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

Haosen Ge
Princeton University

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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)
  - Immobile assets worsen government treatment (Kobrin 1987)
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  - Foreign firms’ inability to commit to staying after receiving preferential treatment
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- The inverse credible commitment problem:
  - Foreign firms’ inability to commit to staying after receiving preferential treatment
  - Economic volatility
  - Opaque business decision-making processes
  - Host governments are concerned with wasting preferential policies on firms that cannot commit to staying
  - $\Rightarrow$ MOBILE assets worsen government treatment
The Two Credible Commitment Problems

Credible Commitment Problem
Inverse Credible Commitment Problem

Government calculations:
- Maximizing tax revenue
- Foreign investors can credibly commit to staying
- Lower asset mobility $\implies$ worse policies
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Government calculations:

- Maximizing political survival
- Better policies $\implies$ lower propensity to leave
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- Maximizing political survival
- Better policies $\implies$ lower propensity to leave
- 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
### The Two Credible Commitment Problems

**Credible Commitment Problem**

In this problem, the government aims to maximize tax revenue. However, this can lead to worse policies as foreign investors may not be convinced to stay. Additionally, lower asset mobility can result in worse policies.

**Inverse Credible Commitment Problem**

In this problem, the government prioritizes better policies. This results in a lower propensity for foreign investors to leave. However, intense competition for investments and firms that leave despite better policies can lead to wasteful resources and less effective policies at preventing immobile firms from leaving. Lower asset mobility leads to better policies.

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### The Two Credible Commitment Problems

#### Credible Commitment Problem
- **Inverse Credible Commitment Problem**

**Government calculations:**
- Maximizing tax revenue
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#### Inverse Credible Commitment Problem
- **Credible Commitment Problem**

**Government calculations:**
- Maximizing tax revenue
- Better policies $\implies$ lower propensity to leave
- Intense competition for investments
- 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
The Two Credible Commitment Problems

Summary:

- Non-monotonic relations
- Positive
The Two Credible Commitment Problems

Summary:

- Non-monotonic relations
- Positive
- Negative
The Two Credible Commitment Problems

Summary:

- Non-monotonic relations
- Positive
- Negative
- U-shaped
The Two Credible Commitment Problems

Summary:

- Non-monotonic relations
- Positive
- Negative
- U-shaped
- Sufficient conditions
Hypotheses

**H1:** Asset mobility $\downarrow \implies$ Government treatment $\uparrow$

**H2:** Competition $\uparrow \implies$ Positive effects of low asset mobility $\uparrow$

**H3:** Time horizons $\uparrow \implies$ Positive effects of low asset mobility $\uparrow$
2008 Enterprise Income Tax Law of China

- The Chinese government is powerful and unconstrained by an independent judiciary

- The 2008 law illegalizes FDI-exclusive incentives

- Ambiguity of the implementation rules \( \Rightarrow \) local governments have more power

- My interviews confirm the existence of contract breach

- Lower expropriation costs \( \Rightarrow \) which firms will get better treatment, mobile or immobile firms?

- A Diff-in-Diff design
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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)

Operationalization:

- Sample: Wholly Foreign-owned Enterprises (N = 9,940)
- DV: The Amount of Income Tax
- Asset Mobility:
  \[ 1 - \frac{\text{Fixed Asset}_{i,t}}{\text{Total Asset}_{i,t}} \]
  
  Dichotomize asset mobility into high and low

- Covariates: profit, debt, number of employees, revenue, main production cost, inventory, export, and lagged loss
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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.
(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.
(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 competition level is intermediate.

(b) A predatory government will offer foreign firms with the lowest asset mobility the low tax rate when the competition level is high.
Identification

The Assumed Model:

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

Identification:

\[ \Delta_t \text{Tax}_i = \eta \cdot 1 \{t = 2008\} \cdot \text{Asset Mobility}_i + \beta \cdot \Delta_t X_{i,t} + \gamma \cdot \Delta_{t-1} Z_{i,t} + \Delta_t \alpha + \epsilon_i \]

Prediction:

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

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 ↑ $\Rightarrow$ 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 $\uparrow \implies$ the positive effects of low asset mobility $\uparrow$
Heterogeneous Effects: Time Horizons

time horizons ↑ \rightarrow \text{the positive effects of low asset mobility ↑}

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 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 ↑ → hit harder by the crisis).
Confounding: 2008 Financial Crisis

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

**Figure:** Confounding: 2008 Financial Crisis

1. No Covariate
2. Add Firm Size
3. Add All Covariates
4. Add Lagged Covariates
5. Add Industry Fixed Effect
6. Add 08 Covariates

Marginal Effect of Export Levels on Asset Mobility

Haosen Ge (Princeton University)
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

1. No Covariate
2. Add Firm Size
3. Add All Covariates
4. Add Lagged Covariates
5. Add Industry Fixed Effect
6. Add 08 Covariates
7. Semi-parametric Model w/ All Covariates

(a) Treatment Year (2007 - 2008)

(b) Placebo Year (2006 - 2007)
Figure: Robustness Test: CBPS Weighting

(a) Treatment Year (2007 - 2008)

(b) Placebo Year (2006 - 2007)
Simple Regressions

**Figure:** Robustness Test: Simple Regressions

1. Add Firm Size
2. Add All Covariates
3. Add Lagged Covariates
4. Add Industry Fixed Effect

(a) 2008 Data

(b) 2007 Data