# The Optimal Taxation of Capital Income

Insights from Economic Theory

Kevin Spiritus
Erasmus University Rotterdam,
KU Leuven

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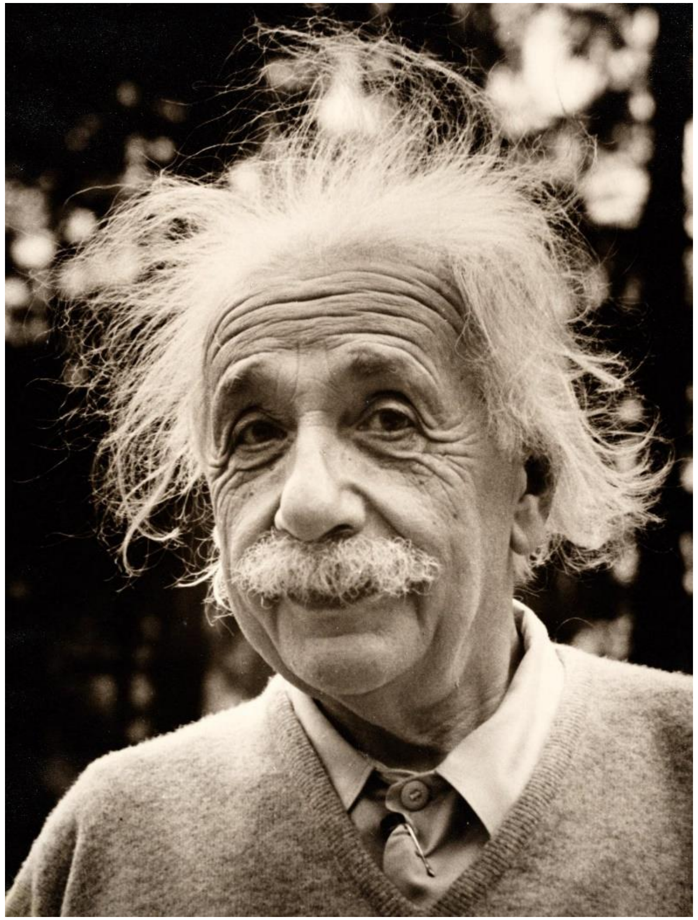
# How We Study Optimal Taxation



"This is too difficult for a mathematician. It takes a philosopher."

Albert Einstein, quoted in Time Magazine on February 1, 1963.
Confirmed in a letter by Einstein's friend and tax advisor Leo Mattersdorf on February 22, 1963.

# Principles of Optimal Taxation

Small government? (“night-watch” state)

Big government? (social democracy)

→Political choice

## Take government revenue as given

# Principles of Optimal Taxation

Observed preferences for redistribution:

- Rich countries tax progressively
- Right-wing flat tax: correction at the bottom

# Vertical Equity

- Tax liability should depend on ability to contribute
- How important? → Political choice

# Efficiency Costs of Taxation: Labor Income Tax

<u>Example</u>: market wage without tax 9 €

Tax labor income 30%

- Employer pays wage 10 € → hires less people
- Employee receives wage 7 € → less willing to work

→ Unrealized mutually beneficial economic transactions

# Efficiency Costs of Taxation: Capital Income Tax

<u>Example:</u> market interest rate without tax 1,8%

Tax capital income: example 30%

- Borrowers pay 2,0% (plus risk premium) → invest less
- Savers receive 1,4% → save less

→ Unrealized mutually beneficial economic transactions

Social value of lost transactions: “excess burden”

# Optimal Tax on Labor Income

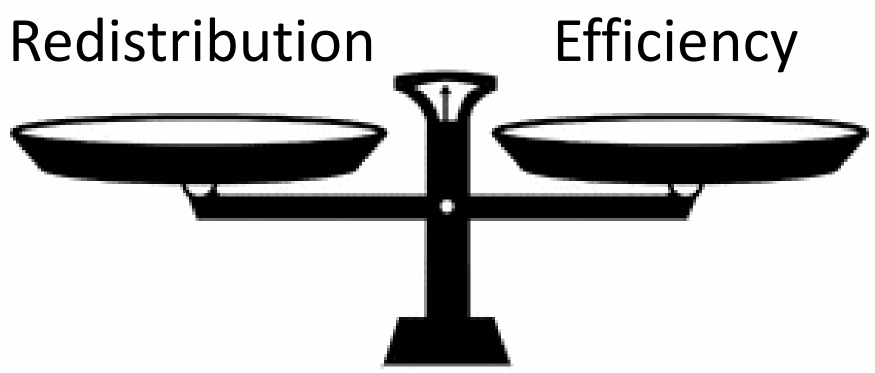
Higher tax on labor income if:

- Care more about redistribution
- More unequal market incomes

Lower tax on labor income if:

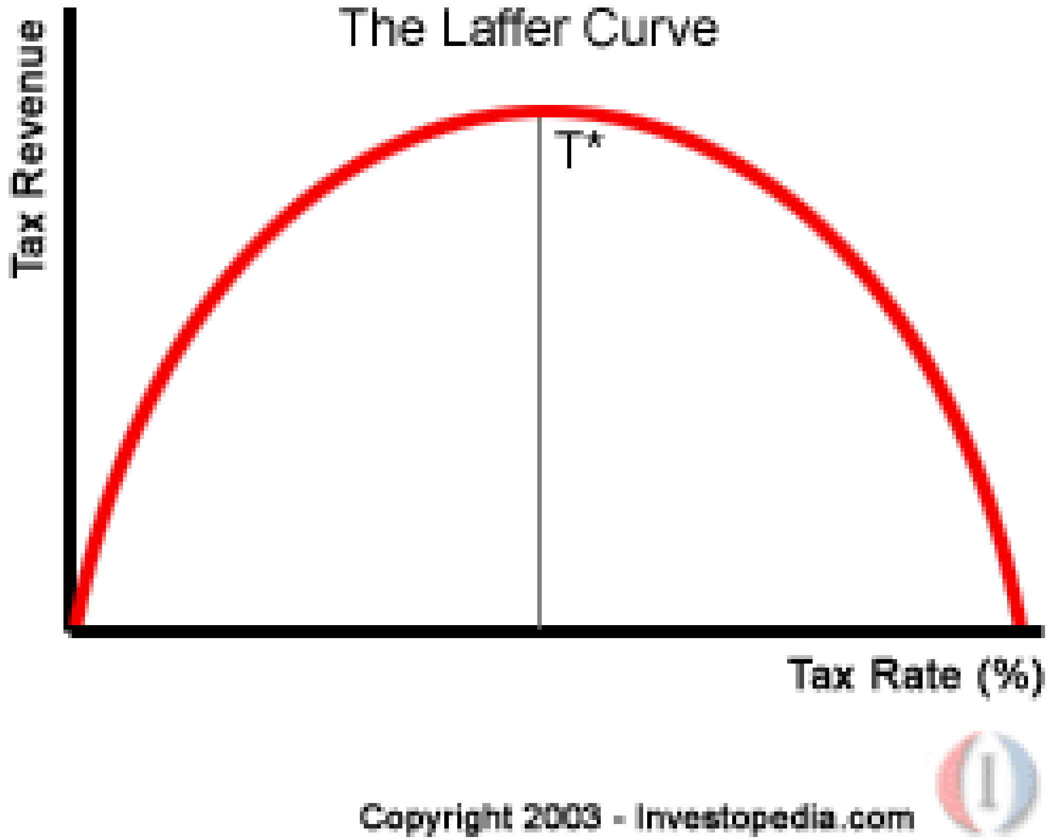
- Stronger responses to taxation

Same goes for capital income, *if* you want to tax it




Balance redistribution against efficiency

# Maximize Revenue From the Rich




When tax rate too high:

- Rich work less → Less revenue
- Less distribution to the poor
- Everybody is worse off

Maximum top tax rate Belgium:
60%-75%
could be higher with avoidance-proof tax code

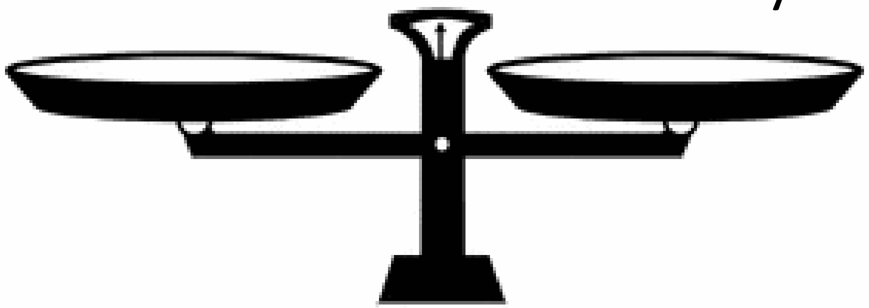
# Should We Tax Capital Income?

## Study tax system as a whole

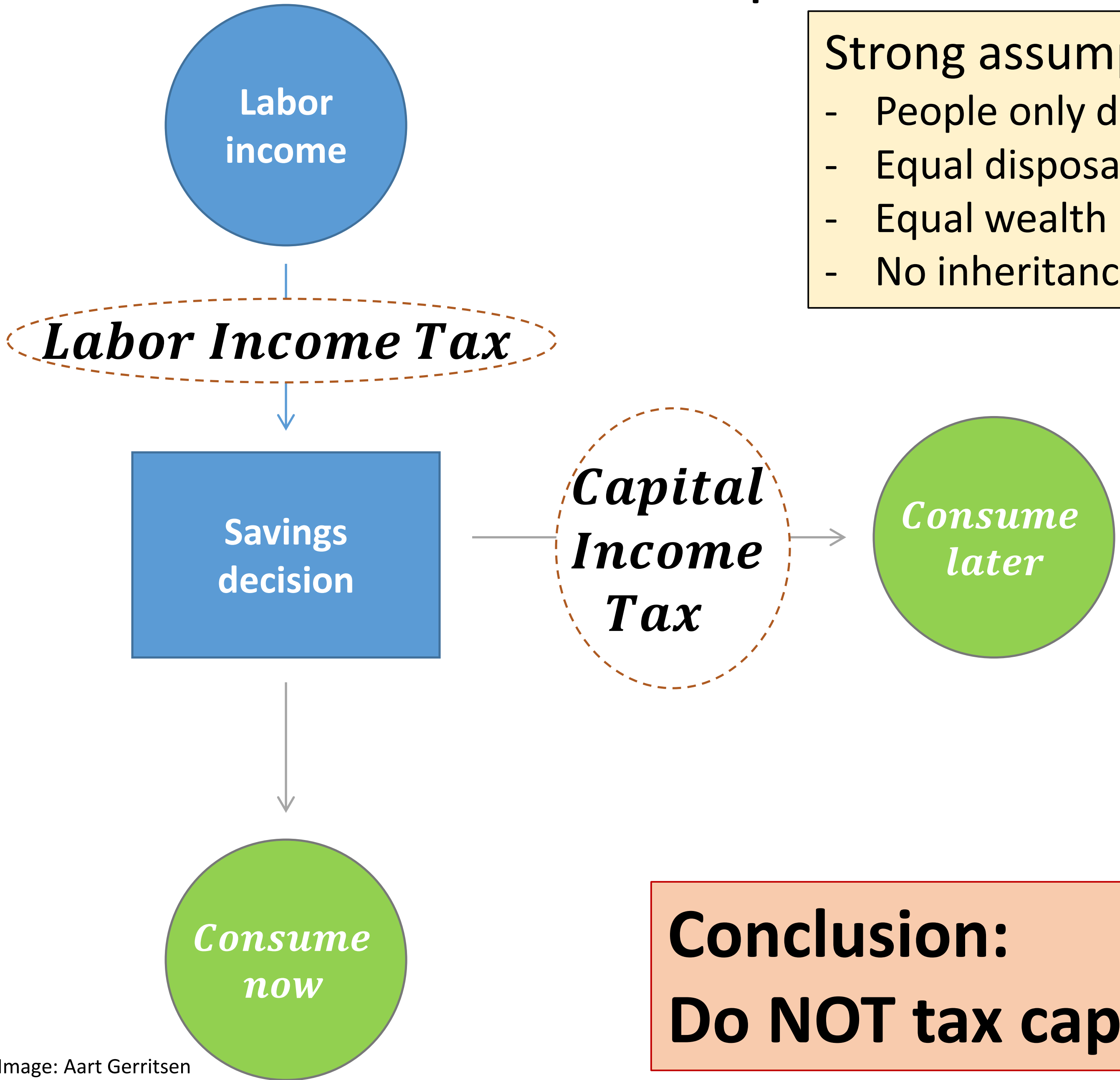
- Do not study capital income tax in isolation

## How to structure the tax mix:

- collect given tax revenue
- reaching desired redistribution
- at minimal economic cost?



# Should We Tax Capital Income?




Strong assumptions:
- People only differ in ability to earn labor income
- Equal disposable income → equal wealth
- Equal wealth → equal capital income
- No inheritance, no "luck", no market power, …

Labor-income taxes:
- Redistribute and distort labor income

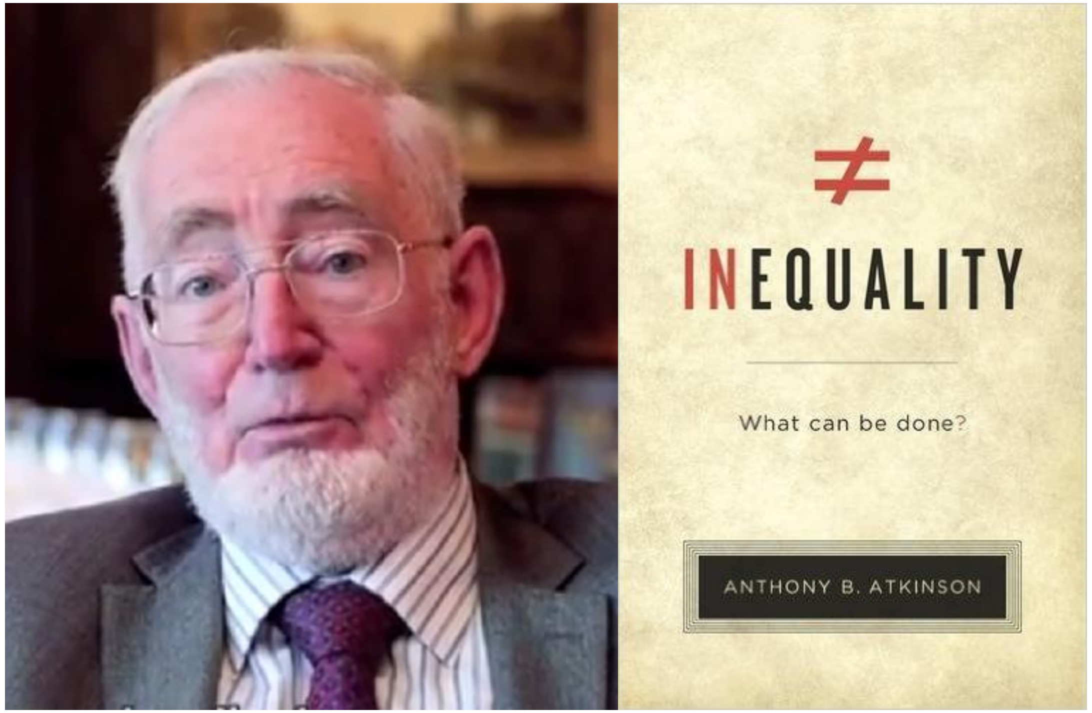
Capital-income taxes:
- Redistribute labor income
- Distort labor income
- AND distort savings decision

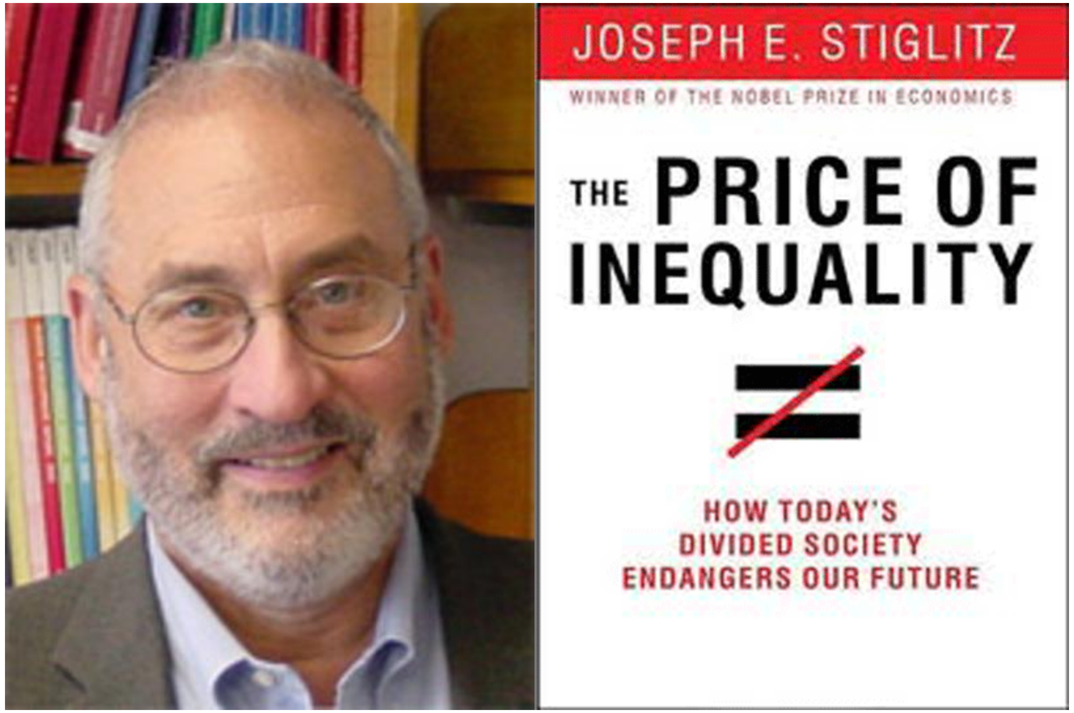
**Conclusion:**
**Do NOT tax capital income**

Image: Aart Gerritsen

# Should We Tax Capital Income?

## Atkinson and Stiglitz (1976) theorem




- Assumptions of Atkinson-Stiglitz theorem are too strong
- Yet clear evidence: do not tax labor income and capital income equally

# Conclusion 1: No comprehensive income tax

# When should we tax capital income?

Very strong assumptions:
- No inheritance
- Equal disposable income → equal wealth
- Equal wealth → equal capital income
- No "luck"
- Perfect markets


## Reasons to introduce capital income tax:

1. Remove existing distortions in the economy (=increase efficiency)
2. Redistribute in ways that cannot be achieved using labor income tax

# Efficiency Reasons to Tax Capital Income

1. Many individuals cannot borrow to bridge difficult periods
   → too much “precautionary” savings from social perspective
   → capital income tax decreases this distortion
   → redistribute towards those who need it
2. No insurance policies against bad investments / unemployment
   → information problem: bad luck or bad effort?
   → social security is limited for the same reason
   → again: precautionary saving
   → capital income tax decreases this distortion
   → redistribute towards those who need it
3. Labor income tax discourages education/training/career
   → individuals rather save to increase future consumption
   → shift tax burden to capital income
4. Wealthy individuals work less/retire earlier
   → shift tax burden to capital income to reduce distortion by labor tax

# Efficiency Reasons to Tax Capital Income

5. Scale advantages in wealth management
   Part of CRESUS project: *Gerritsen, Jacobs, Rusu and Spiritus (2019)*

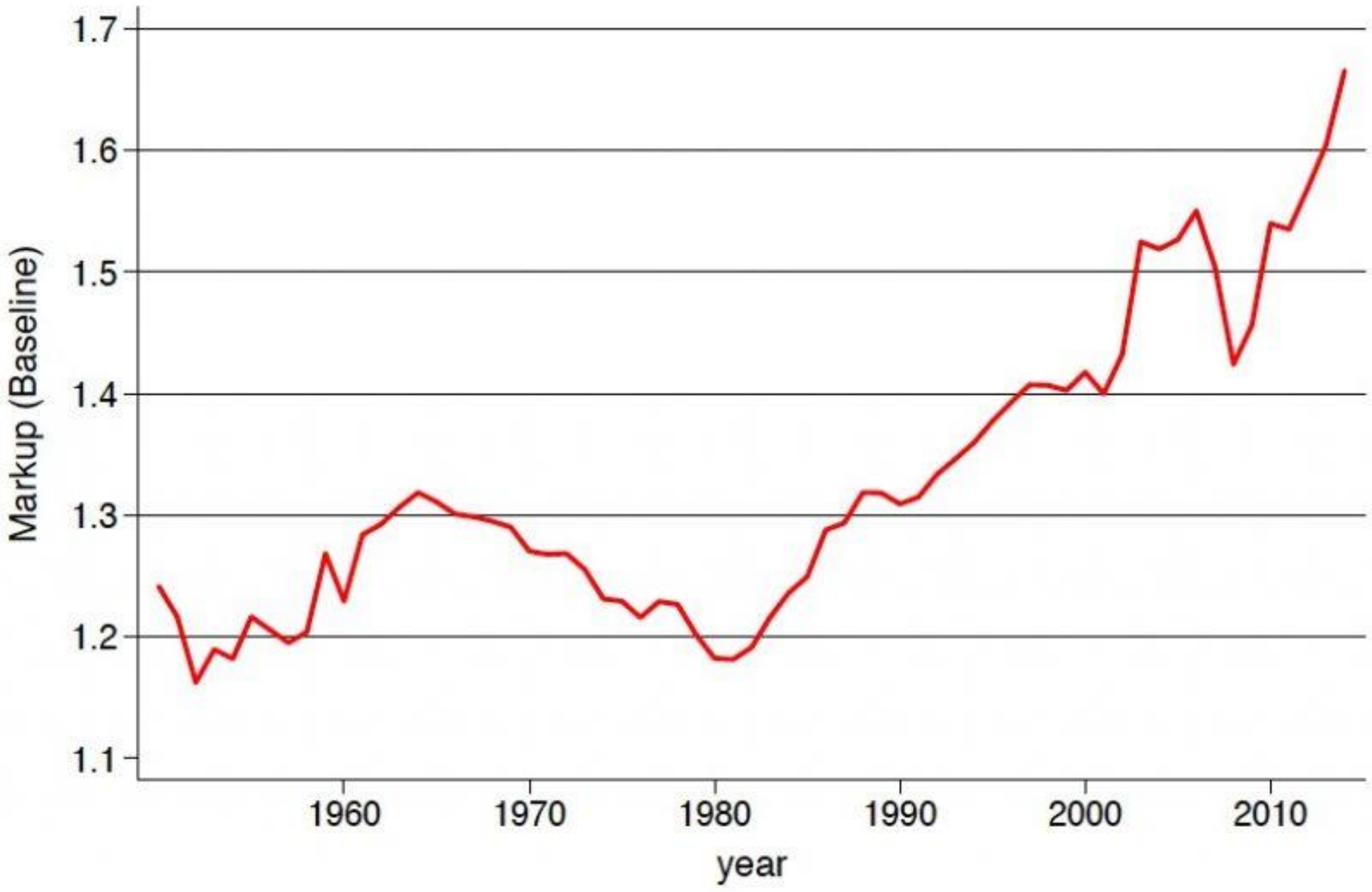
   → wealthier individuals obtain higher rates of return
   → would like to borrow money from the poor and invest at higher return
   → not realized due to market frictions
   → lower tax on labor income, tax capital income later in life
   → government “saves on behalf of the poor”, realize returns to scale
   → optimal tax: $\sim 45\%$

# Efficiency Reasons to Tax Capital Income

6. Not all capital income is "deserved"
   → "deserved" capital rewards patience or risk taking at market prices
   → "*economic rents*" are underserved incomes
   → e.g. housing prices increase when city builds a park nearby
   → e.g. increasing importance of market power

# Increasing Market Power

Markups (price above cost of production) have strongly increased:

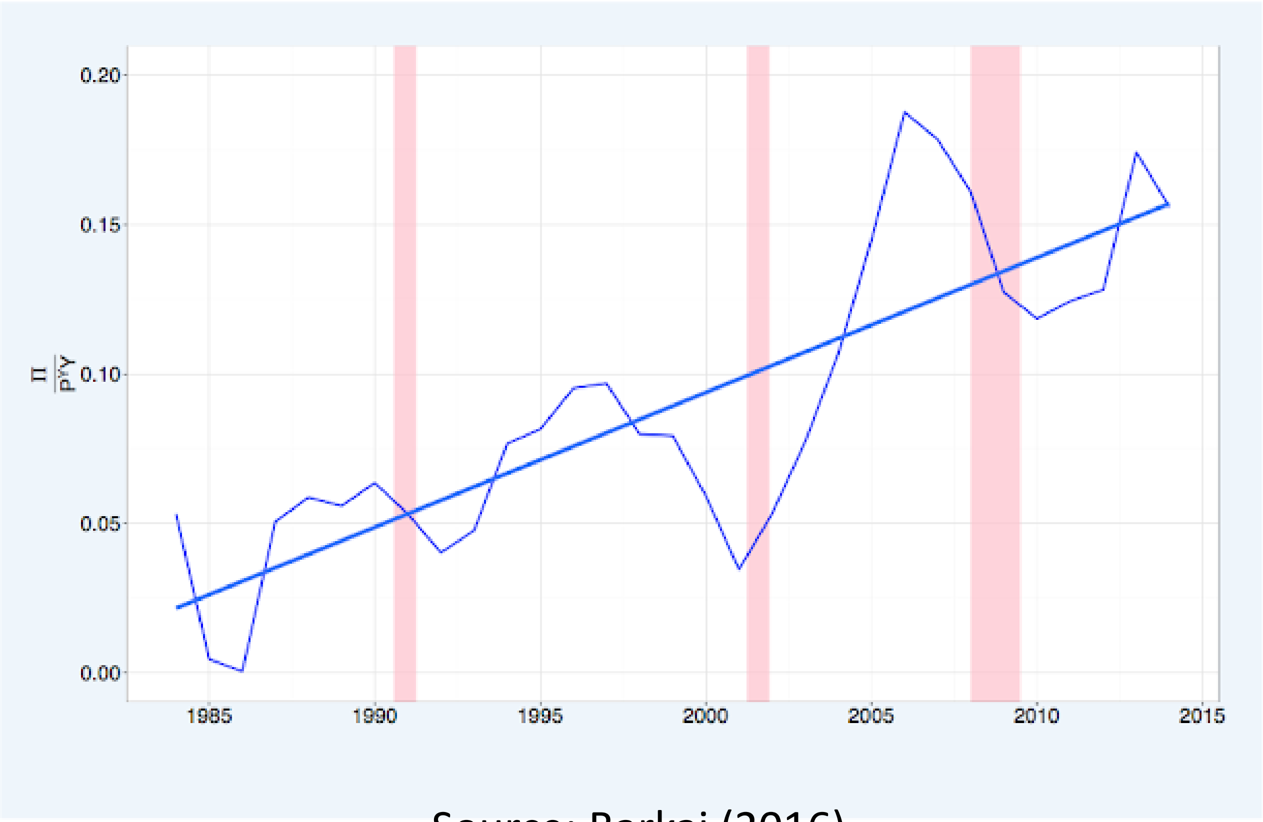



Source: De Loecker and Eeckhout (2017)

# Increasing Market Power

Profits have strongly increased:

Figure 3: **The Profit Share of Gross Value Added**
The figure shows the profit share of gross value added for the U.S. non-financial corporate sector over the period 1984–2014. Profits are defined as gross operating surplus less total capital payments ($\Pi = P^Y Y - wL - RP^K K$ – taxes on production and imports less subsidies). Capital payments are the product of the required rate of return on capital and the value of the capital stock. The required rate of return on capital is calculated as $R = (i - \mathbb{E}[\pi] + \delta)$. Capital includes both physical capital and intangible capital. The cost of borrowing is set to Moody's Aaa bond yield and expected inflation is calculated as a three-year moving average. See Section 2 for further details.




Source: Barkai (2016)

# Efficiency Reasons to Tax Capital Income

6. Not all capital income is "deserved"
   → "deserved" capital rewards patience or risk taking at market prices
   → "*economic rents*" are underserve incomes
   → e.g. housing prices increase when city builds a park nearby
   → e.g. increasing importance of market power
   → given that no effort done for these incomes: tax them at no cost!
7. If we tax wealth rather than capital income:
   → redistribute *unproductive* wealth

# Tackle distortions where you can

# Efficiency Reasons to Tax Capital Income

8. Labor incomes can be disguised as capital incomes
   → set up a corporation, receive dividends rather than salary
   → tax capital income to maintain integrity of the tax system

# Conclusion 2: Careful with dual income tax

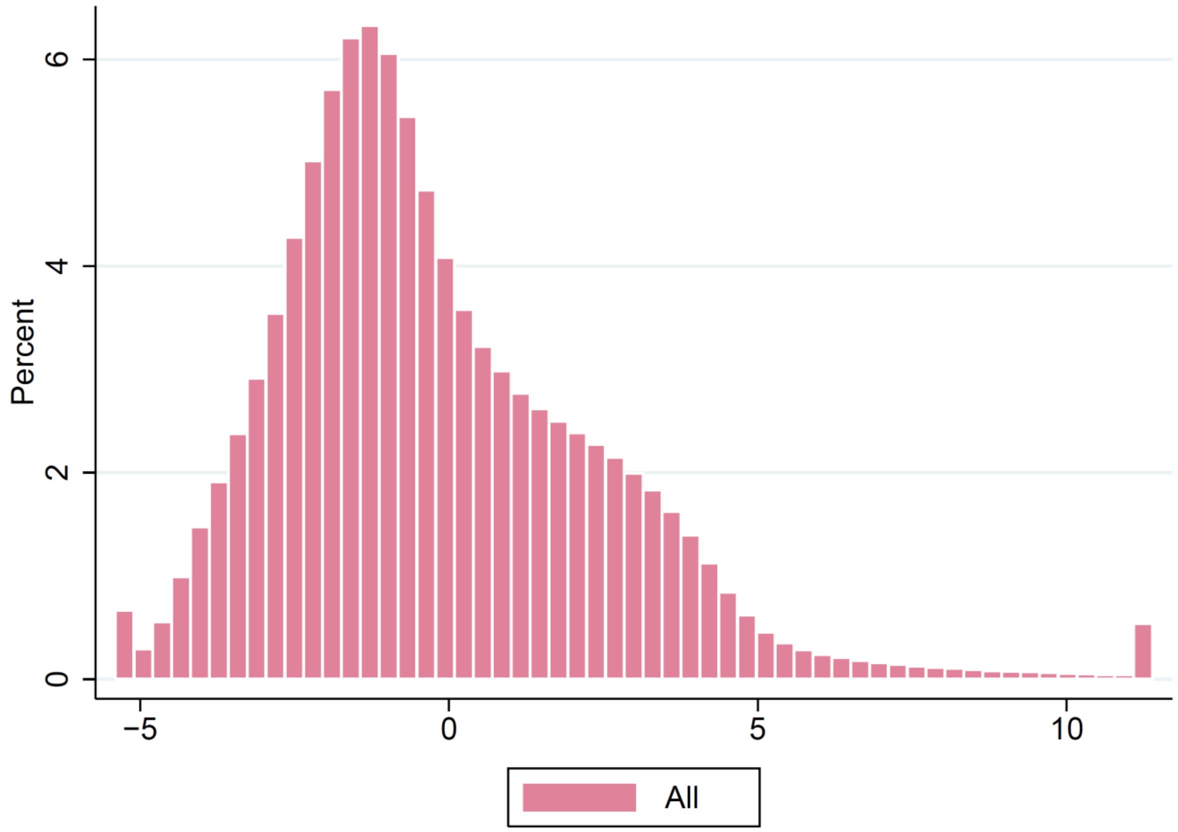
→ Make sure capital income tax is not too much lower than labor income tax

# Distributional Reasons to Tax Capital Income

1. Some individuals are more able investors
   Part of CRESUS project: *Gerritsen, Jacobs, Rusu and Spiritus (2019)*
   → differences in financial literacy (expensive credit card loans, suboptimal portfolio choices, stock picking, …)
   → CEO's make a difference (e.g. in family business)
   → strong empirical evidence

# Different rates of return

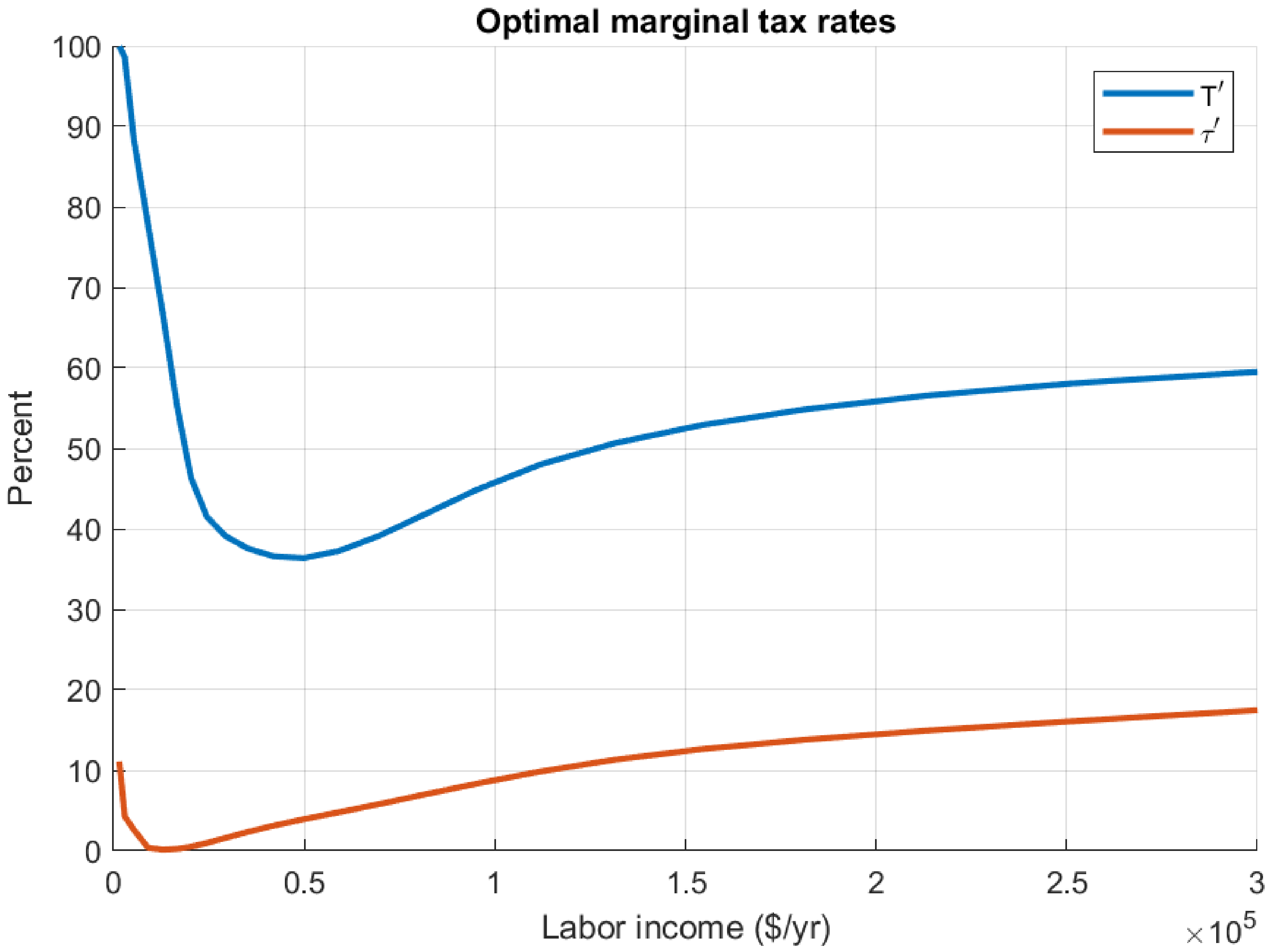
**Figure 9.** The distribution of estimated return fixed effects




*Notes:* The figure shows the histogram of the estimated fixed effects in the wealth return regression using estimates in Table 2, column 3. Values above the 99.5 percentile have been grouped in a single category and also value below the 0.5 percentile. Figures are in percent.

*Source: Fagereng* et al. *(2016)*

# Different rates of return




*Source: Gerritsen, Jacobs, Rusu and Spiritus (2019)*

# Distributional Reasons to Tax Capital Income

2. Some individuals are more lucky than others
   → important when shares not publicly traded
   (importance of family businesses)
   → capital income tax redistributes from the lucky to the unlucky
   → if done correctly, this does not discourage investment (see later)
3. More able individuals save more and receive higher inheritance
   → use this information to redistribute using capital income tax
   → allows reducing labor income tax
4. Labor income and capital income not perfectly correlated
   Part of CRESUS project: Lehmann, Renes, Spiritus, Zoutman (2019)
   see also presentations of Sarah Kuypers and Sarah Marchal
   → wealth contains additional information about ability to contribute
   → redistribute more effectively
   → work in progress

# Reasons to Tax Capital Income

- **Credit & insurance market failure**
- Labor income tax discourages **human capital investment**
- **Wealthy** individuals **work less/retire** earlier
- **Scale effects** in wealth management
- Economic **rents**
- **Labor income disguised** as capital income
- **Heterogeneous rates** of return
- **Luck**
- More **able individuals save more**
- More **able individuals** receive **higher inheritance**
- Capital and labor income **not perfectly correlated**

# How to Tax Capital Income

Kleven (2014):
Scandinavian countries combine high tax rates with strong economic outcomes

Lessons:

- Reduce tax distortions through tax-benefit system
  (e.g. subsidize childcare and transportation to work, tax capital income)
- Have a broad tax base → less tax avoidance
- Information trails → less tax evasion

# How to Tax Capital Income

## Conclusion 3a: treat all assets equally

- easy to convert assets using financial instruments
  e.g. exception for registered securities (*effecten op naam*) really is a bad idea
- exceptions divert resources from other investments
  e.g. housing subsidy: people live in larger houses
  → housing market bubbles, impairs financial stability
- exceptions often redistribute income to the rich
  → tax system less effective, high tax on labor income
  e.g. housing subsidy benefits the rich
- same tax treatment for bank deposits, shares in privately owned or publicly traded business, bonds, housing wealth, …

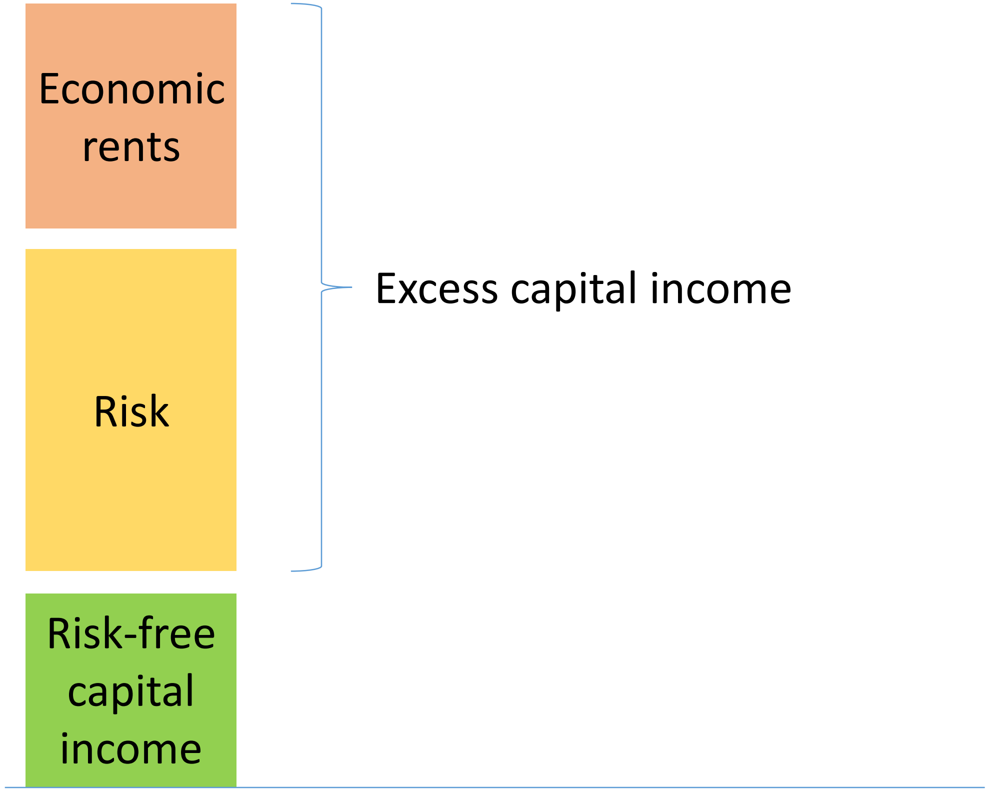
# How to Tax Capital Income

## Conclusion 3b: treat all capital incomes equally

- Easy to create financial instruments that convert one type into another
  → no reason to treat capital gains, liquidation, … differently
- Not doing so again distorts investment decisions
- Include housing rents and imputed rents
- Subtract capital costs (e.g. interests paid, …)
- Subtract corporate income taxes paid
  → **reduces incentive to move to low-tax jurisdictions**

# How to Tax Capital Income

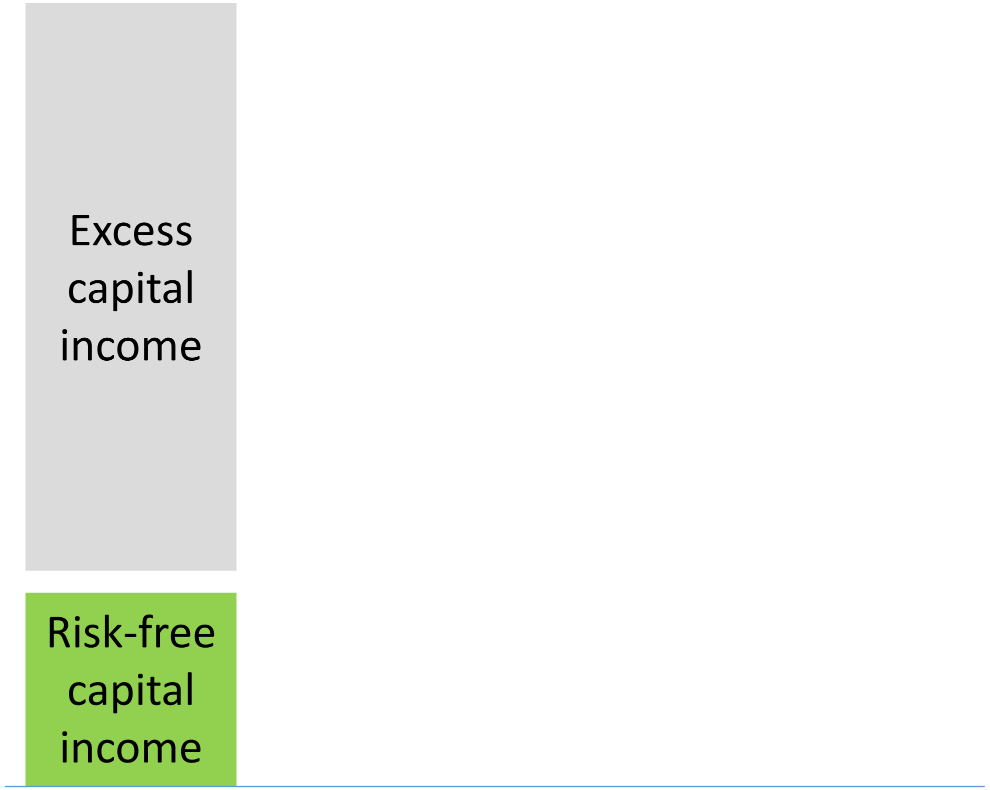
- Constituents of capital income




Problem: Cannot distinguish economic rents from risk

# How to Tax Capital Income

- Constituents of capital income

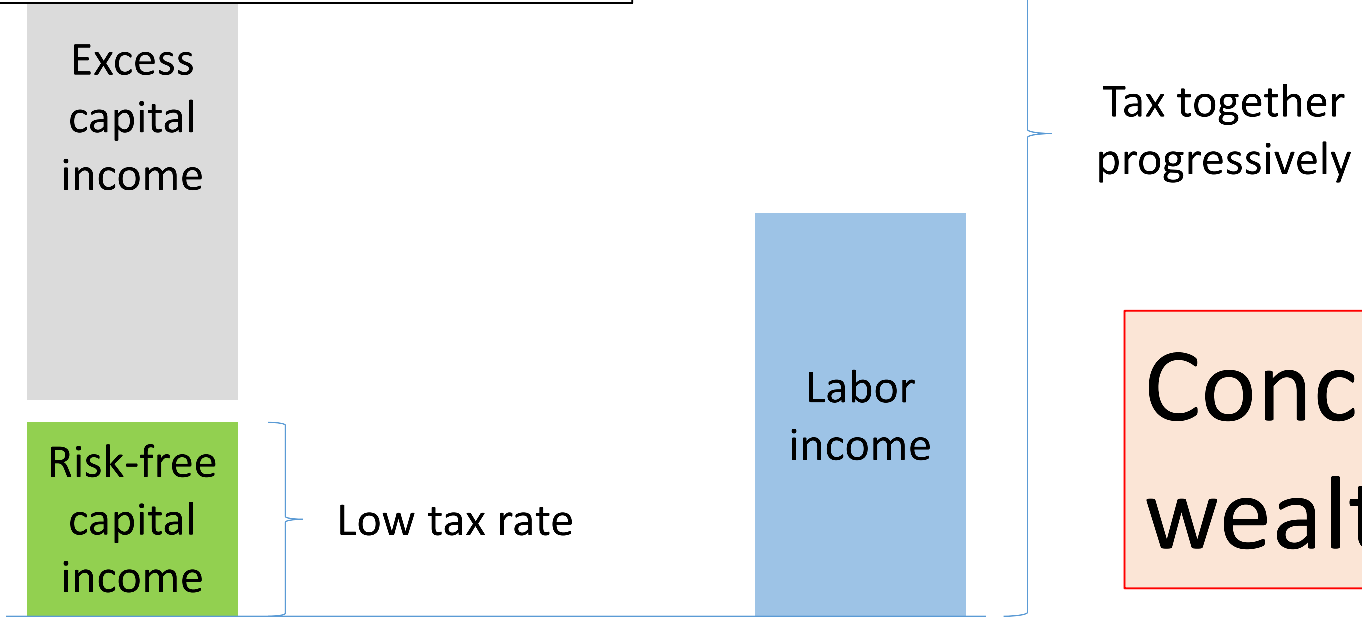



Problem: Cannot distinguish economic rents from risk

# The Rate of Return Allowance

- Rate of Return Allowance (Mirrlees Review 2011):

We need a wealth register to implement this
+ Easier to detect evasion




Conclusion 4: introduce a wealth register

# The Rate of Return Allowance

- Rate of Return Allowance (Mirrlees Review 2011):

We need a wealth register to implement this
+ Easier to detect evasion

Economic rents

Risk

Labor income

Tax together progressively

Advantage: tax economic rents at higher tax rate

But: won't this discourage risk?

Risk-free capital income

Low tax rate

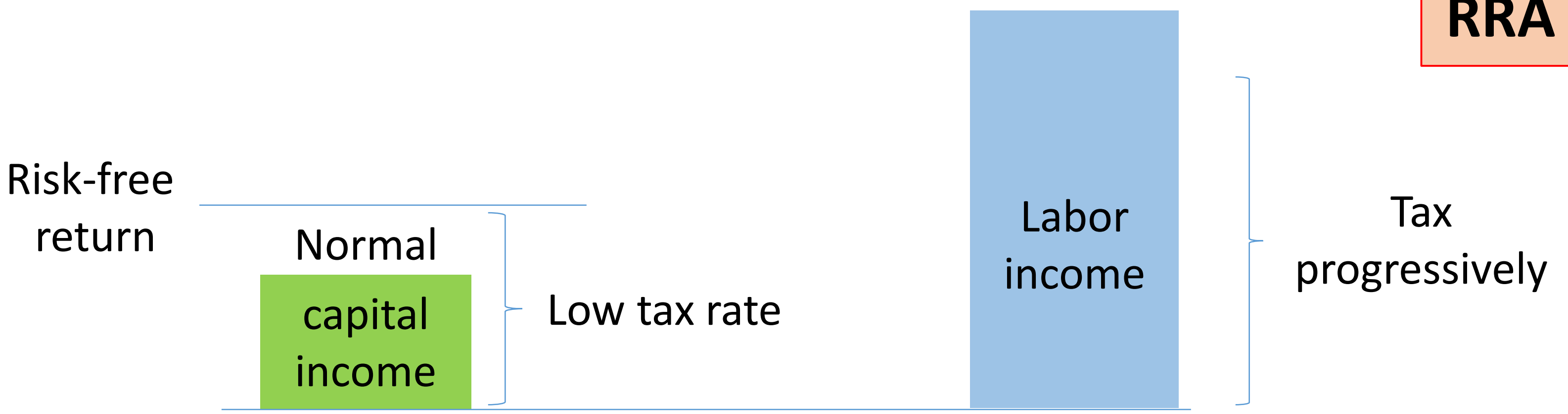
Conclusion 4: introduce a wealth register

# The Rate of Return Allowance

- Rate of Return Allowance and risk:

Government takes on part of the risk
“Silent partner” in investment

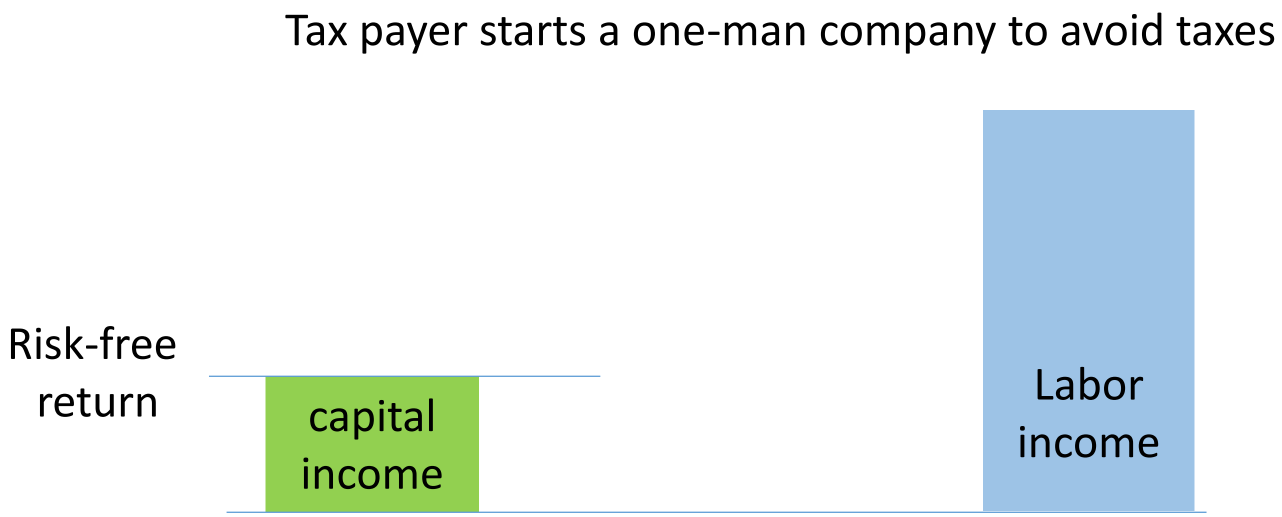
**RRA does not discourage investment!**




Part of CRESUS project: *Boadway and Spiritus (2019)*
Optimal RRA balances private risk against uncertainty of government revenue
**RRA diminishes impact of recessions**

# The Rate of Return Allowance

- How about income shifting?

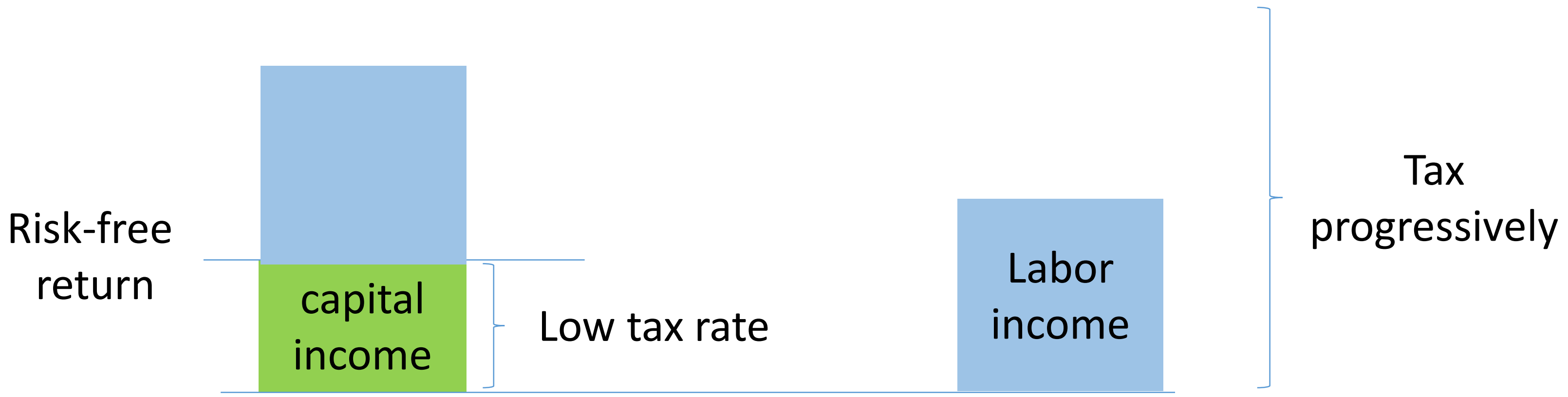


# The Rate of Return Allowance

- How about income shifting?

**RRA reduces incentive to avoid taxes through paper companies**

Government applies the RRA



# The Rate of Return Allowance

When to pay taxes?

- Liquid assets: immediately (at end of fiscal year)
- Illiquid assets: postpone payment until realization of capital gains
  - Market value often does not exist
  - Not easy to sell quickly → immediate liability could lead to problems

Won't people postpone realization of capital gains forever?

# Conclusion 5: levy interests on postponed tax payments

→ If unknown timing, assume linear accrual

# Recommendations for Taxation of Capital Income

1. No comprehensive income tax
2. Careful with dual income tax
   (low tax rate on capital income leads to paper companies)
3. Treat all assets and capital incomes equally
   (tax capital gains! and abolish housing subsidies)
4. Have a wealth register
5. Levy interests on postponed tax payments

And 6. If you are convinced, go for a Rate of Return Allowance

Thank you for your attention!