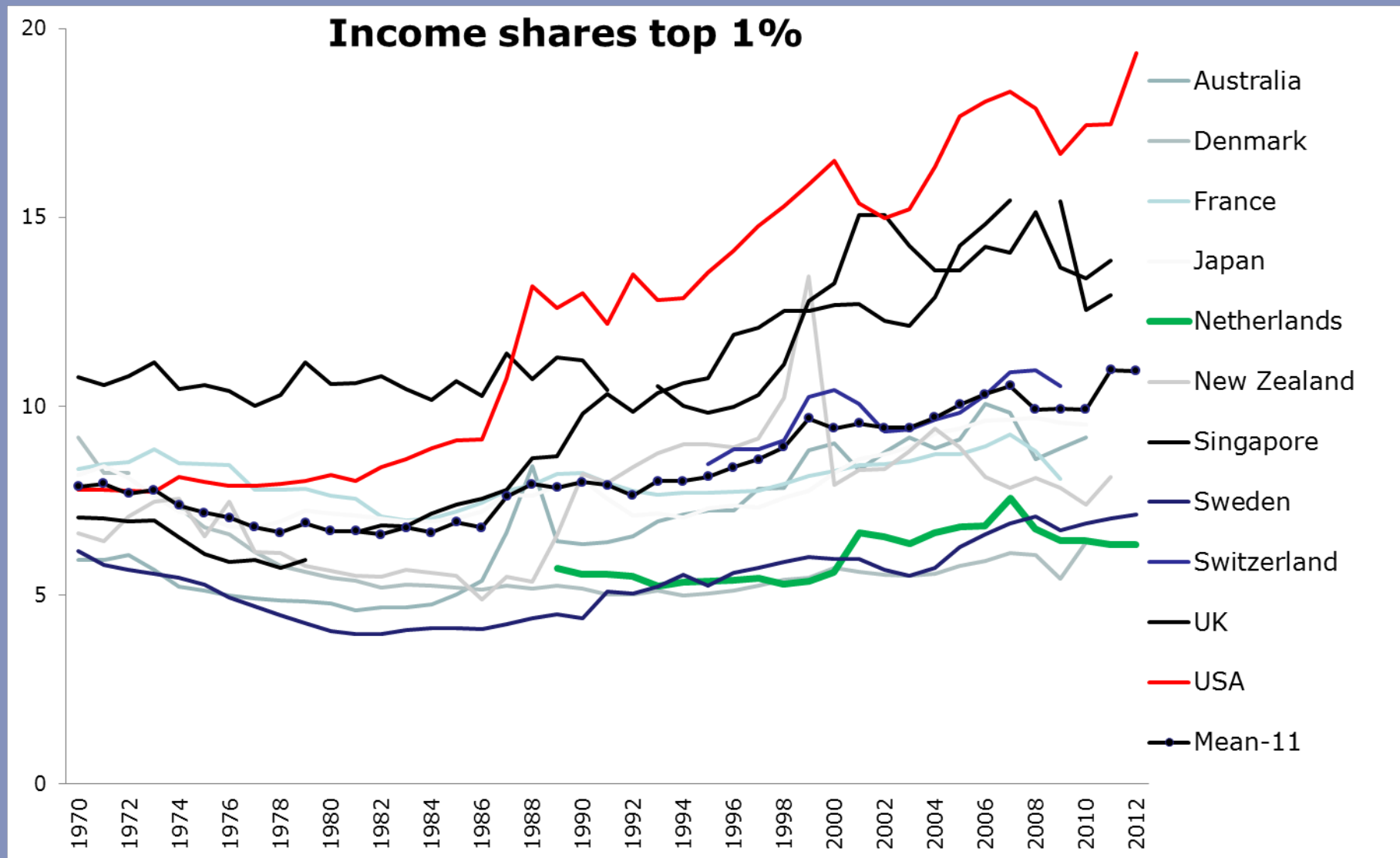
Top shares remarkable stable over time → no increasing income concentration

Source: Caminada, Goudswaard & Knoef (2015)

Dutch share of taxes of top incomes 1990-2012



How strong are Piketty's trends?



Source: Caminada (2014), [World Top Income Database](#) (Piketty and others)

Income shares top 1%

Country	Data availability	Levels			Change		
		1970	1990	2010's	1970-1990	1990-2010's	1970-2010's
Netherlands	1970-2012	8.6	5.6	6.3	-3.1	0.8	-2,3
Denmark	1970-2010	9.2	5.2	6.4	-4.0	1.2	-2,8
Sweden	1970-2012	6.2	4.4	7.1	-1.8	2.8	1,0
France	1970-2009	8.3	8.2	8.1	-0.1	-0.2	-0,3
New Zealand	1970-2011	6.6	8.2	8.1	1.6	-0.1	1,5
Singapore	1970-2012	10.8	8.4	8.2	-2.4	-0.2	-2,6
Australia	1970-2010	5.9	6.3	9.2	0.4	2.8	3,3
Japan	1970-2010	8.2	8.1	9.5	-0.1	1.5	1,3
Switzerland	1971-2009	10.8	8.6	10.5	-2.2	1.9	-0,3
UK	1970-2011	7.1	9.8	12.9	2.8	3.1	5,9
USA	1970-2012	7.8	13.0	19.3	5.2	6.4	11,5
Mean 11 countries		8.1	7.8	9.6	-0.3	1.8	1.5

Trend coefficients 1970-2012 from a simple OLS regression

Rank	Country	Data	# Obs.	Intercept	Coefficient	Adj R ²
1	USA	1970-2012	43	-586.3** (0.000)	0.301** (0.000)	0.937
2	UK	1970-2011	40	-457.3** (0.000)	0.235** (0.000)	0.878
3	Australia	1970-2010	41	-245.6** (0.000)	0.127** (0.000)	0.765
4	Singapore	1970-2012	41	-191.7** (0.000)	0.102** (0.000)	0.553
5	New Zealand	1970-2011	42	-143.6** (0.000)	0.076** (0.000)	0.296
6	Japan	1970-2010	41	-98.9** (0.000)	0.054** (0.0000)	0.461
7	Sweden	1970-2012	43	-94.1** (0.000)	0.050** (0.000)	0.406
8	Switzerland	1971-2009	27	-59.8* (0.029)	0.035* (0.013)	0.192
9	France	1970-2009	40	-17.9 (0.226)	0.013 (0.082)	0.053
10	Netherlands	1970-2012	30	6.9 (0.7839)	0.000 (0.977)	-0.036
11	Denmark	1970-2010	40	80.5** (0.0013)	-0.038** (0.003)	0.194
	Mean 11	1970-2012	43	-175.2** (0.000)	0.092** (0.000)	0.753

How strong are Piketty's trends?

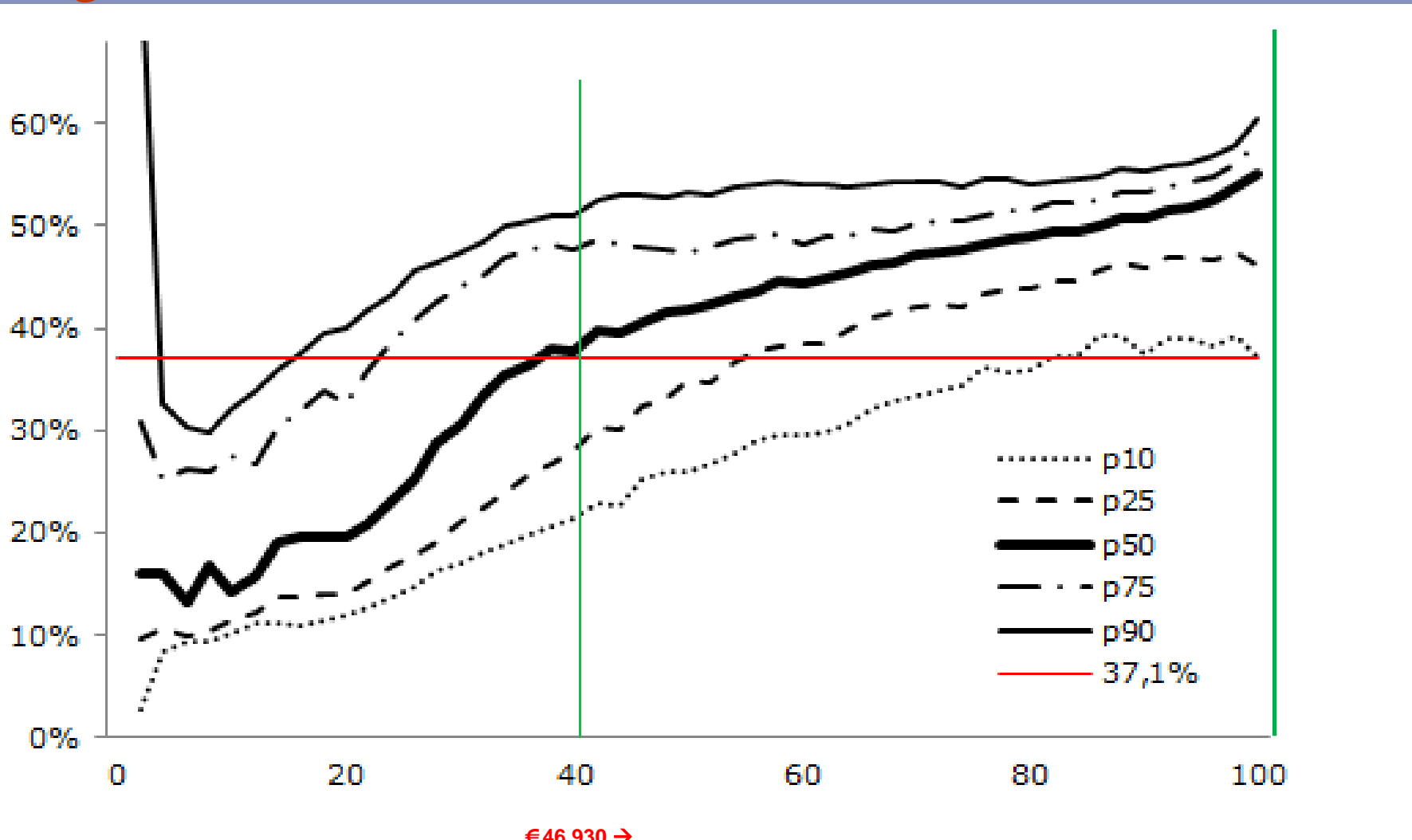
- USA and UK: top income shares rose sharply → over 0.23 percent each year in the period 1970-2012
- AUS, Singapore and NZ: significant positive trend more concentration at the top (< 0.13)
- Jap, Swe and Suisse: modest rise top income share (0.05)
- France and the Netherlands: neglectable
- Denmark: significant decline top income share!

Mean 11 countries: significant positive trend at rate 0.09 percent per year → At this rate it will take over **980** years before total income will be earned by the top 1% earners!

Gimmick: it might be wrong to think about a worldwide increase in income concentration among the top 1%

Taxing the rich at higher rate?

Big Data: Dutch median effective tax rate 2012



$$TR = \frac{\text{gross} - \text{disposable income}}{\text{gross income}}$$

€46.930 →

P10=21%

P50=38%

P90= 51%

€274.026 →

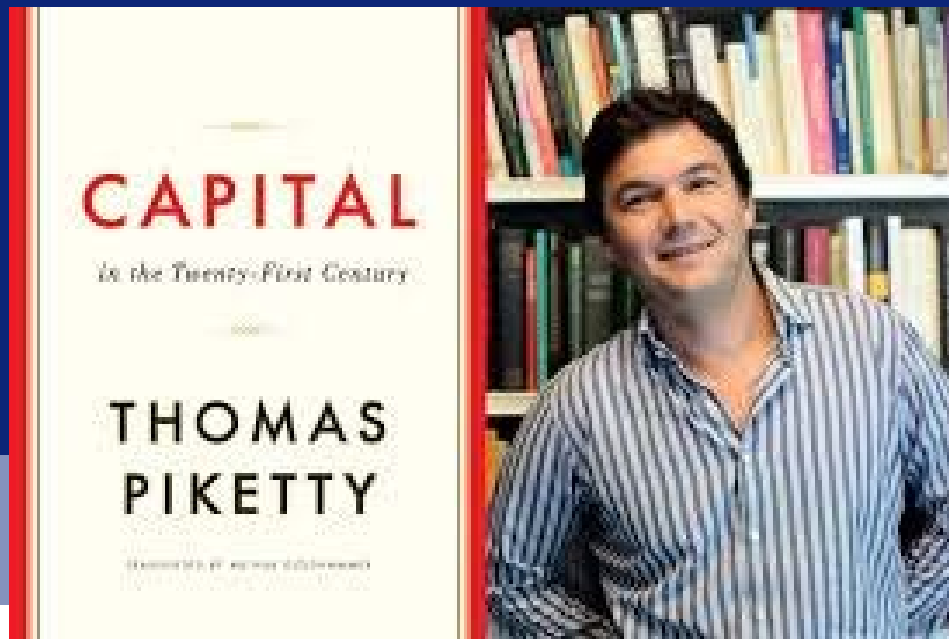
P10=37%

P50=55%

P90= 61%

Taxing the Wealthy

A Global Wealth Tax above one million



Institute of Tax Law & Economics

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The Netherlands

Distribution of wealth in the Netherlands

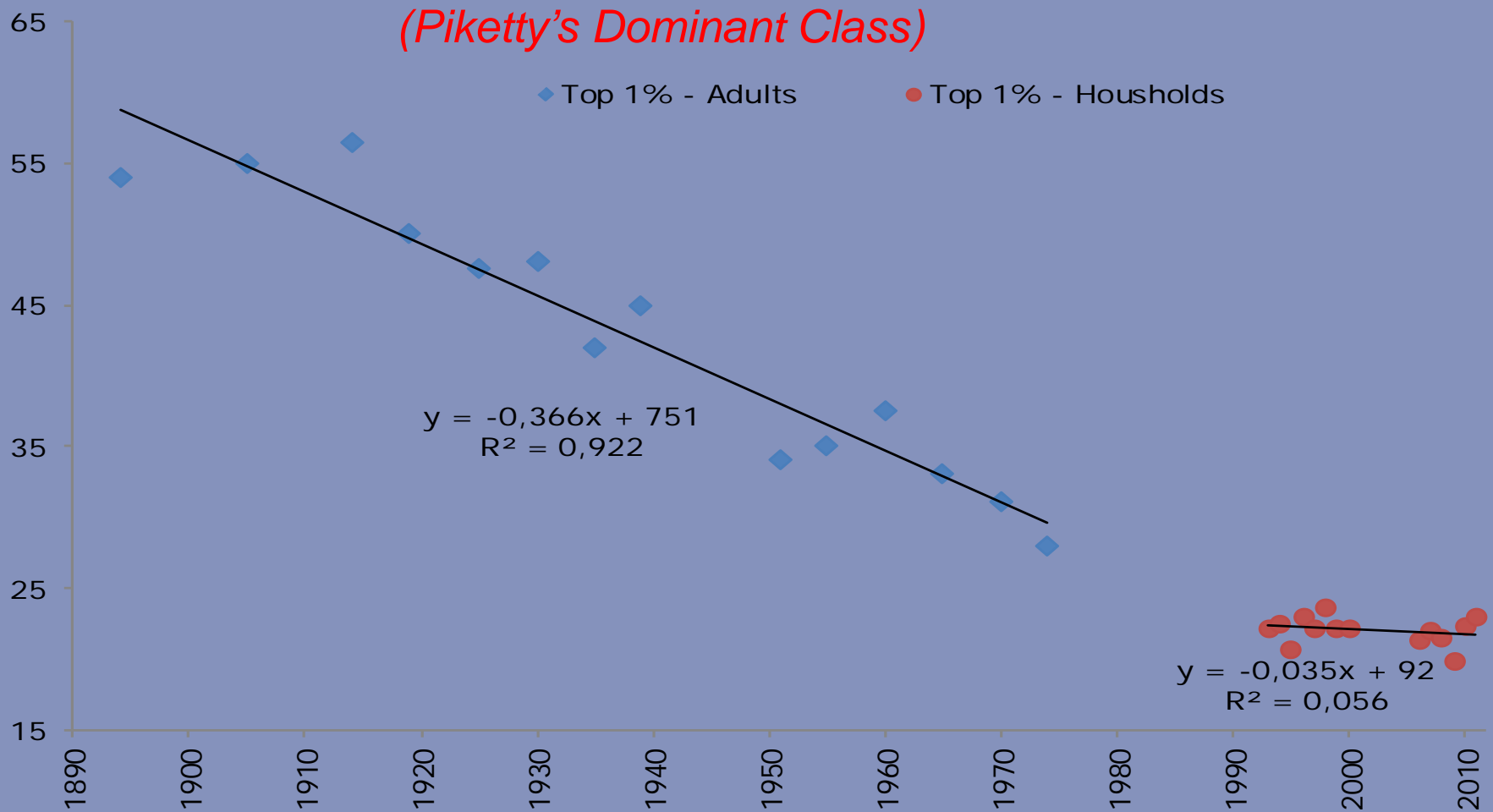
Private wealth (Dutch Statistics)

- Private wealth = balance of assets and debts
- Assets: bank deposits, stocks, real estate and business assets
- Debts: mortgages and consumer credit

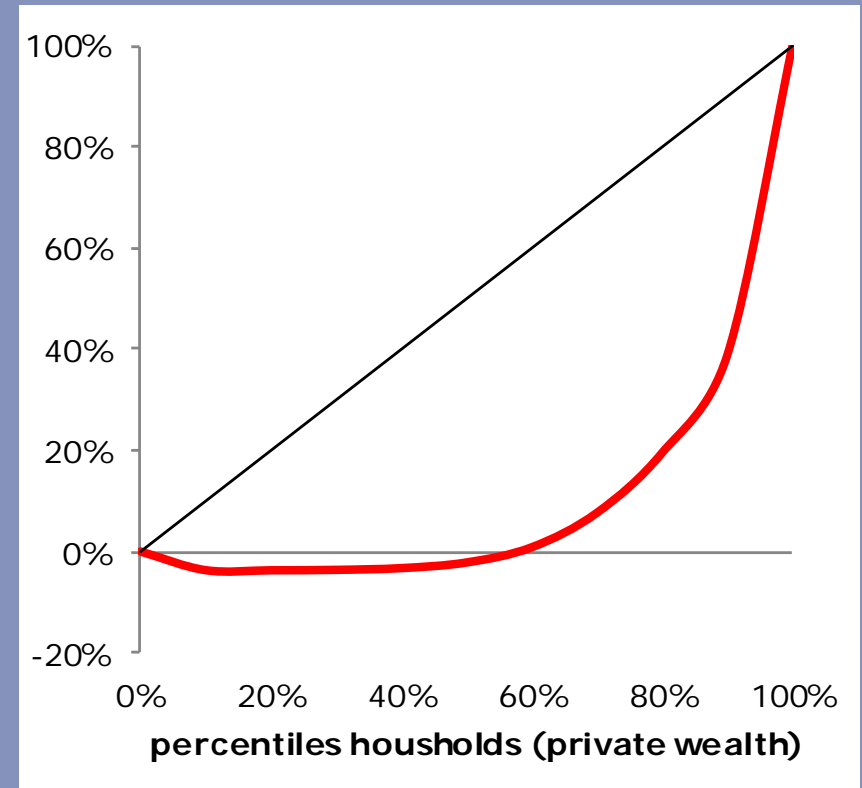
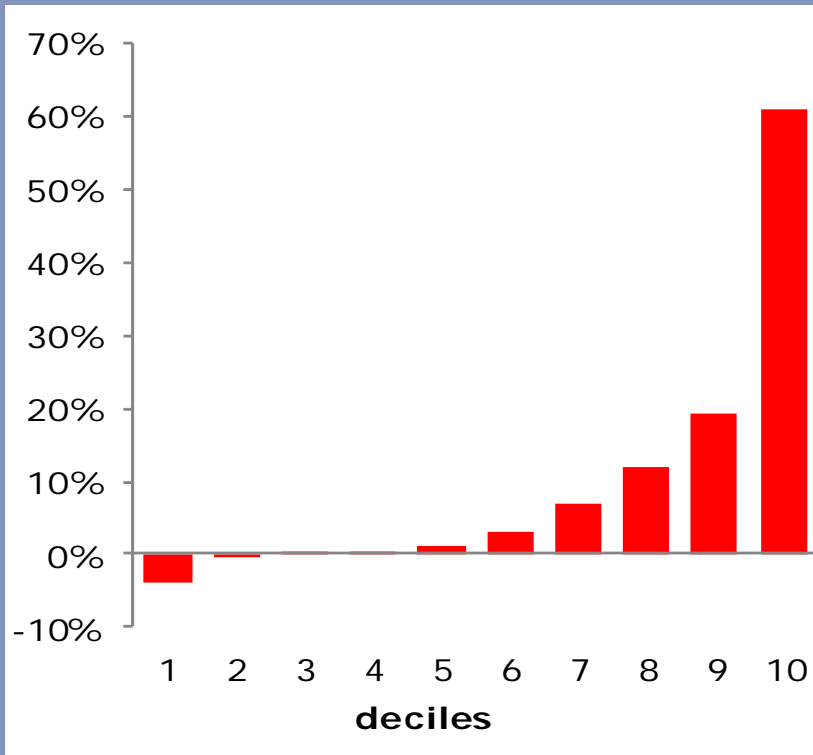
Not (yet) included: built-up pension rights

Growing wealth concentration in the Netherlands?

Private wealth distribution; share top percentile, 1894-2011



Shares of private wealth per decile and Lorenz curve of private wealth, 2012



Source: Caminada, Goudswaard & Knoef (2015)

How unequal is private wealth distributed?

- Top 1% households: 23% of total private wealth
- Top 10% → 61%; mainly pensioners (36%) and self-employed (29%)
- Bottom 60% of all households holds a cumulated private wealth of € 0.
- Lowest decile private wealth: especially employees and civil servants (76%). Negative net wealth of housing.

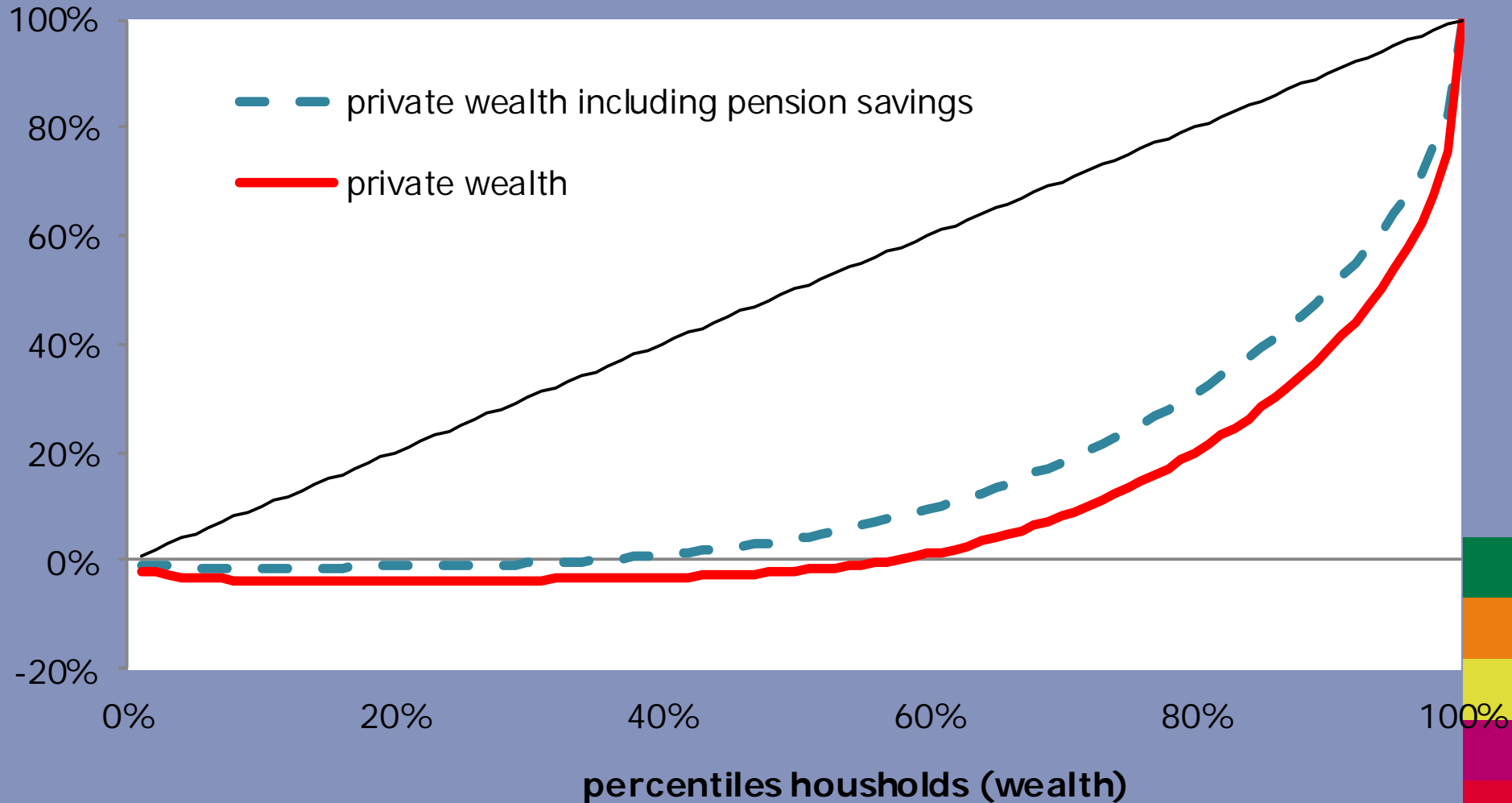
Conclusion: private wealth unequally distributed → Gini of private wealth = 0.80.

Effect of built-up pension rights

- Important for an international comparison
- Are pension savings comparable with private wealth → transfer, sell / salable and heritable?
- However: in both cases (delayed) consumption

Our approach: presentation of the distribution of wealth *with* and *without* pension savings

Dutch Lorenz curves of wealth distribution, *with and without* built-up pension rights



Results

Private wealth including pension savings is less unequally distributed (Lorenz Dominance)

Wealth distribution in the Netherlands (with and without pension savings)

	Full distribution	Top		Bottom
	Gini coëfficiënt	Share top 1%	Share top 10%	Positive cumulative wealth from
Private wealth	0.80	25%	61%	60 percentile
Idem + pension savings	0.68	17%	50%	35 percentile

Source: calculations based on CBS IPO and CBS micro data on pensioenaanspraken, -uitkeringen en vermogen

Built-up pension rights mitigate inequality. Dutch total wealth inequality is smaller compared to inequality of private wealth.

Piketty and Netherlands

TABLE 7.2 Inequality of capital ownership across time and space

Share of different groups in total capital	Low inequality (never observed: ideal society?)	Medium inequality (= Scandinavia, 1970s-1980s)	Medium-high inequality (= Europe 2010)	High inequality (= US 2010)	Very high inequality (= Europe 1910)	Netherlands 2010 Caminada et al (2014)	Idem, including pension savings
Top 10% "upper class"	30%	50%	60%	70%	90%	61%	50%
Including top 1% ("dominant class")	10%	20%	25%	35%	50%	25%	17%
Including next 9% ("well-t-do-class")	20%	30%	35%	35%	40%	37%	33%
The middle 40% ("middle class")	45%	40%	35%	25%	5%	41%	46%
The bottom 50% ("lower class")	25%	10%	5%	5%	5%	-2%	4%
Corresponding Gini (synthetic inequality index)	0.33	0.58	0.67	0.73	0.85	0.742	0.626

Source: Piketty (2014, p. 248) and calculations based on CBS IPO and CBS microdata

Piketty and The Netherlands

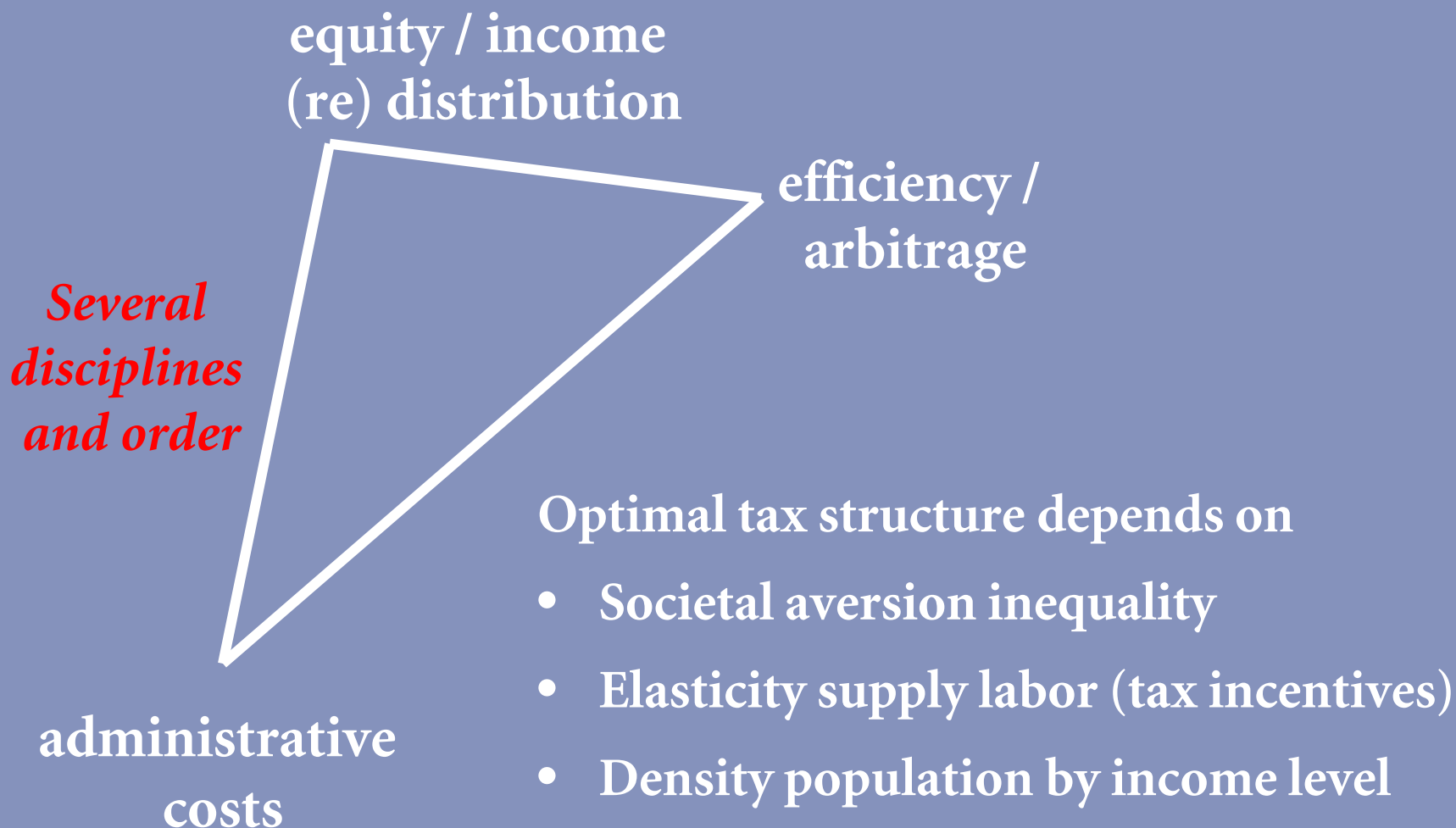
- Data Dutch distribution of private wealth in line with data Piketty for Continental Europe.
- However, pension savings blur the picture.
Including pension saving → The Netherlands is a look-alike of Nordic Countries.
- Dutch Wealth Tax: 1.2% above 25,000 euro

Lessons from Optimal Taxation in a second-best world



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Mirrlees' Optimal Taxation: Trade-offs Tax Reform



Ideal World: Optimal Commodity Taxation

$$w(T - l) = P_X X + P_Y Y$$

$$wT = P_X X + P_Y Y + wl$$

Taxes

$$wT = (1 + t)P_X X + (1 + t)P_Y Y + (1 + t)wl$$

$$\frac{1}{1 + t} wT = P_X X + P_Y Y + wl$$

Corlett-Hague Rule: in case of two commodities, efficient taxation requires taxing commodities complementary to leisure at relatively high rate.

Reinterpretation of the Ramsey Rule

$$t_X \eta_X = t_Y \eta_Y$$

$$\frac{t_X}{t_Y} = \frac{\eta_Y}{\eta_X} \quad \text{inverse elasticity rule}$$

Policy implication → Rearrange tax mix towards bases with low elasticity's

Policy Implications

Apply differential taxation. Rearrange tax mix towards bases with low elasticity's

- capital → labor
- female → male
- youth → elderly (higher taxes on pensions)
- addicts should be taxed heavily
- tax non-luxury goods (food and housing)

Implications for tax mix policy

Optimal Tax Mix in a second-best world

Distortion of taxes

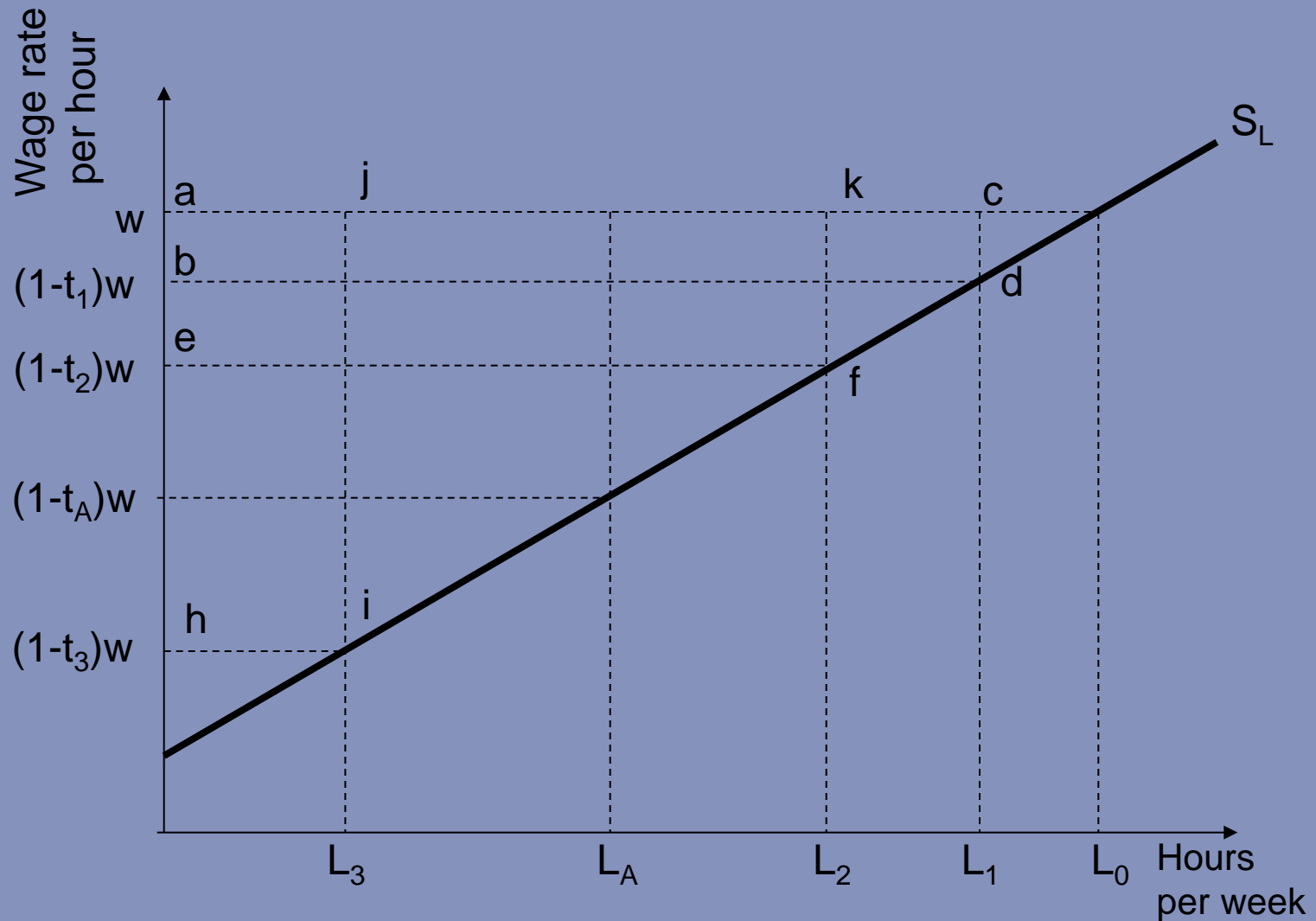
← low			→ high
Immovable property Death taxes	Indirect taxes (VAT)	Personal Income Taxes	Corporate Income Taxes

Mirrlees Review, OECD, literature

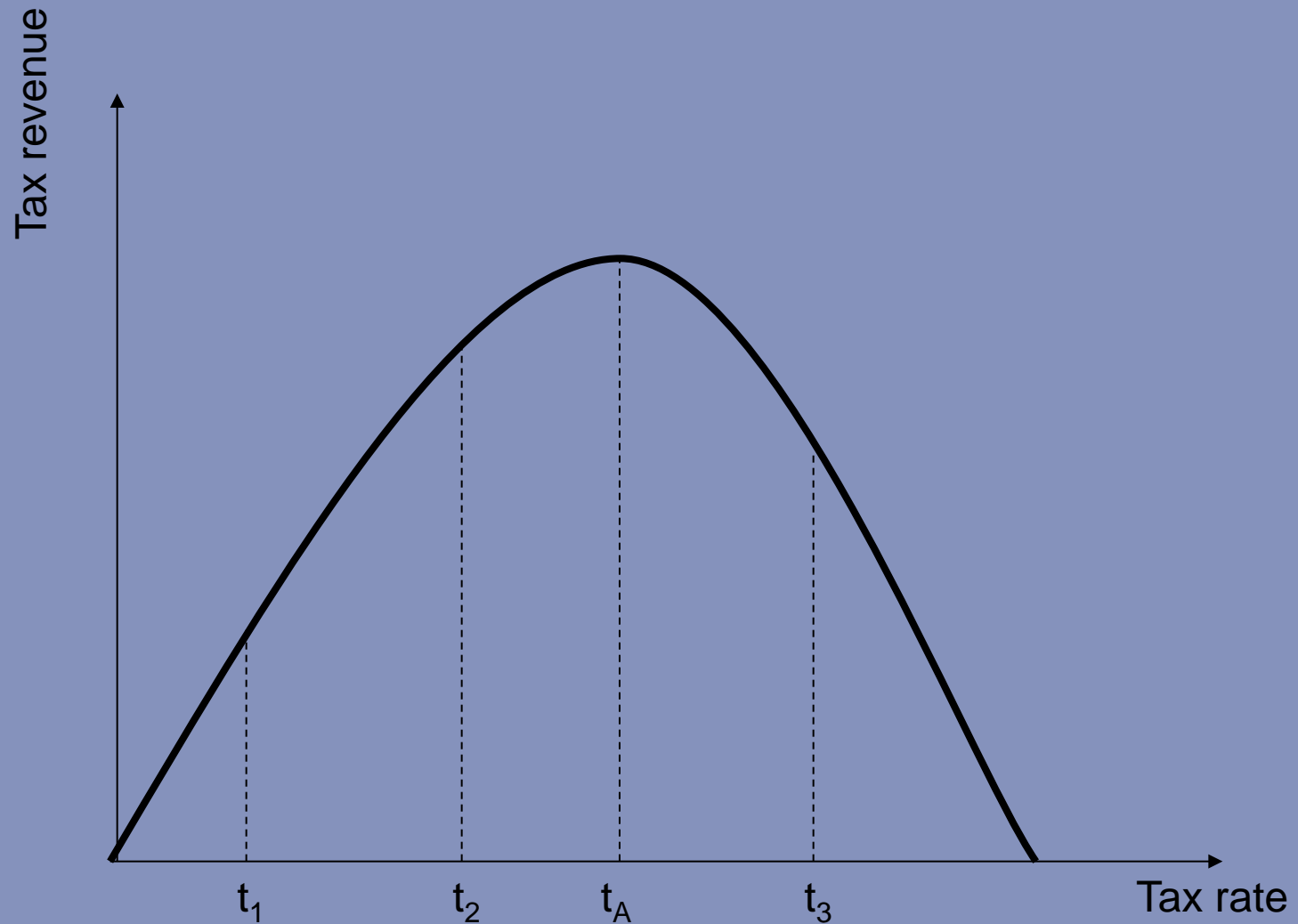
Welfare enhancing tax policy

Higher top rate PIT?

Laffer Curve - Labor Supply and Tax Revenues



Tax Rates versus tax revenue – Laffer Curve



Empirics on a Free Lunch

	USA	Europe	China
Potential additional tax revenue (%)			
• Labour Taxes	40%-52%	5%-12%	?
• Capital taxes	5%-6%	0%-1%	?
Maximizing tax rate			
• Labour Taxes	70%-84%	52%-61%	?
• Capital taxes	59%	42%	?

Summing-up: Taxing top incomes and wealth

	China	NL
Tax to GDP	21%	36%
Top rate PIT	45%	52%
Number of brackets / rates PIT	7	3
Median effective tax rate top 1%	?	55%
Top Laffer Curve PIT	?	49%
VAT (rate luxury goods)	17%	21%
Property tax housing (other)	1.2% (12%)	2.0% (6%)
Wealth tax	?	1.2%
Inheritance tax	no	yes

Summing-up: Taxing top incomes and wealth

	China	NL
Level income inequality (Gini)	0.51	0.26
Trend income inequality (Gini)	rising	stable
Trend top 1% incomes	rising?	stable
Trend private wealth concentration	?	down
Level Gini private wealth	?	0.80
Idem, including pension saving	?	0.68
Piketty proof	No?	Yes

Political Economy of Tax Reform (OECD)

In the real world (i.e. not the one inhabited by tax theorists), **proposals for tax reform are constrained by politics** – not least the unfortunate observation that those who lose from tax reforms tend to be vengeful while those who gain from them tend to be ingrateful. This can lead in tax policy, perhaps more than in other areas of public policy, to a **'tyranny of the status quo'**.

P. Johnson en G. Myles (2011), The Mirrlees Review, *Fiscal Studies*, vol. 32, no. 3, p. 323

Some related work – downloads via

www.economie.leidenuniv.nl

1. Leiden Law Blog
 - Do rising shares in top incomes affect income inequality as a whole?
 - How strong are Piketty's trends?
 - Facts & Figures: Income inequality and fiscal redistribution in 29 countries
2. Wang, Caminada, Goudswaard & Wang (2015), Decomposing income polarization and tax-benefit changes across 31 European countries and Europe wide, 2004-2012, *Department of Economics Research Memorandum* 2015.03, Leiden University.
3. Knoef, Been, Alessie, Caminada, Goudswaard & Kalwij (2014), Measuring retirement savings adequacy: developing a multi-pillar approach in the Netherlands, *Journal of Pension Economics and Finance*.
4. Wang, Caminada & Goudswaard (2013), Income redistribution in 20 countries over time, *International Journal of Social Welfare* 23 (3).
5. Wang, Caminada & Goudswaard (2012), The redistributive effect of social transfer programs and taxes: a decomposition across countries, *International Social Security Review* 65(3).
6. Wang & Caminada (2011), Leiden LIS Budget Incidence Fiscal Redistribution Dataset, posted at the website of LIS cross-national data center Luxembourg.
7. Caminada & Goudswaard (2001), Does a Flat Rate Personal Income Tax Reduce Tax Progressivity? A Simulation for the Netherlands, *Public Finance & Management* 1(4).
8. Caminada & Goudswaard (1996), Progression and Revenue Effects of Income Tax Reform, *International Tax and Public Finance* 3(1).