Tax Subsidies and the Economic Impacts of Private Equity

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Disclaimer: All data work for this project involving confidential taxpayer information was done at IRS facilities, on IRS computers, and at no time was confidential taxpayer data ever outside of the IRS computing environment. The views expressed in these slides are those of the authors and do not necessarily represent the views of the IRS or the U.S. Department of the Treasury. All results have been reviewed to ensure that no confidential information is disclosed.

Motivation

- Tax Subsidies for Private Equity
  - Carried interest: share of investment profits paid to the investment manager
  - Taxed at long-term capital gains rate of 20%, not top individual rate of 37%
- Research questions:
  1. How large is the federal tax subsidy provided to private equity firms?
  2. What are the economic effects of private equity on firms and workers?
  3. Do these effects justify the existence of the carried interest subsidy?

Motivation

- Changing tax treatment of carried interest should affect tax revenue.
  $\Rightarrow$ **But by how much?**
- Estimates vary
  - \$18 billion (US Treasury 2015)
  - \$14 billion (CBO 2018)
  - \$12 billion (Peter G. Peterson Foundation 2023)
  - \$180 billion (Fleischer 2015)
    - Assumed behavioral responses key
- **Effects on workers are unclear.**
  - PE firms deliver substantial returns to investors
  - Changes may create value for shareholders by facilitating capital investment that raises productivity and complements workers
  - May create value by cutting wages/benefits or laying off workers.
  - Mixed results in literature (Davis et al. 2014; Davis et al. 2021)

This Paper

- Administrative tax data and PE deal information to study the effects of PE on:
  - Worker employment and wages
  - Firm survival, profits, investment, and capital structure
- Comprehensive picture of the economic impacts of private equity by comparing firms acquired by private equity funds to similar controls firms that are not acquired.
- Linking tax data to deal data provides outcomes and granularity not available in other administrative datasets, and the ability to track worker outcomes over time.

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Data

- Tax Data
  - 1120, 1120S, 1065 for firm assets, revenues, profits, costs
  - W2s link firms to workers, track employment and wages
  - Direct measurement of private equity profit distributions to investors using Schedule K-1s
  - Form 8594 asset acquisition statements to help identify PE transactions

- Pitchbook
  - Comprehensive data on PE deals to identify firms acquired by PE funds
  - Over 300,000 PE investments worldwide
  - >2x more deals than previous sources Comparison

Panel Construction: Tracking Worker Outcomes

- Fuzzy match Pitchbook to corporate tax forms on company name, zip code, address
- Link firms to workers in year before PE deal, follow workers over time
- Worker by year level panel: W2s 1999-2023, PE deals 2002-2020
- Focus on full time workers at substantial firms
  - $>$ 10 workers in year before PE acquisition
  - Wage $>$ 15,000 2017 USD in year before PE acquisition
  - Working at firm in 3 years before deal (similar results with shorter tenure restriction)

Empirical Strategy

- Matched differences in differences research design, consistent with approaches used by other researchers (e.g. Davis et al. 2014)
- Match firms acquired by PE to similar firms never acquired in year before PE deal
  - Match on industry, census region, decile of assets and average wages, number of employees
  - Match 88% of possible acquired firms
    - 10,400 treatment and control firms, 24 million worker year observations
  - Balanced firm and worker characteristics between acquired and matched control firms Table

Estimating the Effect of PE Acquisitions on Workers

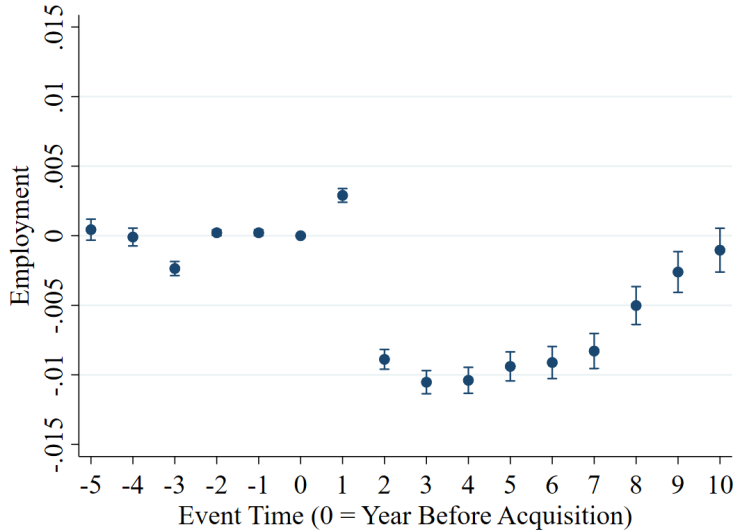
- Implement stacked estimator

$$Y_{it} = \delta_i + \gamma_t + \sum_{t=-5,\neq 0}^{10} \beta_t \times Acquired_i + \varepsilon_{it}$$

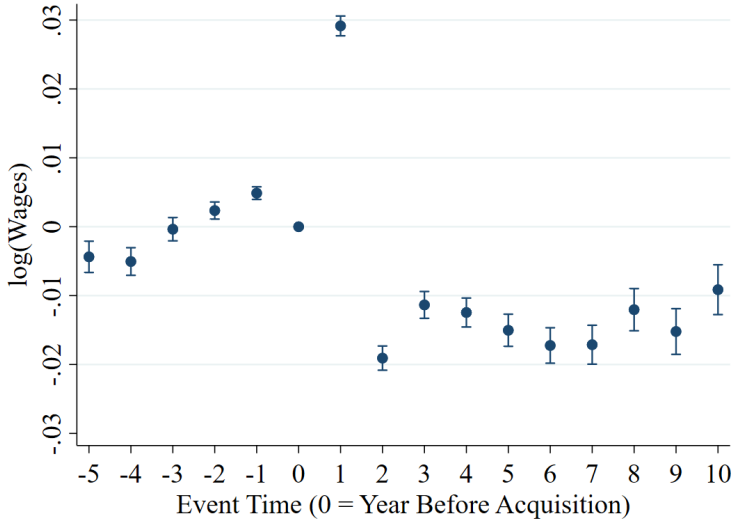
  - Time t relative to year of PE deal, $t = 0$ in year before deal
  - Outcome Y_{it} is employment indicator or $\log(\text{wage})$
  - $Acquired_i$ indicator for acquired firm
  - Event time γ_t and worker δ_i fixed effects

- β_t main coefficient of interest which allows us to examine effects of acquisition

PE Acquisitions Reduce Employment



PE Acquisitions Sharply Increase Then Reduce Wages



Heterogeneous Impacts of Acquisitions

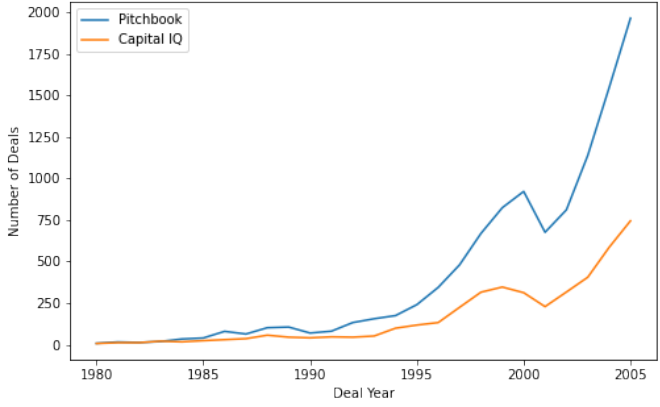
- Acquisition Years Employment Wages
  - Less negative or even positive employment effects during great recession
- Age Employment Wages
  - Largest employment and wage declines among oldest workers
- Wage Quintile Employment Wages
  - Wage spikes and declines largest in top quintile
  - Employment declines largest in top quintile, next largest in bottom quintile
- Gender Employment Wages
  - Slightly larger negative employment and wage impact for women

Concluding Remarks and Next Steps

- We study effects of PE on workers
  - Find employment declines after acquisitions
  - Find wages spike, then decline after acquisitions
  - Interesting heterogeneity to explore
- More ground to cover
  - Firm outcomes
  - Distributions to investors

Appendix

More Deals than Previous Sources

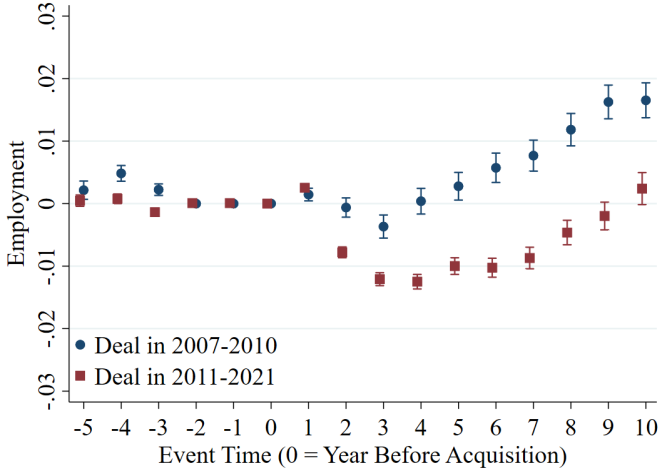


Data

Balance Between Acquired and Matched Control Firms

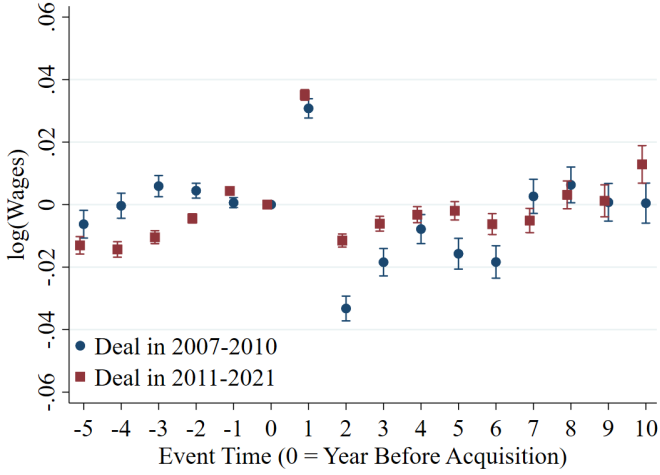
	Acquired	Matched Control
Assets (Millions USD)	64.8	68.0
Gross Receipts	66.4	59.6
Total Income	22.6	24.9
Total Deductions	20.6	22.1
Depreciation	0.9	1.1
P10 Wages	39,000	39,000
P50 Wages	72,000	69,000
P90 Wages	177,000	164,000
Wages	92,000	88,000
Workers	84.6	89.2
Obs	10,400	10,400

Employment Heterogeneity by Deal Year



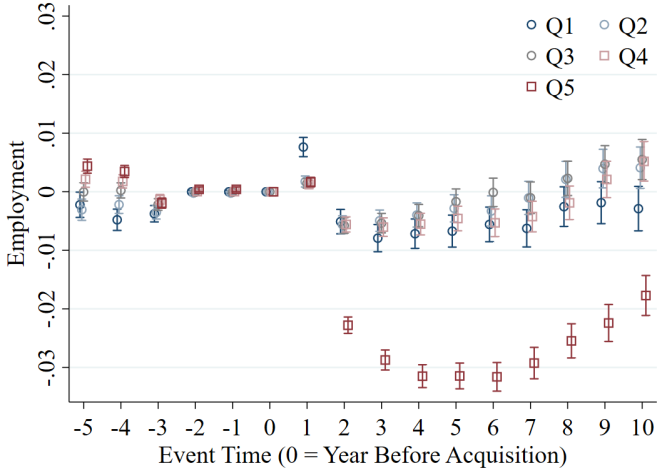
Heterogeneity

Wage Heterogeneity by Deal Year



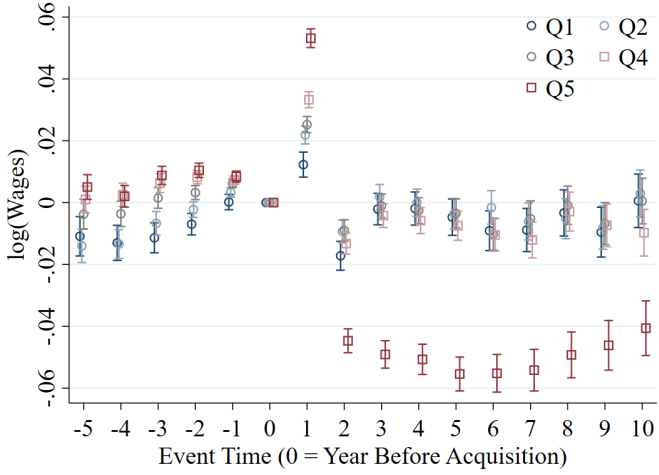
Heterogeneity

Employment Heterogeneity by Wage Quintile



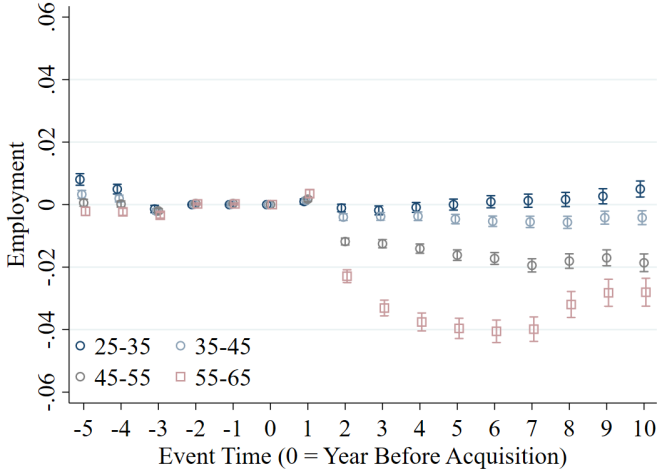
Heterogeneity

Wage Heterogeneity by Wage Quintile



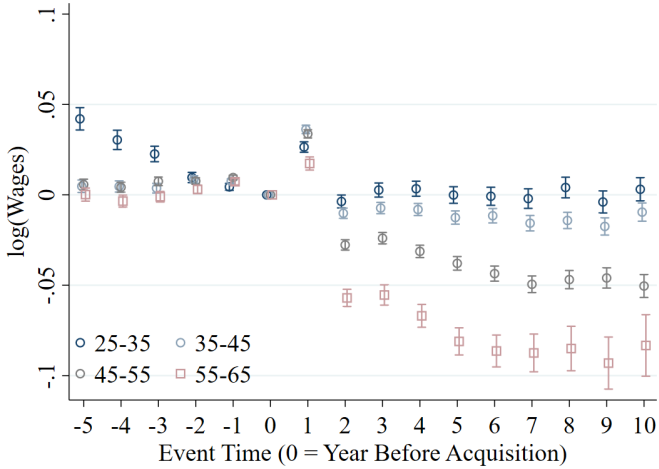
Heterogeneity

Employment Heterogeneity by Worker Age



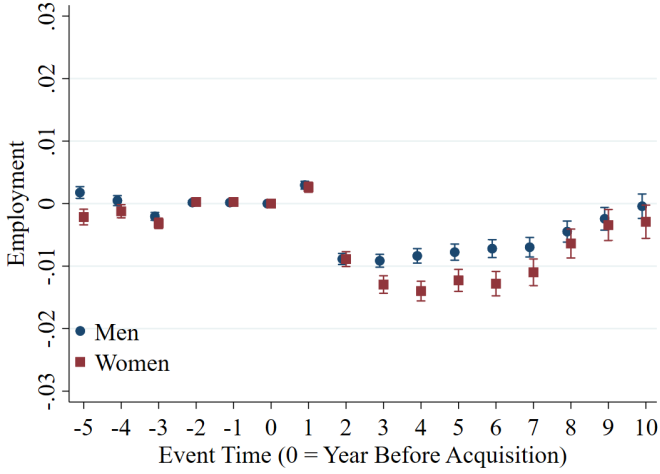
Heterogeneity

Wage Heterogeneity by Worker Age



Heterogeneity

Employment Heterogeneity by Worker Gender



Heterogeneity

Wage Heterogeneity by Worker Gender

