

This presentation contains animations. It is best viewed in presentation mode in Powerpoint.

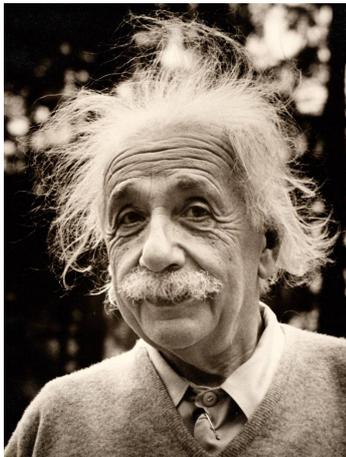
The Optimal Taxation of Capital Income

Insights from Economic Theory

Kevin Spiritus
Erasmus University Rotterdam

Presentation at "lunch debates" - 29 March 2018
Belgisch Instituut voor openbare financiën

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

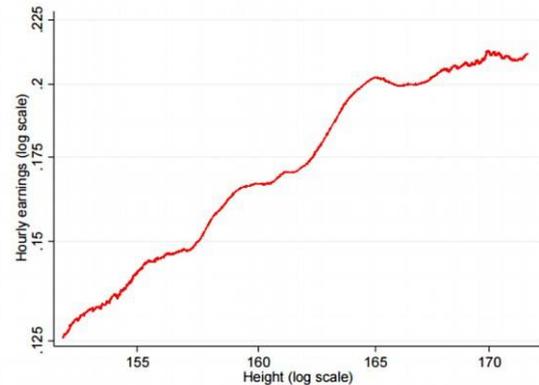
- Tax liability should depend on ability to pay
- How important? → Political choice

Principles of Optimal Taxation

How much effort needed to earn given income?

- IQ, physical strength
- Length, physical attractiveness
- Skin Color
- Gender
- Age
- Caring Parents
- ...

Figure 3. Relationship between hourly earnings and height



Note: Locally weighted smoothed scatterplots with biweight kernel and 20% bandwidth.

Principles of Optimal Taxation

What if we tax innate characteristics?

- Labor supply would go up
- Tax declaration would be much simpler

But:

- Discrimination
- Easy to lie about some characteristics



Horizontal Equity

Do not tax based on "irrelevant" characteristics
What is "relevant"? → Political choice

Conclusion:
Tax incomes and consumption

Efficiency Costs of Taxation: Labor Income Tax

Example: market wage without tax 9 €

Tax labor income 30%

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

→ Decrease economic activity

Efficiency Costs of Taxation: Capital Income Tax

Example: 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

→ Decrease economic activity

Efficiency Costs of Taxation

Problem is not: "less jobs" or "less investment"

Because: "more leisure" and "more immediate consumption"

Households make "preferred" choices

→ would make different choices if government not "in the way"

Government collects given revenue

→ responses to taxation decrease tax revenue

→ further increase taxes

→ lost resources: "excess burden"

Incorporating Desire for Redistribution

Suppose government had 11 million euro to give away

11 million Belgians

How much would everyone get?

No redistribution: everyone gets 1 €

Care about redistribution:

- Rich receive less: $< 1 \text{ €}$
- Poor receive more: $> 1 \text{ €}$

"Social welfare weights"



Optimal Tax on Labor Income

$$\text{marginal tax rate} = \frac{1 - g}{1 - g + a \cdot e}$$

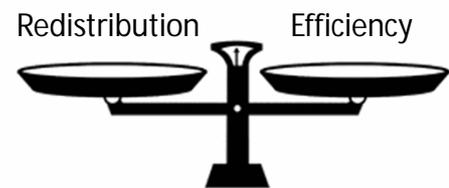
g : social welfare weights higher incomes
 e : behavioral responses
 a : equality at higher incomes

Higher tax on labor income if:

- Care more about redistribution (lower social welfare weights at higher incomes)
- More unequal incomes

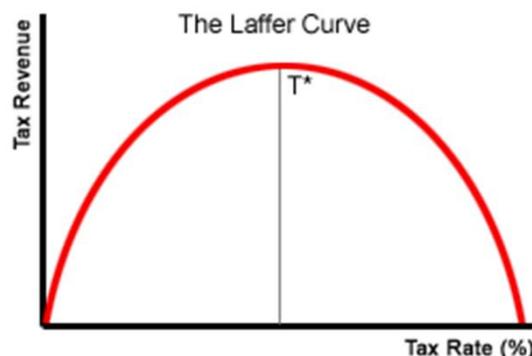
Lower tax on labor income if:

- Stronger responses to taxation



Balance redistribution against efficiency

Maximize Revenue From the Rich



Copyright 2003 - Investopedia.com

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%

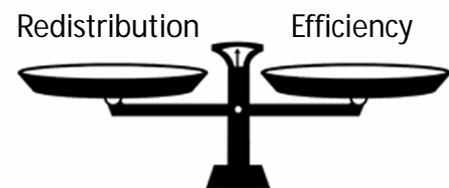
Should We Tax Capital Income?

Study tax system as a whole

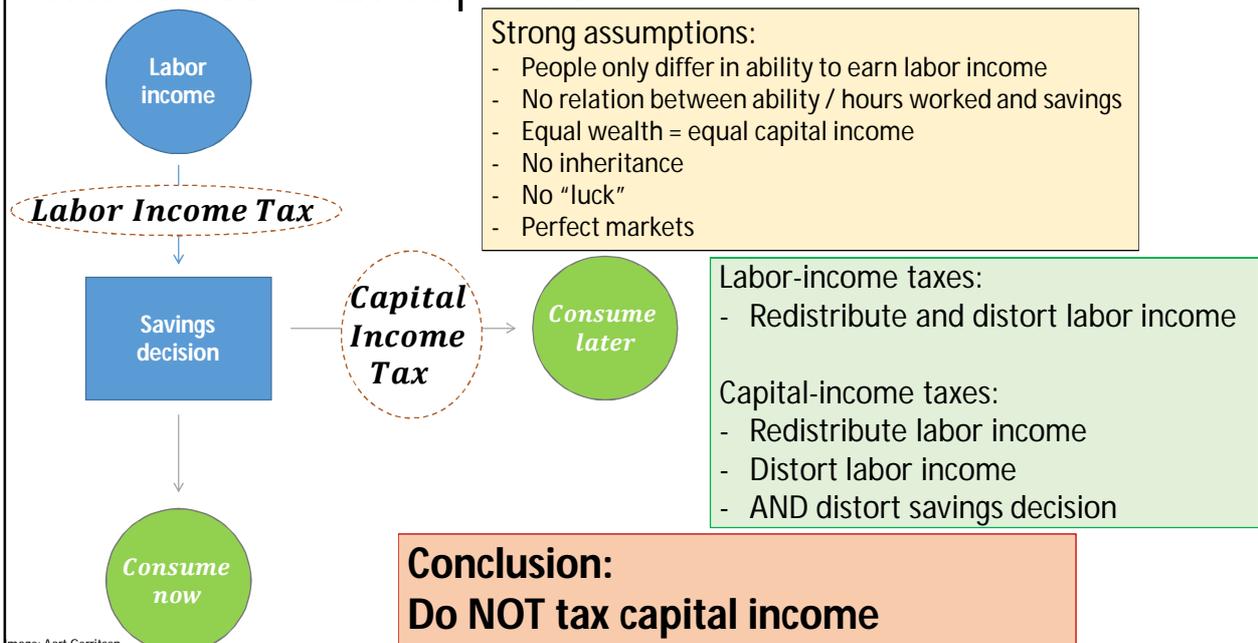
- Do not study capital income tax in isolation

How to structure the tax mix:

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

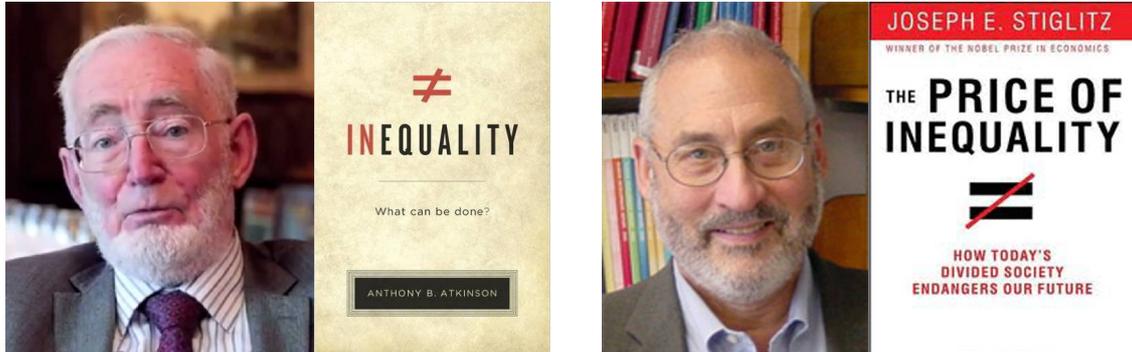


Should We Tax Capital Income?



Should We Tax Capital Income?

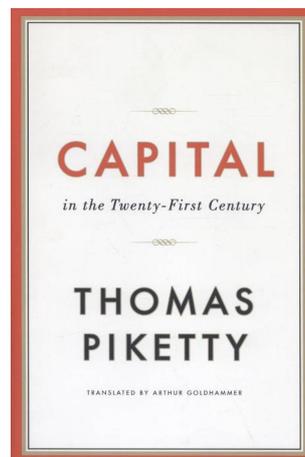
Atkinson and Stiglitz (1976) theorem



- 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

Should We Tax Capital Income?



Piketty (2014)

When should we tax capital income?

Very strong assumptions:

- No inheritance
- No relation between ability / hours worked and savings
- 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

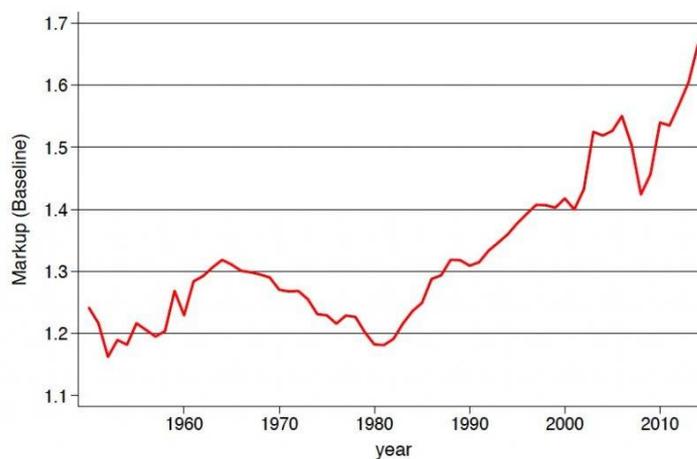
1. Labor income tax discourages education/training/career
 - individuals rather save to increase future consumption
 - shift tax burden to capital income
2. Wealthy individuals work less/retire earlier
 - shift tax burden to capital income to encourage work
3. Many individuals cannot borrow to bridge difficult periods
 - precautionary saving: "implicit subsidy on savings"
 - too much savings from social perspective
 - capital income tax decreases this distortion
4. 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

Efficiency Reasons to Tax Capital Income

5. 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 ($\Pi = P^N Y - wL - RP^K$ - 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 $R = (i - \Sigma[\pi] + \delta)$. 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

5. 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!

Tackle distortions where you can

6. 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

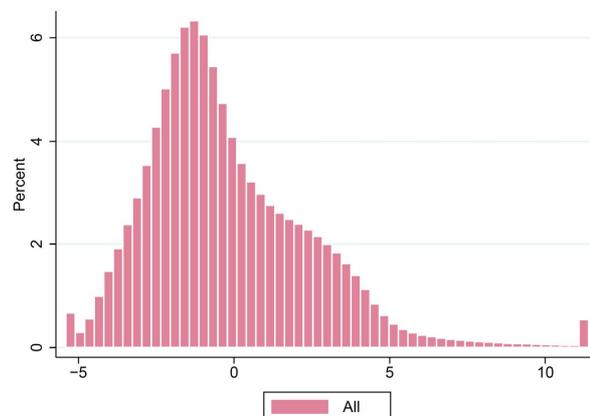
→ Make sure capital income tax is not much lower than labor income tax

Distributional Reasons to Tax Capital Income

1. Some individuals are more able investors
 - 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)

Distributional Reasons to Tax Capital Income

1. Some individuals are more able investors
 - differences in financial literacy (expensive loans, suboptimal portfolio choices, stock picking, ...)
 - CEO's make a difference (e.g. in family business)
 - strong empirical evidence
2. Some individuals are more lucky than others
 - important when shares not publicly traded (importance of family businesses in Belgium!)
 - 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 decreasing labor income tax

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, 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, ...

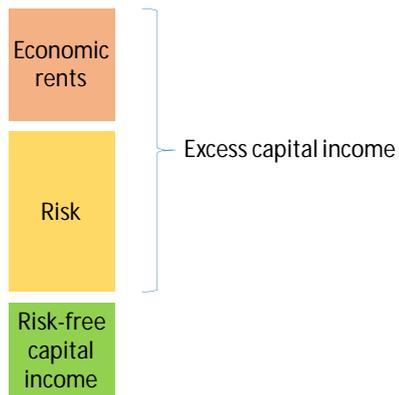
How to Tax Capital Income

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

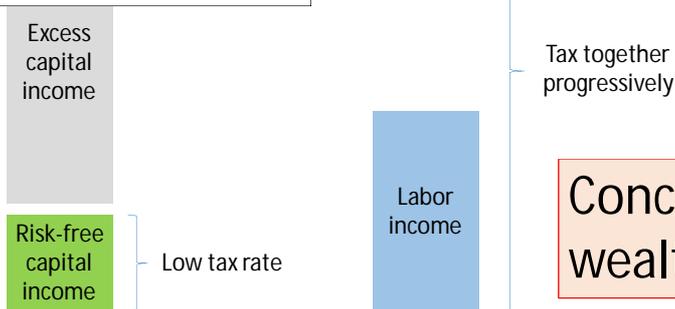


Problem: Cannot distinguish economic rents from risk

The Rate of Return Allowance

- Rate of Return Allowance (Mirrlees Review 2011):

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

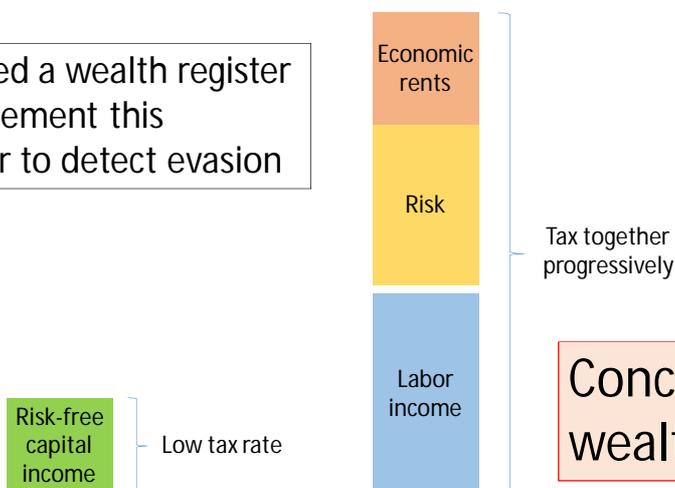


Conclusion 4: introduce a wealth register

The Rate of Return Allowance

- Rate of Return Allowance (Mirrlees Review 2011):

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



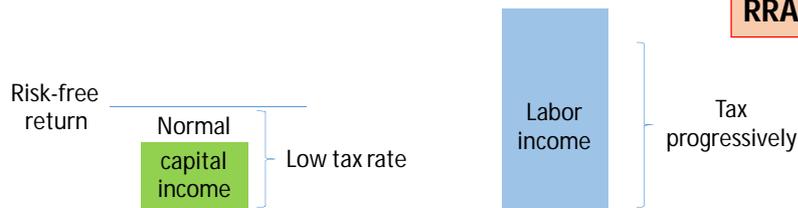
Advantage: tax economic rents at higher tax rate

But: won't this discourage risk?

Conclusion 4: introduce a wealth register

The Rate of Return Allowance

- Rate of Return Allowance and risk:



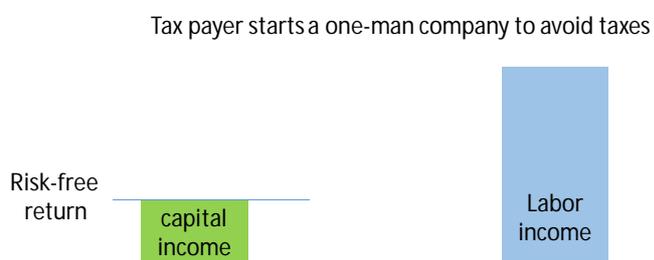
Government takes on part of the risk
"Silent partner" in investment

RRA does not discourage investment!

Tax liabilities lower in bad economic times
RRA diminishes impact of recessions

The Rate of Return Allowance

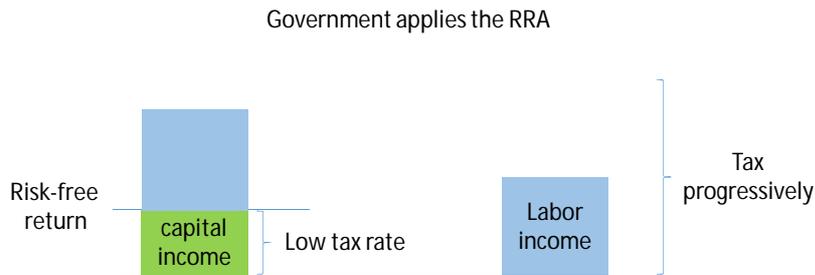
- How about income shifting?



The Rate of Return Allowance

- How about income shifting?

RRA reduces incentive to avoid taxes through paper companies



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!