

# Top Incomes

Prof. Lutz Hendricks

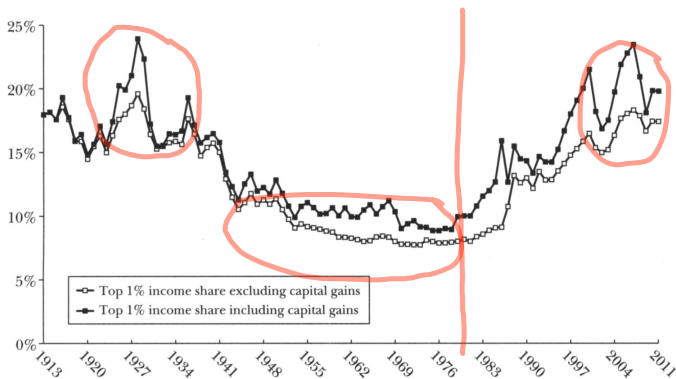
Econ890, Spring 2021

March 23, 2021

# Rising Incomes at the Top

Figure 1

Top 1 Percent Income Share in the United States



Source: Source is Piketty and Saez (2003) and the World Top Incomes Database.

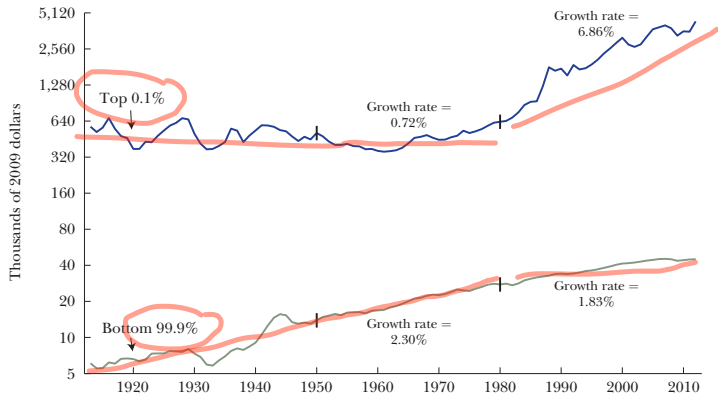
Notes: The figure reports the share of total income earned by top 1 percent families in the United States from 1913 to 2011. Income is defined as pre-tax market income; it excludes government transfers and nontaxable fringe benefits. The figure reports series including realized capital gains (solid squares) and series excluding realized capital gains (hollow squares).

Alvaredo et al. (2013)

# The rich and the rest

Figure 1

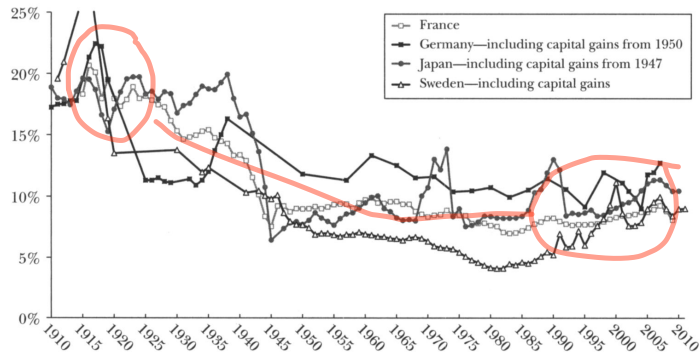
GDP per Person, Top 0.1 Percent and Bottom 99.9 Percent



Source: Jones (2015)

# International Comparisons

B: Top 1 Percent Income Shares in Continental Europe and Japan (L-Shape)



Source: The World Top Incomes Database.

Alvaredo et al. (2013)

The U.S. is an outlier.

# Measurement Issues

Guvenen and Kaplan (2017)

- ▶ IRS data show a big increase in top income shares after the 1986 Tax Reform Act.
- ▶ Shifting income to pass-through entities.
- ▶ SSA data do not show this.
- ▶ Income shifting rather than income growth at the top?

# Causes of Rising Top Incomes

# Causes of rising top incomes

1. **Technological change** / globalization favor high skilled workers.
2. **CEO pay**: Gabaix and Landier (2008)
3. **Superstars**
4. **Lower taxes**
  - 4.1 incentives to work hard
  - 4.2 less tax avoidance

## A key debate

Do top incomes rise because of market forces (efficient) or because of rent seeking (tax them!)

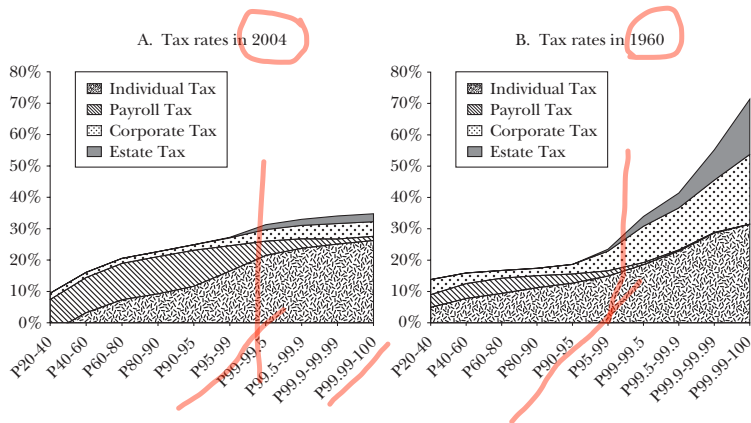
- ▶ Kaplan and Rauh (2013)
- ▶ Bivens and Mishel (2013)
- ▶ Mankiw (2013)



# Federal taxes are getting less progressive.

Figure 1

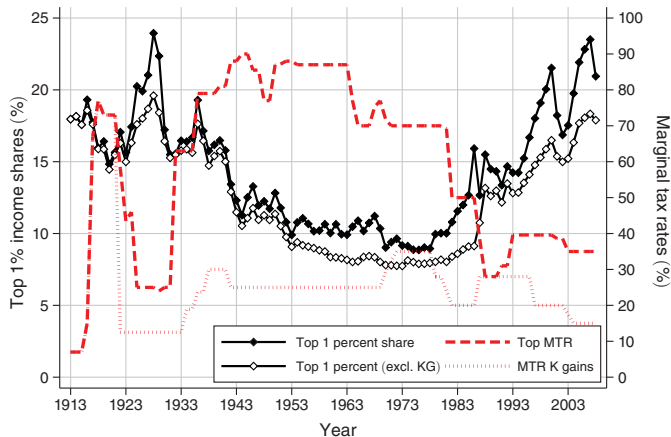
## Federal Tax Rates in the United States in 2004 and 1960



Source: Piketty and Saez (2007)

# Top Tax Rates

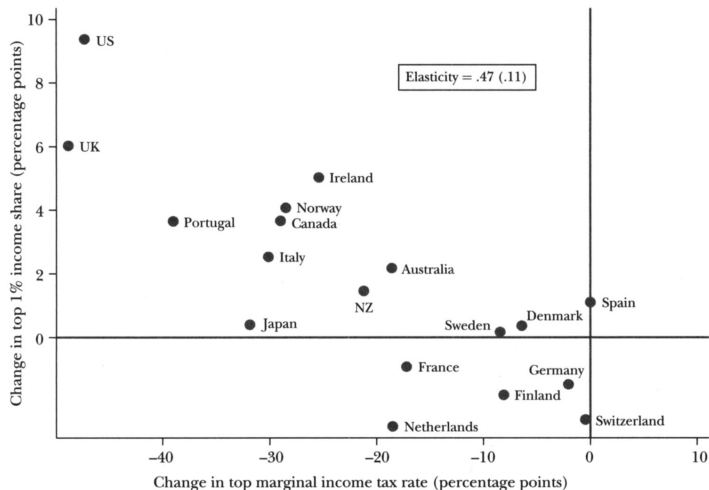
Panel A. Top 1 percent income shares and Top MTR



Piketty et al. (2014)

# Taxes and Top Income Shares

**Changes in Top Income Shares and Top Marginal Income Tax Rates since 1960**  
(combining both central and local government income taxes)



Alvaredo et al. (2013)

# Taxing Top Incomes

## Elasticities approach

Derive the revenue maximizing tax rate as a function of behavioral elasticities.

Piketty et al. (2014)

- ▶  $e$ : elasticity of top income w.r.to top tax rate
- ▶ choose  $\tau$  to max

$$T = \tau [z(1 - \tau) - \bar{z}] \quad (1)$$

where

- ▶  $z(1 - \tau)$  denotes taxable earnings and
- ▶  $\bar{z}$  is the cutoff for the top bracket
- ▶ optimal tax rate:
$$\tau^* = \frac{1}{1 + a \times e} \quad (2)$$
- ▶ where  $a = z / (z - \bar{z})$  is the tail parameter of the Pareto distribution of  $z$ .

# Extensions

## Tax avoidance

Bargaining increases top income share when taxes are low.

Then the revenue maximizing tax rate is

$$\tau^* = \frac{1 + t \times a \times e_2 + a \times e_3}{1 + a \times e} \quad (3)$$

where

- ▶  $e$ : elasticity of top income w.r.to top tax rate
- ▶  $e_2$ : elasticity due to tax avoidance
- ▶  $e_3$ : elasticity due to bargaining
- ▶  $t$ : tax rate on sheltered income

# Implications

Rough evidence:  $e \approx 0.5$

Pareto coefficient about  $a \approx 1.5$

Then  $\tau^* = \frac{1}{1+0.5 \times 1.5} = 0.57$ .

Tax avoidance:  $e_2 = 0.3 \implies \tau^* = 0.62$

Add bargaining  $\implies \tau^* = 0.83$

# Limitations

- ▶ This only applies to the top tax rate.
- ▶ What if taxing the top affects the incomes of others?
- ▶ What if taxing the top discourages investment needed to reach the top?



# Taxing Top Incomes

Little obvious evidence that high top marginal tax rates affect output, investment, growth.

- ▶ constant U.S. output growth for 130 years
- ▶ no correlation between growth and changes in top marginal rates (cross-country)

Suggests that high top rates may be optimal.

- ▶ but Jaimovich and Rebelo (2017) dispute this (non-linear effects of taxes)

# Structural Models

Castaneda et al. (2003) style CGE models:

- ▶ Krueger and Kindermann (2020): very high optimal labor income tax rates
- ▶ Guner et al. (2016): 37% optimal top income tax rate
- ▶ Limitation: the rich are lottery winners, so why not tax them?

## More interesting models

When **top incomes are built up over time**, elasticities are larger

- ▶ optimal top rates are lower.
- ▶ Badel et al. (2020): investment in human capital
- ▶ Jones (2019): investment in R&D

Similar idea: **building up businesses** (entrepreneurship)

- ▶ a few studies using Quadrini style models: **Kitao** (2008), Brüggemann (2017), Imrohoroglu et al. (2018)
- ▶ but firms don't do anything in these models
- ▶ so why not tax them?

# Conclusion

Little is settled.

Taxes are a good candidate cause for rising top income shares.

Theoretical optimal top marginal rates are all over the place.

Models are very rudimentary and miss what the policy debate is all about:

- ▶ entrepreneurs create "good jobs", productivity growth
- ▶ startups later become large firms

Note: Very little is known about taxing wealth.

## References I

- Alvaredo, F., Atkinson, A.B., Piketty, T., Saez, E., 2013. The Top 1 Percent in International and Historical Perspective. *The Journal of Economic Perspectives* 27, 3–20. URL: <http://www.jstor.org/stable/41955542>.
- Badel, A., Huggett, M., Luo, W., 2020. Taxing Top Earners: a Human Capital Perspective. *The Economic Journal* 130, 1200–1225. URL: <https://academic-oup-com.libproxy.lib.unc.edu/ej/article/130/629/1200/5741697>, doi:10.1093/ej/ueaa021. publisher: Oxford Academic.
- Bivens, J., Mishel, L., 2013. The Pay of Corporate Executives and Financial Professionals as Evidence of Rents in Top 1 Percent Incomes. *The Journal of Economic Perspectives* 27, 57–77. URL: <http://www.jstor.org/stable/41955545>. publisher: American Economic Association.

## References II

- Brüggemann, B., 2017. Higher taxes at the top: The role of entrepreneurs .
- Castaneda, A., Diaz-Gimenez, J., Rios-Rull, J.V., 2003. Accounting for the US earnings and wealth inequality. *Journal of political economy* 111, 818–857. URL: <https://www.jstor.org/stable/10.1086/375382>.
- Gabaix, X., Landier, A., 2008. Why has CEO Pay Increased So Much? *The Quarterly Journal of Economics* 123, 49–100. URL: <https://academic.oup.com/qje/article/123/1/49/1889842>, doi:10.1162/qjec.2008.123.1.49. publisher: Oxford Academic.
- Guner, N., Lopez-Daneri, M., Ventura, G., 2016. Heterogeneity and government revenues: Higher taxes at the top? *Journal of Monetary Economics* 80, 69–85. URL: <https://doi.org/10.1016/j.jmoneco.2016.05.002>.

## References III

- Guvenen, F., Kaplan, G., 2017. Top Income Inequality in the 21st Century: Some Cautionary Notes. Working Paper 23321. National Bureau of Economic Research. URL: <http://www.nber.org/papers/w23321>, doi:10.3386/w23321.
- Imrohoroglu, A., Kumru, C.S., Nakornthab, A., 2018. Revisiting Tax on Top Income. Technical Report 2018-660. Australian National University, College of Business and Economics, School of Economics. URL: <https://ideas.repec.org/p/acb/cbeeco/2018-660.html>.  
publication Title: ANU Working Papers in Economics and Econometrics.
- Jaimovich, N., Rebelo, S., 2017. Nonlinear Effects of Taxation on Growth. Journal of Political Economy 125, 265–291. URL: <https://www.journals.uchicago.edu/doi/abs/10.1086/689607>, doi:10.1086/689607.

## References IV

- Jones, C.I., 2015. Pareto and piketty: The macroeconomics of top income and wealth inequality. *The Journal of Economic Perspectives* 29, 29–46.
- Jones, C.I., 2019. Taxing Top Incomes in a World of Ideas. Working Paper 25725. National Bureau of Economic Research. URL: <http://www.nber.org/papers/w25725>, doi:10.3386/w25725.
- Kaplan, S.N., Rauh, J., 2013. It's the Market: The Broad-Based Rise in the Return to Top Talent. *The Journal of Economic Perspectives* 27, 35–55. URL: <http://www.jstor.org/stable/41955544>. publisher: American Economic Association.
- Kitao, S., 2008. Entrepreneurship, taxation and capital investment. *Review of Economic Dynamics* 11, 44–69.
- Krueger, D., Kindermann, F., 2020. High marginal tax rates on the top 1%?



## References V

- Mankiw, N.G., 2013. Defending the One Percent. *The Journal of Economic Perspectives* 27, 21–34. doi:[10.1257/jep.27.3.21](https://doi.org/10.1257/jep.27.3.21).
- Piketty, T., Saez, E., 2007. How Progressive Is the U.S. Federal Tax System? A Historical and International Perspective. *The Journal of Economic Perspectives* 21, 3–24. URL: <http://www.jstor.org/stable/30033699>.
- Piketty, T., Saez, E., Stantcheva, S., 2014. Optimal taxation of top labor incomes: A tale of three elasticities. *American economic journal: economic policy* 6, 230–271.