Discussion of

China's Global Ownership

Bai, Ke, Laeven, and Ru

Vidhan Goyal

HKUST and ABFER

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China's Global Ownership

The paper asks three questions

1. Where is Chinese ownership actually located?
2. What kinds of firms do Chinese investors buy?
3. What changes after acquisition?

What drives Chinese overseas investment?

Normal multinational investment?

or

A strategy to gain technology and influence?

Data and Empirical Design

Data

- Orbis ownership and financial data
- 161,773 firms in 159 countries
- 2012–2021
- Ownership traced through offshore entities
- Patent data: PATSTAT
- Supply-chain data: FactSet Revere

What the paper does

- Maps China's global ownership footprint
- Studies effects on R&D, patents, profitability, employment, and supply chains
- Compare China with U.S., Japan, and India
- Use MIC2025 to study changes after 2015

The paper combines ownership measurement, international descriptive evidence, and firm-level outcomes in one framework.

Main Findings

Chinese investment

- Grows rapidly
- Concentrates in strategic sectors
- Often routed through offshore entities

After acquisition

- R&D and investment increase
- Patent growth changes little
- Profitability declines
- Supply-chain links increase

Industry effects

- Other firms reduce R&D
- Total industry innovation changes little

Authors' interpretation: China, especially SOEs, may accept lower short-run profits to gain technology and strategic influence.

What the Paper Does Well

1. Ownership data

- Traces ownership through offshore entities
- Identifies indirect Chinese ownership
- New map of China's global ownership footprint

2. Global evidence

- 161,000+ firms
- 159 countries
- 2012–2021
- Documents sector patterns, SOE vs. private ownership, and offshore routing

3. Big-picture questions

- Connects ownership, industrial policy, and innovation
- Offers an interpretation of China's overseas investment strategy

The ownership dataset is valuable even beyond the paper's causal claims.

Why the Paper Matters

- China's overseas investment matters for: industrial policy, national-security, and technology competition.
- Standard FDI data do not measure ultimate ownership well.
- The paper connects ownership, investment, and innovation.
- The comparison with the U.S., Japan, and India asks: Is China large, or fundamentally different?

The paper asks important questions using unusually ambitious data.

Comment #1: Causal Interpretation Is Stronger than the Design Supports

Baseline Empirical Strategy:

$$Y_{it} = \beta \, \text{Chinese Ownership}_{it} + X_{it}'\gamma + \alpha_i + \alpha_t + \varepsilon_{it}$$

How the paper describes the design:

"Akin to a propensity-score matched DiD." The paper interprets the variation as comparing firms before and after acquisition relative to never-acquired firms.

What the paper estimates:

- Static firm fixed-effects panel regressions
- Chinese ownership enters as a treatment indicator
- The specification is not implemented as a standard event-study DiD.

Why Acquisition Timing May Still Be Endogenous

Key identifying assumption

Acquisition timing is unrelated to future firm outcomes.

Concern

Chinese investors do not acquire firms randomly.

Section 2 and Table 2 already show that Chinese investors target systematically different firms and sectors.

Technology	Profitability	Supply chains
Firms already increasing R&D.	Firms already experiencing declining profitability.	Firms already changing suppliers and production links.

These pre-existing trends could generate post-acquisition changes **even absent Chinese ownership itself.**

Need Dynamic Treatment Evidence

The paper would benefit from:

- Formal matching
- Balancing evidence
- Event-time specification
- Explicit pre-trend analysis around acquisition timing

Why this matters

Without dynamic treatment evidence, it is difficult to separate:

- acquisition effects,
- from pre-existing firm trends.

Lead-lag estimates around first acquisition would substantially strengthen the causal interpretation.

Additional Specification Concerns

1. Some controls may themselves be outcomes

The regressions control for variables likely affected by acquisition:

- assets,
- fixed assets,
- employment,
- sales,
- ROA,
- cash flow.

Conditioning on post-treatment outcomes may distort estimated ownership effects.

2. Supply-chain measures may reflect coverage changes

FactSet Revere covers only about 10% of firm-years. Acquired firms may become more visible in the database after acquisition.

MIC2025: An Improvement, But Not a Clean Experiment

Design

- MIC2025-targeted industries after 2015
- Outcomes: ownership, R&D, profitability, and supply chains

Main concern

These industries are exactly where:

- technology competition intensified,
- digitalization accelerated,
- geopolitical tensions increased,
- industrial policy expanded globally.

Concern: differential post-2015 trends in the treated industries.

MIC2025: The Ownership Channel Appears Too Small

Key magnitudes from Table 8

- MIC2025 increases Chinese ownership by only 0.003.
- MIC2025 increases R&D by 0.036.

If the entire R&D effect came through ownership: Implied IV estimate would be $0.036/0.003 = 12$.

Implies an implausibly large acquisition effect.

Interpretation

The MIC2025 specification likely captures broader industry shocks, not only the ownership channel.

Examples: technology competition, industrial policy, geopolitical realignment, and post-2015 restructuring.

How the Paper Could Strengthen the Causal Interpretation

Better timing evidence

- Event studies around first acquisition
- Tests for pre-trends
- Separate short-run and long-run effects
- Show whether outcomes change sharply after acquisition

Better comparison groups

- Implement formal matching procedures
- Match on size, profitability, R&D, industry, and pre-trends
- Focus on first acquisitions or large ownership changes

Interpret MIC2025 primarily as sector-level reduced-form evidence, rather than as clean identification of the ownership channel.

Comment #2: The R&D Specification May Be Problematic

Baseline approach

- Missing R&D is set equal to zero.
- A `Blank_R&D` indicator enters on the right-hand side.

This differs from the standard Koh and Reeb setting because:

- R&D is the outcome,
- not a control variable.

Mechanical implication:

- all non-reporters are assigned the same value,
- which may mechanically shrink the estimated effects.

Consistent with this concern:

Table B1 coefficients $>$ Table 4 coefficients

Why This Matters for the Main Conclusions

The paper emphasizes heterogeneity

- SOE vs. private ownership
- Developed vs. emerging economies
- Ownership vs. control

Missing R&D is unlikely to be random. For example,

- emerging-market firms may report less often,
- reporting standards may differ across ownership structures,
- acquisition itself may change disclosure behavior.

Implication

Some heterogeneity patterns may reflect reporting intensity, not innovation behavior.

Table B1 may provide a cleaner estimate of innovation effects.

Comment #3: What Does the Ownership Measure Capture?

Core issue:

The paper moves between:

1. Exposure to Chinese capital
2. Minority influence
3. Operational control

The ownership measure clearly captures (1), partially captures (2), but is often interpreted as (3).

Ownership rule

A firm is classified as Chinese-owned once a 10% ownership threshold is crossed.

Rio Tinto is classified as Chinese-controlled based on a 14% indirect stake linked to Chinalco. Strategic influence may be plausible. Full operational control is much less obvious.

Issue: Full-Asset Assignment

Aggregation rule

Once the ownership threshold is crossed, the paper assigns 100% of the firm's assets to China.

This creates a disconnect between:

- ownership share,
- and attributed economic exposure.

Economically, the measure is closer to:

"firms with meaningful Chinese ownership exposure"

than to:

"firms operationally controlled by China."

This distinction matters when the paper:

- ranks countries by Chinese-controlled assets,
- compares China to the U.S.,
- or discusses China's global ownership footprint.

How the Ownership Analysis Could Be Strengthened

Clarify the measure

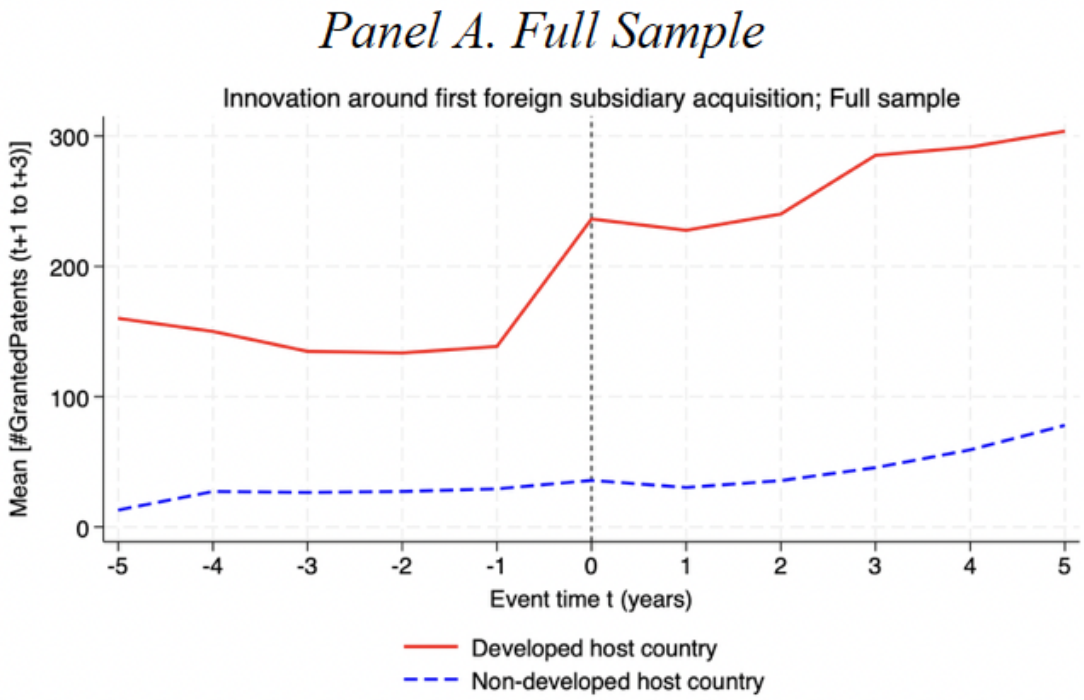
- Distinguish:
  - ownership exposure
  - minority influence
  - operational control
- Clarify what the ownership measure is intended to capture.
- Use "control" more narrowly.

Additional robustness

- Report results under alternative thresholds:
  - 10%
  - 25%
  - majority-control definitions
- Compare threshold-based and ownership-weighted measures.

The ownership data are valuable. The interpretation should match what the measure captures.

Comment #4: Spillback or Selection?



- Firms acquiring developed-country targets already patent much more before acquisition.
- Difficult to separate spillback effects (strategic home-country harvesting) from selection into developed-country acquisitions.

Bottom Line

- Important and timely question
- Valuable new ownership data
- Rich evidence on China's global investment patterns
- The ownership data construction is likely to remain useful well beyond this paper
- The main opportunity is to strengthen:
  - causal identification,
  - ownership interpretation,
  - and innovation measurement.

The paper already makes an important contribution. Stronger identification would make the conclusions substantially more convincing.