Deciphering the fall and rise in the net capital share
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Evolution of Net Capital Share

Postwar Era:

Two trends in NCS of aggregate income in developed economies
                a rise during last several decades
                a fall that continued until 1970s

Issues in estimation of net share:

   How is aggregate income split between labor and capital?
   What is the current split between the factors?
   How has it evolved over time?

Historical Views

- *The division between labor and capital remains stable over time*
  Keynes (1939) called this one of the most surprising facts
  Kaldor (1957) immortalizes it as a fact of economic growth

- Solow (1958) *disputed the labor share's status* as
  "one of the great constants of nature."

- *Recently Labor's share has trended downwards (apparently)*
  Elsby, Hobijin and Sahin (2013) document this decline for the US
  Karabarbounis and Neiman (2014b) describe a worldwide retreat of labor income

- *Top income shares fell in the first half of the 20th century*
  (Atkinson, Piketty and Saez, 2011)

Recent Debate

- *Karabarbounis and Neiman (2014b);*
  Connect the global fall in the labor share to a coinciding fall
  in relative prices of investment goods

- *Piketty (2014) and Piketty and Zucman (2014);*
  Rise in the quantity of capital from accumulation of savings has
  pushed up its share

- *Elsby et al. (2013);*
  Highlight the role of offshoring

- *Other emphasis on structural and institutional reforms*
  role of privatization (Azmat, Manning and Reenen, 2012)
  capital-skill complementarity (Arpaia, Perez and Pichelmann, 2009)

Contributions of this Paper

1. Describes that the recent behavior of income shares is widely misunderstood. *NCS for developed countries has followed a U-shaped trajectory.*

2. Disaggregates net capital income (outside housing sector) and *finds the U-shape is driven by the residual* (calls Piketty and Zucman (2014) into question)

3. Describes the theory of factor shares and the *role of elasticities of substitution*

Evidence on Factor Income Shares*

Income shares in the G-7;

- Data: Panel with National Accounts data, data for Panel is derived from Piketty and Zucman (2014) database

- Consider average capital shares for the private economy

- Assume NCS in non-corporate sector, non-housing sector equals the NCS in the corporate sector

- Estimate the following regression
  $s_{i,t} = \varphi_i + \alpha_t + \varepsilon_{i,t}$
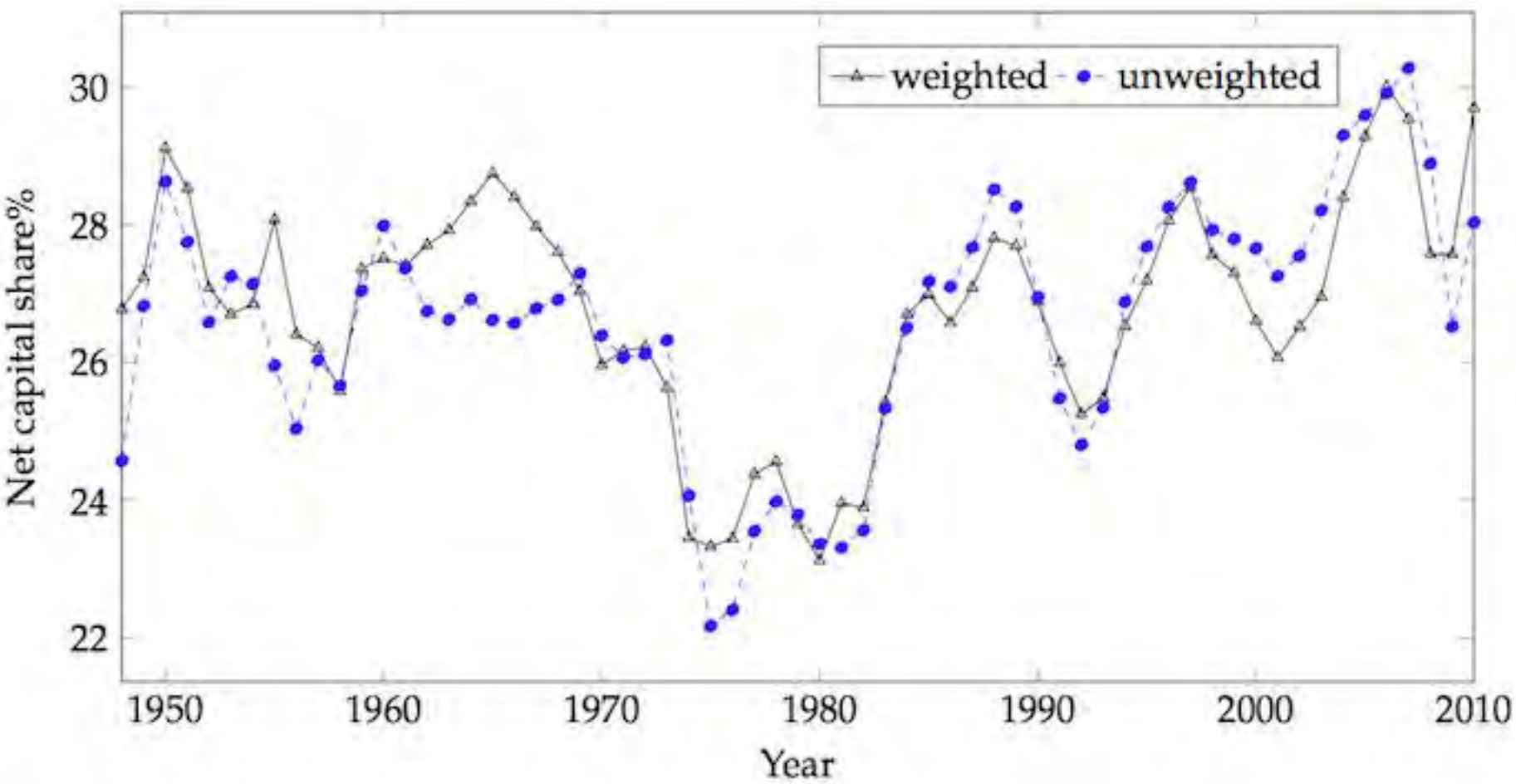
Rognlie, 2015: Net Capital Share

Figure 1: Average net capital share of private domestic value added for G7 countries.
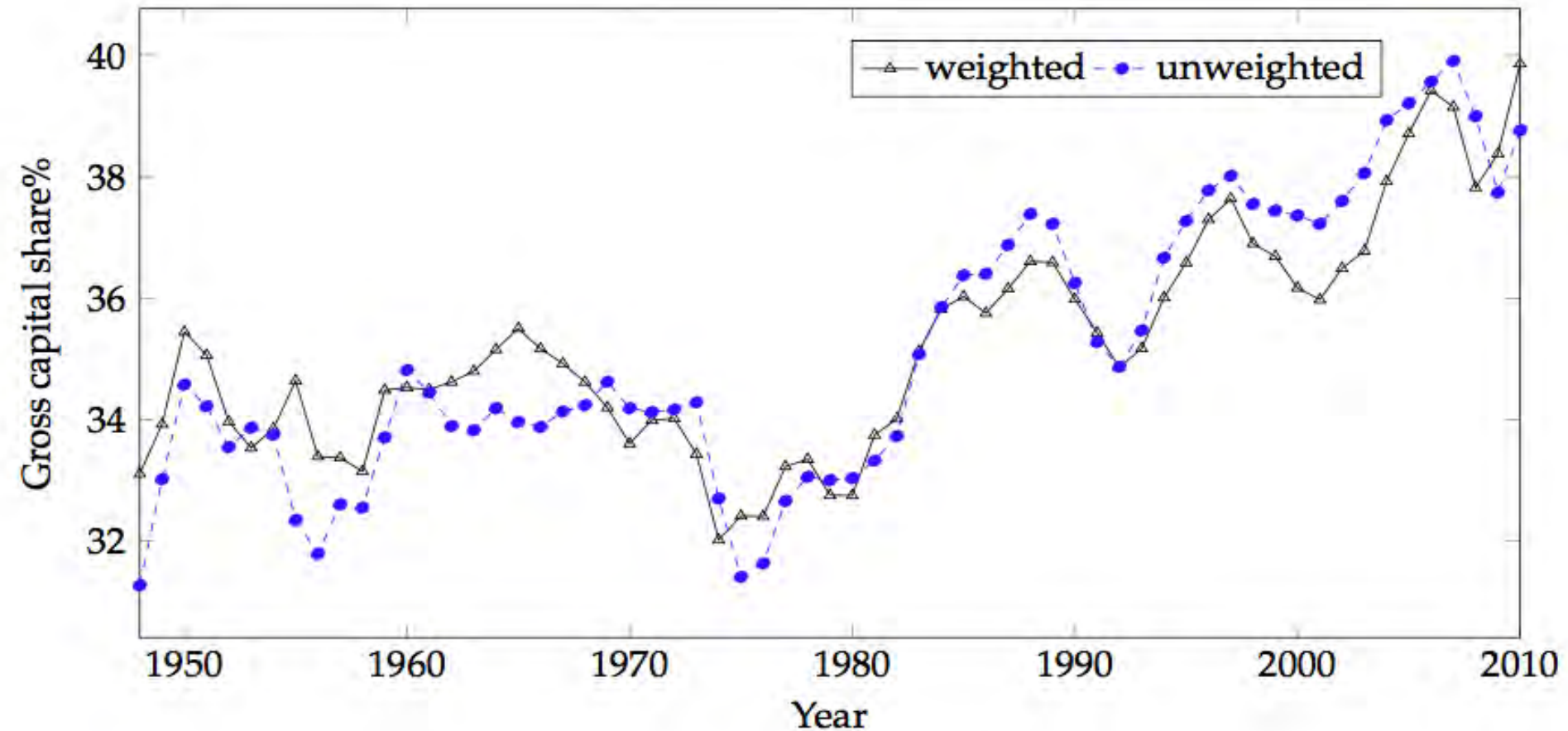
Rognlie, 2015: Gross Capital Share

Figure 2: Average gross capital share of private domestic value added for G7 countries.

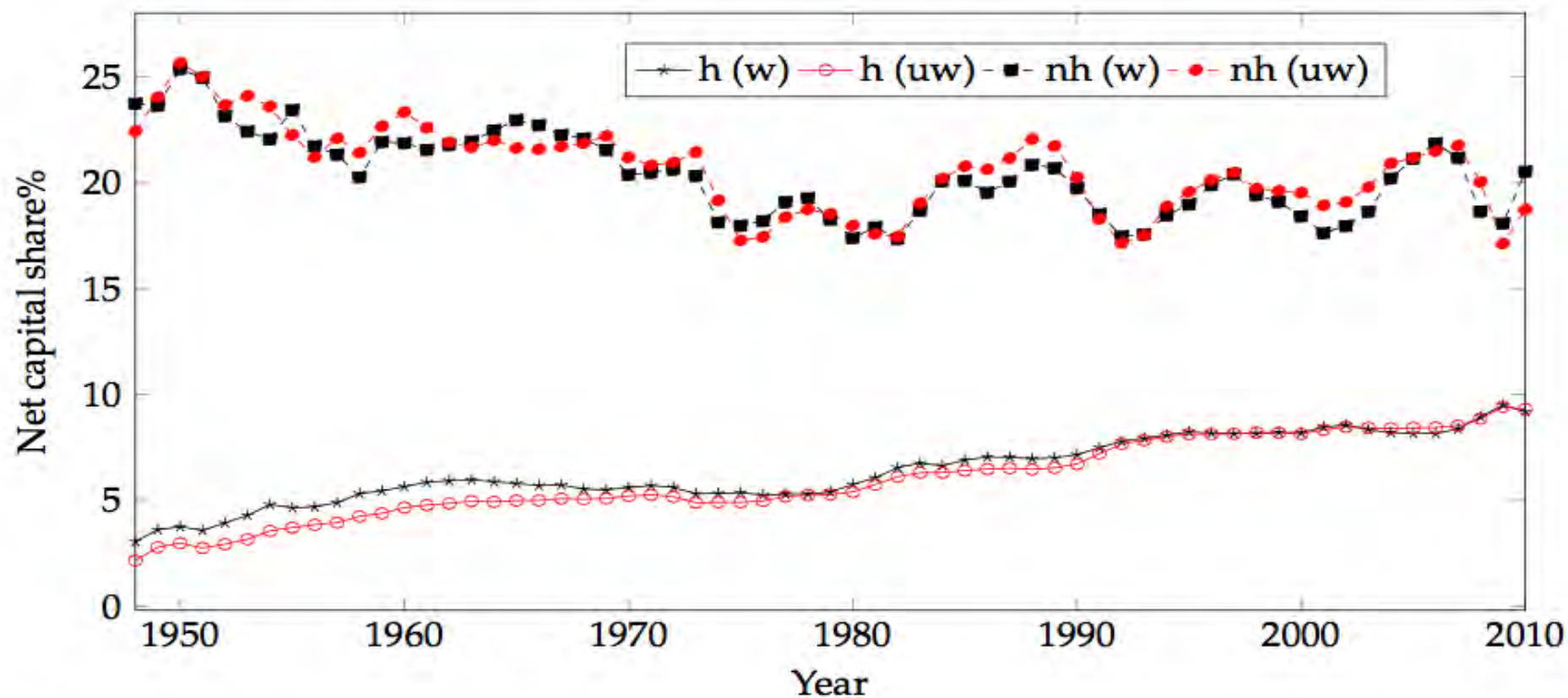# Net Capital Share: the role of Housing
(Rognlie, 2015)

Figure 3: Components of average net capital share of private domestic value added for G7 countries: housing (h) versus other (nh) sectors, weighted (w) and unweighted (uw).

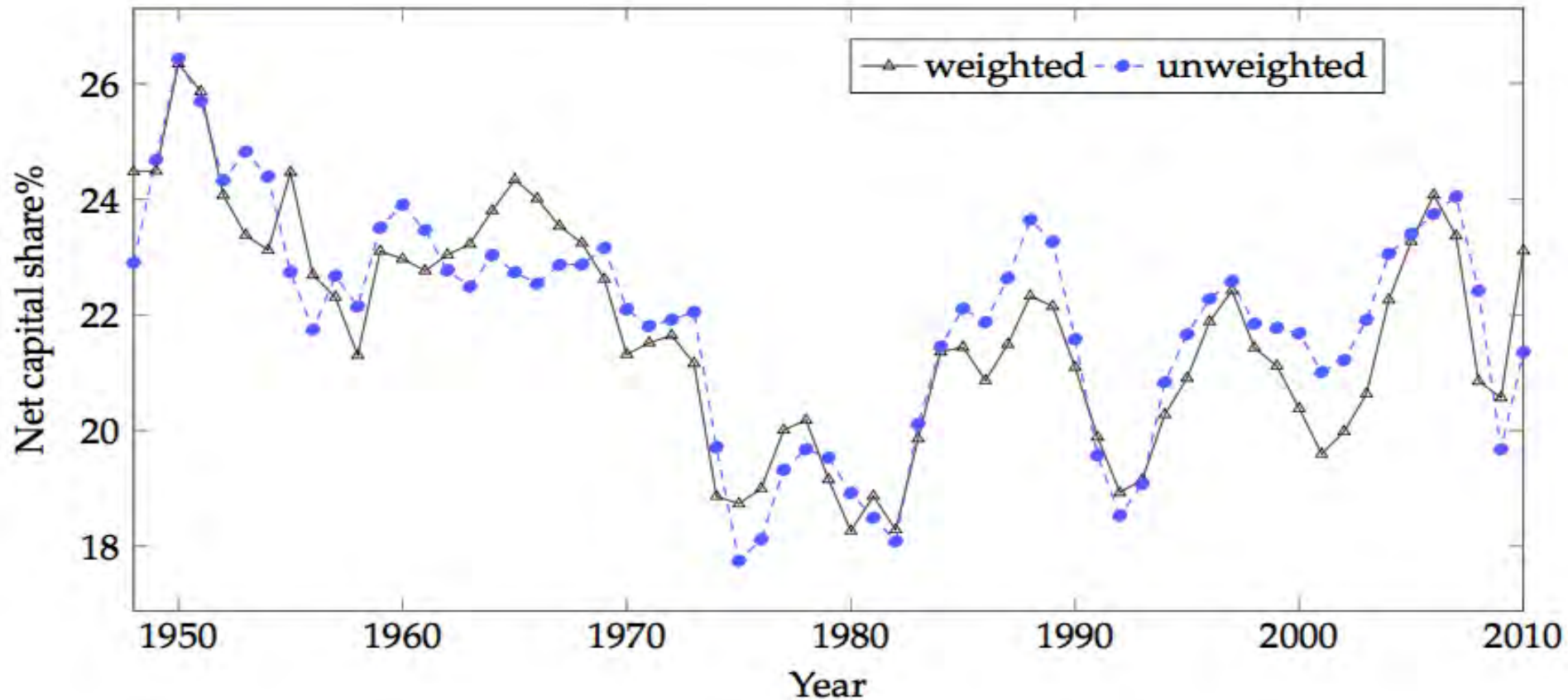# Net Capital Share: within the Corporate Sector (Rognlie, 2015)

Figure 4: Average net capital shares of corporate sector value added for G7 countries.

The "r > g" Debate?

- *Decomposition of the capital share theory*

   Divide net output into labor income and net capital income

   NCI is further divided into a share of profits and share of each capital

   Share of each type of capital depends on r

- *Decomposing net corporate share in the U.S (1948-2013)*

   Figure 5 and 6 (following in next slides)

   Assume r to be constant over the sample period (11%)*
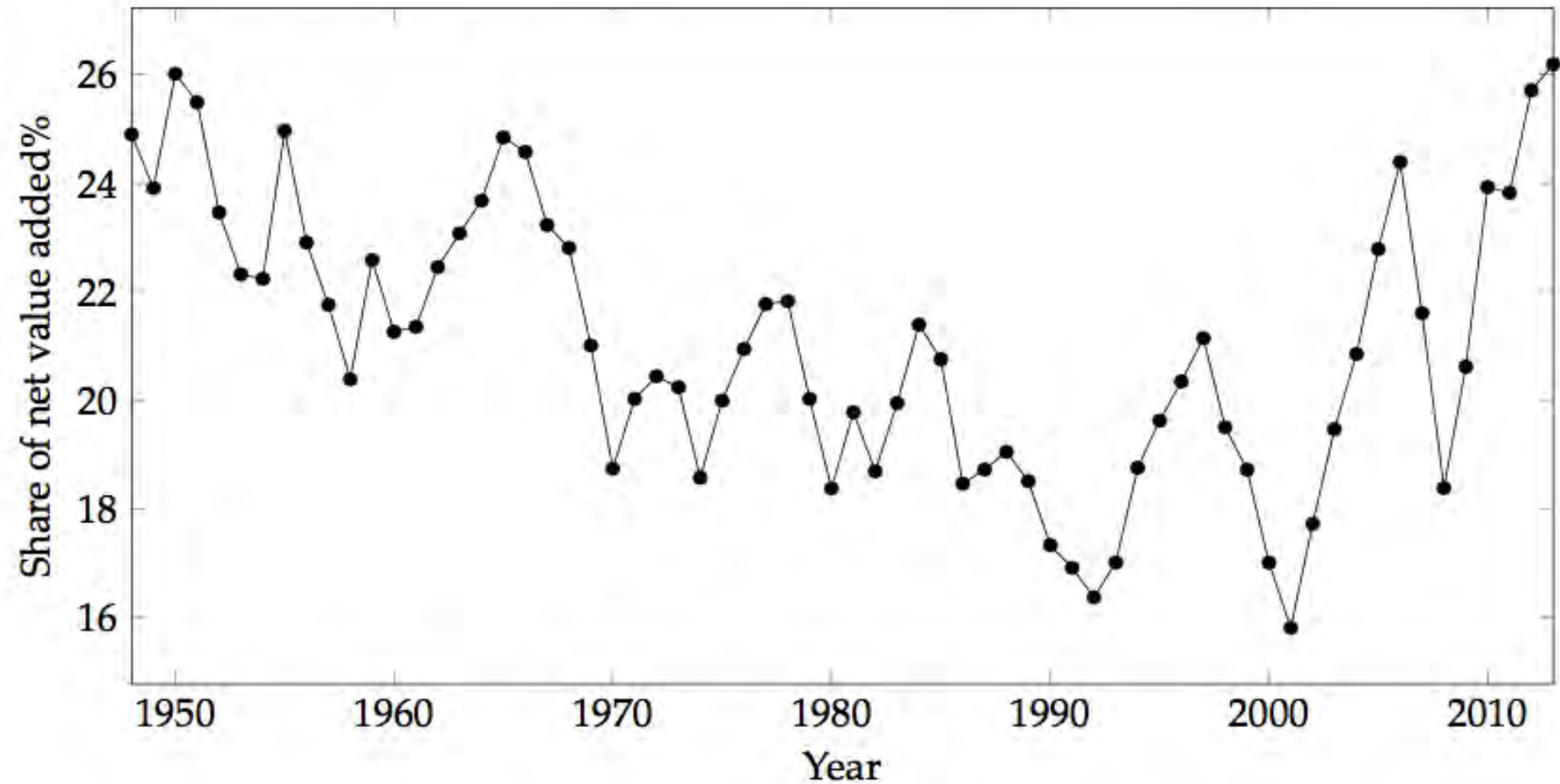
Corporate Sector: US
(Rognlie, 2015)

Figure 5: Net capital share of corporate sector value added in the US.
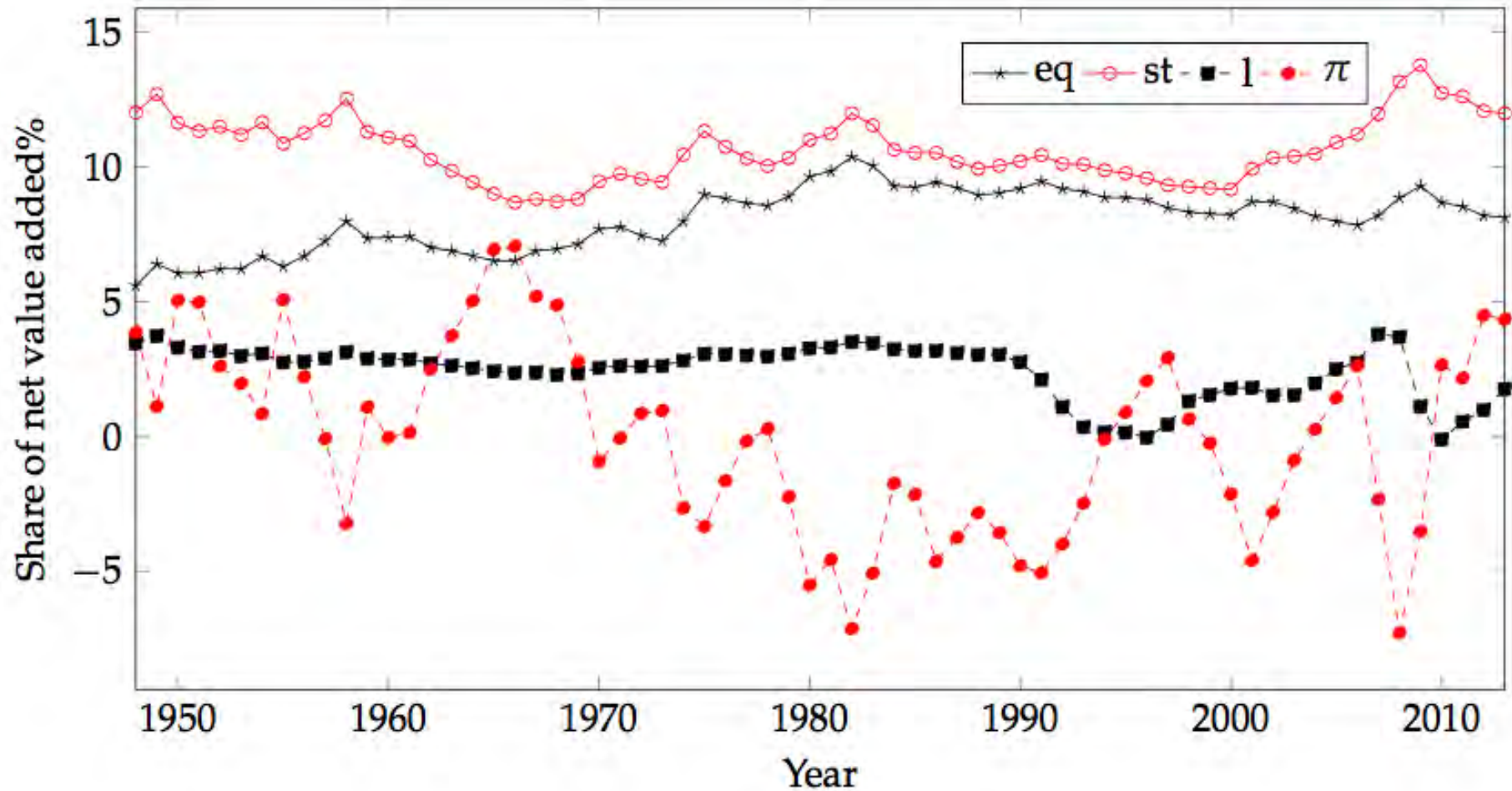
Corporate Sector: US
(Rognlie, 2015)

Figure 6: Decomposition of net capital share of corporate sector value added in the US: return on equipment, structures, land, and pure profits π.

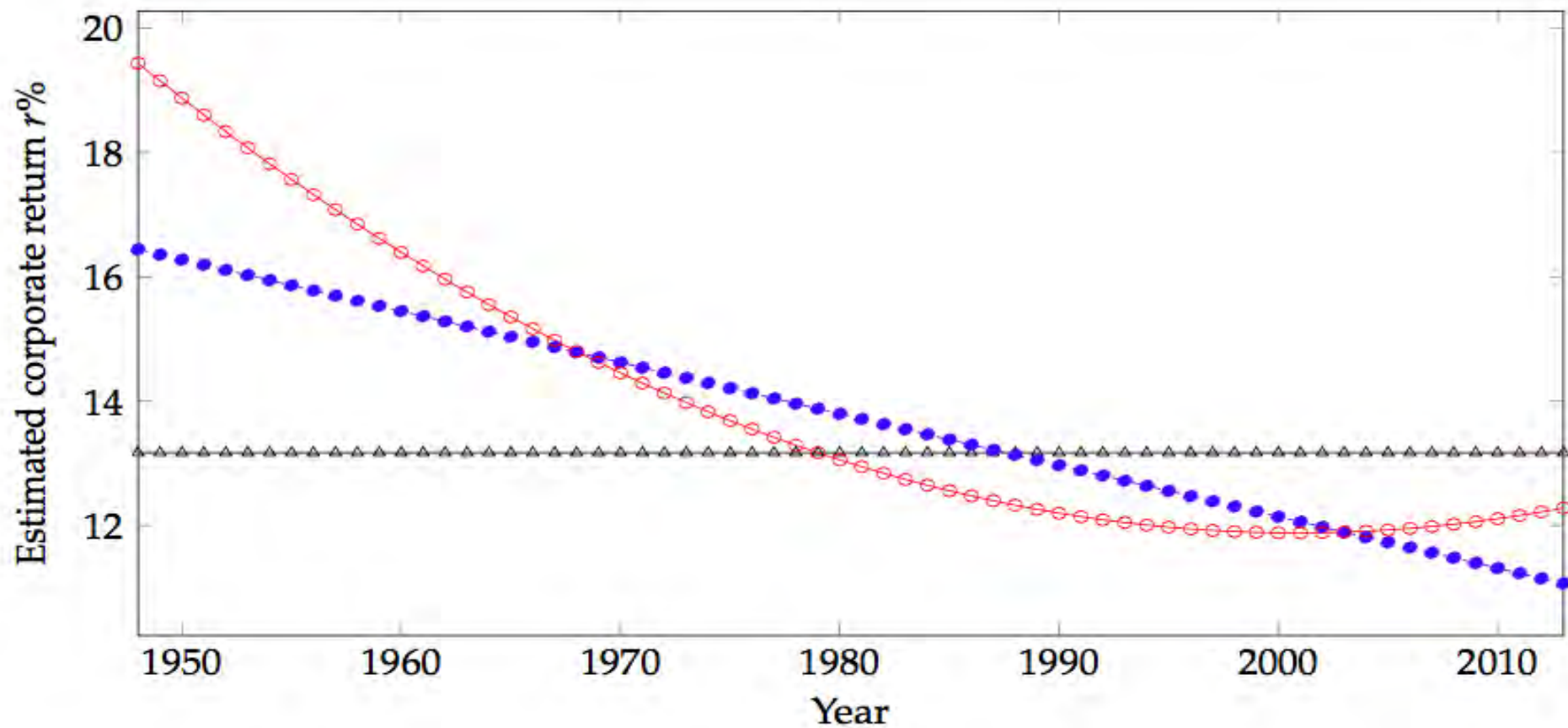# Constant, Linear, and Quadratic time Trends for r(t) (Rognlie, 2015)

Figure 7: Estimated constant, linear, and quadratic time trends for the corporate rate of return $r(t)$.

Conclusion

- NCS has fallen and then recovered in the postwar era

- There is a long term increase in net capital income from housing

- Contribution from rest of the economy is volatile

- Concerns about inequality should be shifted away from split between labor and capital

- Other aspects of distribution like within-labor distribution is important

- NCS has seen dramatic shifts up and down, the long term movement has been small (other then housing)

Does Rognlie refute Piketty?

- Rognlie, 2015 does not discuss wealth inequality and that capital share of national income has risen

- He finds that if accounted for depreciation, the capital share's increase is less dramatic

- This increase is driven by housing (but housing is not capital? Piketty uses "wealth")

- Does not support the r>g argument of Piketty. If this is false for non-housing then Rognlie challenges a striking claim of Piketty's!!

- Overall Piketty's claim of rising wealth inequality remains intact!

References

Bridgman, Benjamin, "Is Labor's Loss Capital's Gain? Gross versus Net Labor Shares," *Bureau of Economic Analysis (June 2014)*, 2014.

Karabarbounis, Loukas and Brent Neiman, "Capital Depreciation and Labor Shares Around the World: Measurement and Implications," Technical Report, National Bureau of Economic Research 2014.

Piketty, Thomas, *Capital in the Twenty-First Century*, Cambridge Massachusetts: Belknap Press, March 2014.

Piketty, Thomas and Gabriel Zucman, "Capital is back: Wealth-income ratios in rich countries, 1700- 2010," *The Quarterly Journal of Economics*, 2014, p. qju018.