Curses or Blessings:
How Low Asset Mobility Helps Foreign Firms Gain Government Support

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The Two Credible Commitment Problems

- The credible commitment problem:
    - Host governments cannot promise to uphold *ex ante* deals after the investment is sunk.
    - The obsolescing bargain problem (Vernon 1971)
    - $\implies$ Immobile assets worsen government treatment (Kobrin 1987)

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- The inverse credible commitment problem:
  - Foreign firms' inability to commit to staying after receiving preferential treatment
  - Economic volaitlity
  - Opaque business decision-making processes
  - Host governments are concerned with wasting preferential policies on firms that cannot commit to staying
  - $\implies$ **MOBILE assets worsen government treatment**

The Two Credible Commitment Problems

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Government calculations:

- Maximizing tax revenue

- Foreign investors can credibly commit to staying

- Lower asset mobility $\implies$ worse policies

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- Better policies $\implies$ economic growth $\implies$ political survival

- Firms that are less likely to move $\implies$ more likely to deliver economic growth $\implies$ receive better policies

- Lower asset mobility $\implies$ **BETTER** policies

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- Better policies to keep investments

- Firms that still leave after receiving better policies $\implies$ wasting resources

- More effective at preventing immobile firms from leaving

- Lower asset mobility $\implies$ **BETTER** policies

The Two Credible Commitment Problems

Summary:

- Non-monotonic relations

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- Sufficient conditions

Hypotheses

H1: Asset mobility ↓ ⟹ Government treatment ↑

H2: Competition ↑ ⟹ Positive effects of low asset mobility ↑

H3: Time horizons ↑ ⟹ Positive effects of low asset mobility ↑

2008 Enterprise Income Tax Law of China

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- A Diff-in-Diff design

Data and Operationalization

Data Source: Chinese Industrial Enterprises Database (manufacturing firms with sales above USD \$700,000)

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- Dichotomize asset mobility into high and low
- Covariates: profit, debt, number of employees, revenue, main production cost, inventory, export, and lagged loss

Main Results

Figure: Main Results
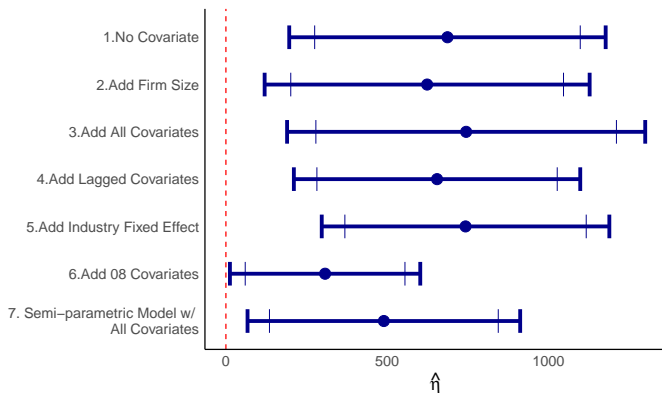
Takeaway: Higher asset mobility $\implies$ MORE taxes

Conclusions

- The inverse credible commitment problem is a prevalent and salient issue
- The relation between asset mobility and government treatment is not monotonic
- Low asset mobility empowers foreign investors in many realistic scenarios

Theoretical Predictions 1
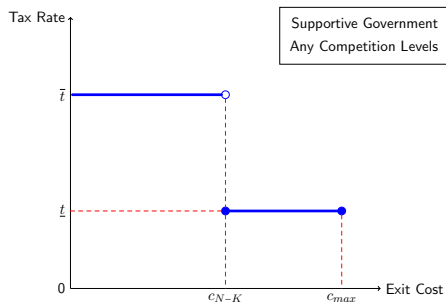
(a) A predatory government will offer only a few foreign firms with the highest asset mobility the low tax rate when the competition level is low

Theoretical Predictions 2
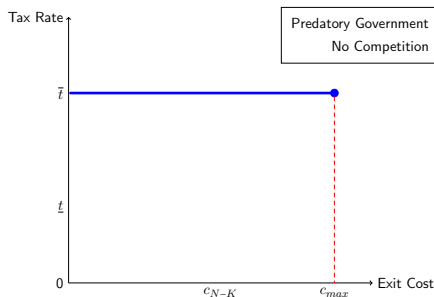
(a) A predatory government will offer all foreign firms the high tax rate when there is no competition
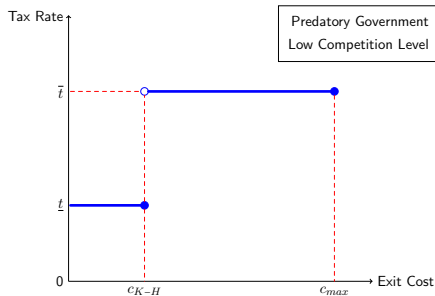
(b) A predatory government will offer only a few foreign firms with the highest asset mobility the low tax rate when the competition level is low

Theoretical Predictions 3
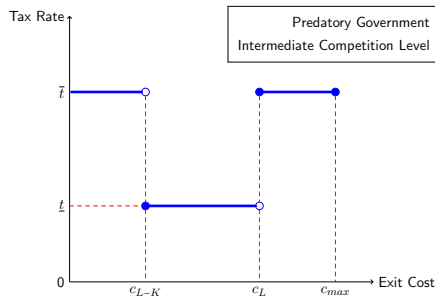
(a) A predatory government will offer foreign firms with medium asset mobility the low tax rate when the comption level is intermediate
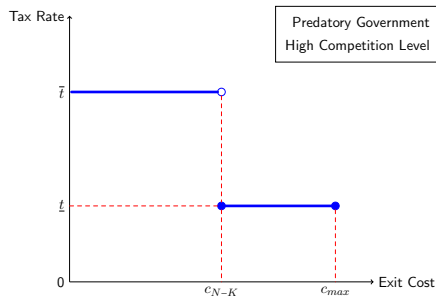
(b) A predatory government will offer foreign firms with the lowest asset mobility the low tax rate when the comption level is high

Identification

The Assumed Model:

$$\text{Tax}_{i,t} = \delta \cdot \text{Asset Mobility}_i + \eta \cdot \mathbb{1}\{t = 2008\} \cdot \text{Asset Mobility}_i$$
$$+ \beta \cdot X_{i,t} + \gamma \cdot Z_{i,t-1} + c_i + \alpha_t + \epsilon_{i,t}$$

Identification:

$$\Delta_t \text{Tax}_i = \boldsymbol{\eta} \cdot \mathbb{1}\{t = 2008\} \cdot \text{Asset Mobility}_i + \beta \cdot \Delta_t X_i + \gamma \cdot \Delta_{t-1} Z_i + \Delta_t \alpha + \epsilon_i$$

Prediction:

- $\eta > 0$: higher asset mobility firms pay more tax (my theory)
- $\eta < 0$: lower asset mobility firms pay more tax

Placebo Results

Figure: Placebo Results
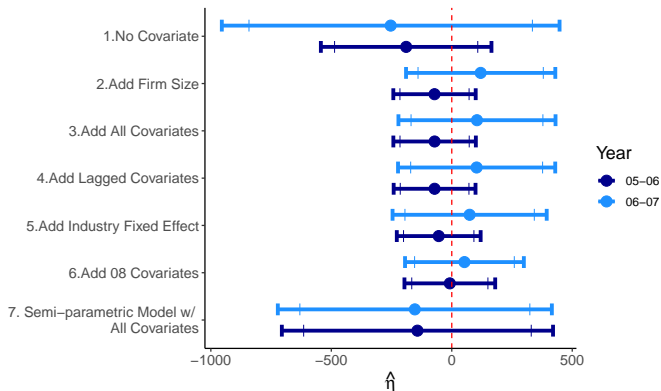
Takeaways: The main effect is not driven by time trends

Distribution of Effective Tax Rates

Figure: Distribution of Foreign Firm Effective Tax Rates in 2008
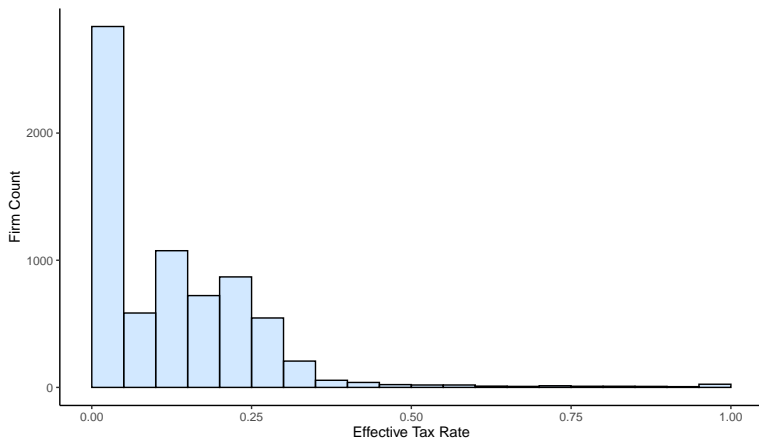
Heterogeneous Effects: Competition

H2: When intergovernmental competition for investments is more intense, foreign firms with lower asset mobility are more likely to receive better government treatment.

- Measuring competition intensity using within-province political competition in China
- Competition for higher political offices is closely related to local economic performance
- Within-province competition for foreign investments is closely related to global investment climate
- Intense political competition $\implies$ intense competition for investment
- Measuring within-province competition intensity: the number of local leaders eligible for provincial leadership positions (more eligible leaders $\implies$ more intense competition)
- Data source: Chinese Political Elite Database (Jiang 2018)
- Prediction: competition $\uparrow$ $\implies$ the positive effects of low asset mobility $\uparrow$

Heterogeneous Effects: Competition

competition ↑ ⟹ the positive effects of low asset mobility ↑

Figure: Heterogeneous Effects: Competition
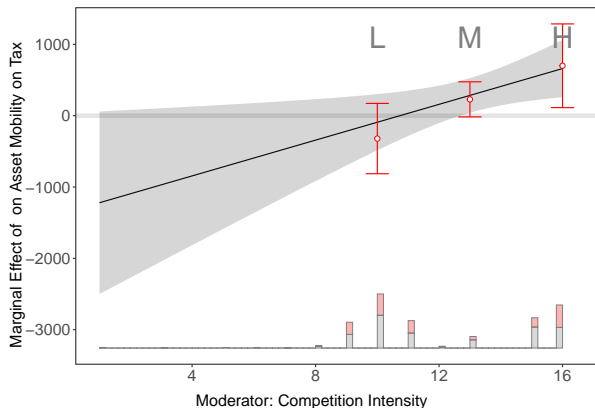
## Heterogeneous Effects: Time Horizons

H3: When government leaders have a longer time horizon, foreign firms with lower asset mobility are more likely to receive better government treatment.

- Measuring time horizons using term limits in the Chinese political system
- Each local leader can serve at most two five-year terms
- Time horizon = the number of years left in a five-year term
- Prediction: time horizons ↑ $\implies$ the positive effects of low asset mobility ↑

Heterogeneous Effects: Time Horizons

time horizons $\uparrow$ $\implies$ the positive effects of low asset mobility $\uparrow$

Figure: Heterogeneous Effects: Time Horizons
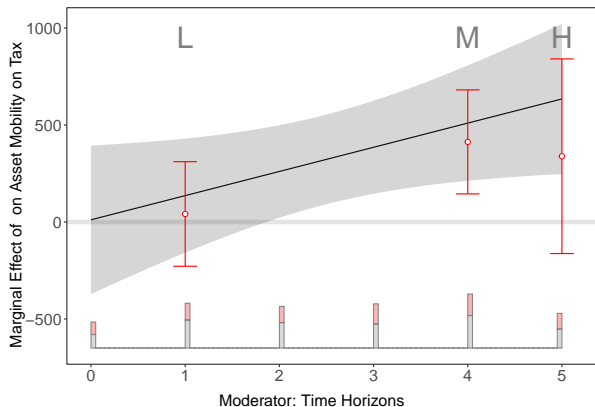
Confounder: Political Connection/Bribery

- Political Connection as a confounder
  - Connected firms are more likely to invest in fixed asset
  - Connected firms are more likely to pay less tax

- Since political connection and bribery are highly correlated in China, the positive effects of low asset mobility will be stronger when local leaders are corrupt if the effect can be explained by political connection/bribery

- Placebo test: compare local leaders who are arrested for corruption after 2008 with those who are not

Confounder: Political Connection/Bribery

If political connection is the cause, we will observe that local leaders corrupt $\implies$ the positive effect of low asset mobility ↑

Figure: Confounder: Political Connections/Bribery
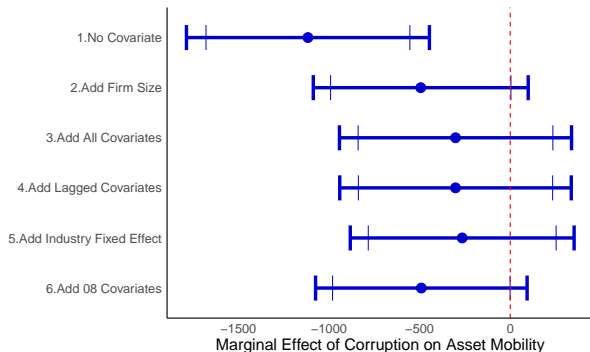
Confounder: 2008 Financial Crisis

- There were other significant events in 2008 such as the financial crisis
- Placebo: compare localities hit harder by the crisis with other localities
- I measure exposure to financial crisis using the city level export amount in 2007 (2007 export $\uparrow \implies$ hit harder by the crisis)

Confounder: 2008 Financial Crisis

If the financial crisis is the cause, we will observe that: city export amount
↑ $\implies$ the positive effect of low asset mobility ↑

Figure: Confounder: 2008 Financial Crisis
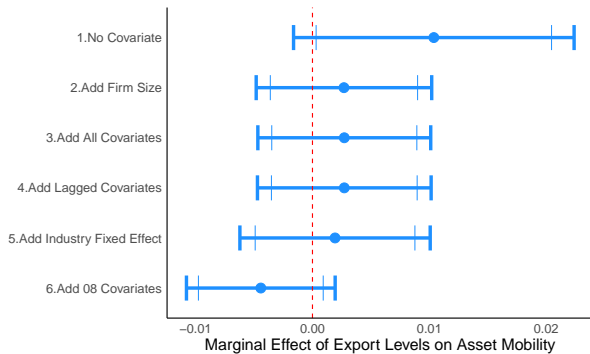
Random Cutoffs

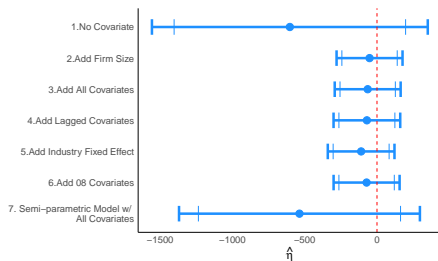Figure: Robustness Test: Randomly Cutoffs
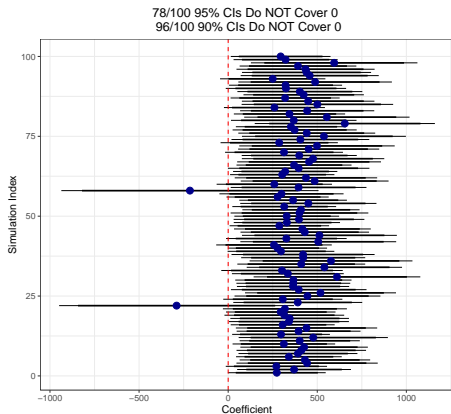
(a) Treatment Year (2007 - 2008)
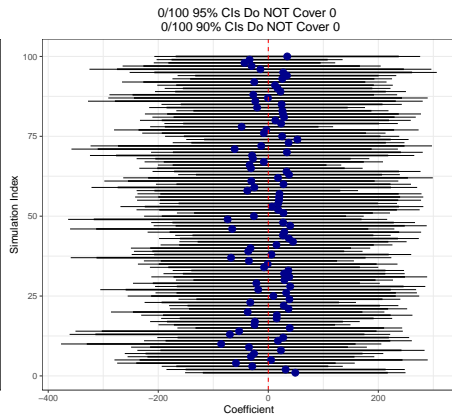
(b) Placebo Year (2006 - 2007)

2005 - 2008 Panel

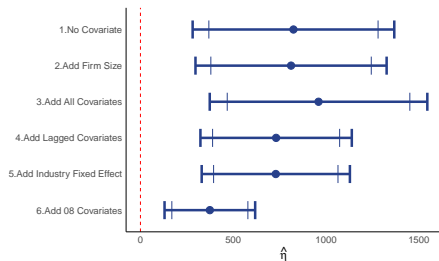Figure: Robustness Test: 2005 - 2008 Panel
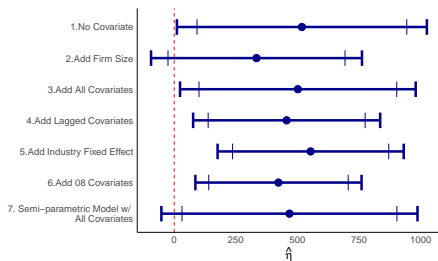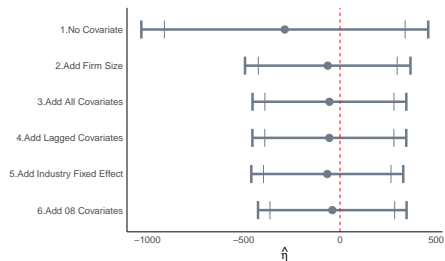

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CBPS Weighting

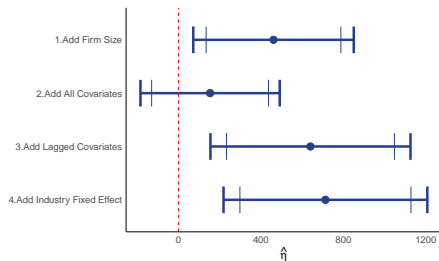Figure: Robustness Test: CBPS Weighting

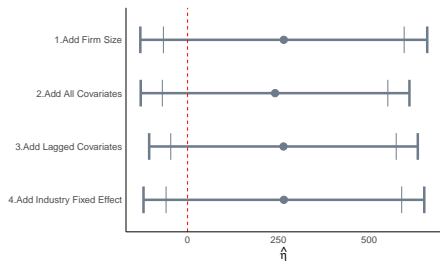(a) Treatment Year (2007 - 2008)

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Simple Regressions

Figure: Robustness Test: Simple Regressions

(a) 2008 Data

(b) 2007 Data