

# China's Global Ownership\*

Jennie Bai, Yaojun Ke, Luc Laeven, Hong Ru

November 2025

## Abstract

We study the global footprint and real effects of Chinese overseas investment by assembling a comprehensive micro-level dataset of China's ownership in 161,773 firms across 159 countries (2012–2021). Tracing multi-layered ownership chains through tax havens to ultimate owners, we show that China emerges as the fastest-growing outward investor, with foreign corporate control expanding at roughly 20% per year to just under 3% of global corporate assets, still below the United States in overall scale. Chinese investors—especially SOEs—target R&D-intensive, resource-rich, and supply-chain-connected firms. After acquisition, targets increase capital stock by 7.2% and R&D spending by 6.8% relative to non-target peers, but these inputs do not translate into higher patent output and are accompanied by lower profitability. Greater Chinese presence in a country–industry crowds out R&D at non-target firms, yet industry-level R&D, patenting, and performance remain broadly unchanged. Evidence on Chinese parents' own patenting suggests that part of the innovation impact instead materializes at home. Compared with U.S., Japanese, and Indian overseas investment, China appears as a distinctively state-driven model that uses overseas control to build technological capacity while accepting weaker near-term performance.

*Keywords:* China, overseas investment, state-owned enterprises, innovation, ultimate ownership

*JEL Classification:* G30, G32, O3, F3

---

\* Jennie Bai, Georgetown University and NBER, 3700 O St., Washington DC, 20057, USA (email: [Jennie.Bai@georgetown.edu](mailto:Jennie.Bai@georgetown.edu)); Luc Laeven, European Central Bank, Tilburg university and CEPR, Sonnemannstrasse 20, 60314 Frankfurt am Main, Germany (email: [luc.laeven@ecb.europa.eu](mailto:luc.laeven@ecb.europa.eu)); Yaojun Ke, Nanyang Technological University, 50 Nanyang Avenue, Singapore, 639798 (email: [yaojun001@e.ntu.edu.sg](mailto:yaojun001@e.ntu.edu.sg)); Hong Ru, Nanyang Technological University, S3-B1A-07, 50 Nanyang Avenue, Singapore, 639798 (email: [hongrucn@icloud.com](mailto:hongrucn@icloud.com)). We appreciate comments from seminar participants from MIT, London Business School, University of Massachusetts Amherst, Federal Reserve Bank of New York, IMF, University of Melbourne, and Georgetown University. All views expressed are our own and not those of the ECB or the Eurosystem.

# China's Global Ownership

## Abstract

We study the global footprint and real effects of Chinese overseas investment by assembling a comprehensive micro-level dataset of China's ownership in 161,773 firms across 159 countries (2012–2021). Tracing multi-layered ownership chains through tax havens to ultimate owners, we show that China emerges as the fastest-growing outward investor, with foreign corporate control expanding at roughly 20% per year to just under 3% of global corporate assets, still below the United States in overall scale. Chinese investors—especially SOEs—target R&D-intensive, resource-rich, and supply-chain-connected firms. After acquisition, targets increase capital stock by 7.2% and R&D spending by 6.8% relative to non-target peers, but these inputs do not translate into higher patent output and are accompanied by lower profitability. Greater Chinese presence in a country–industry crowds out R&D at non-target firms, yet industry-level R&D, patenting, and performance remain broadly unchanged. Evidence on Chinese parents' own patenting suggests that part of the innovation impact instead materializes at home. Compared with U.S., Japanese, and Indian overseas investment, China appears as a distinctively state-driven model that uses overseas control to build technological capacity while accepting weaker near-term performance.

## Introduction

Over the past decade, China has experienced remarkable economic growth and has emerged as one of the world's largest outward investors. According to the American Enterprise Institute, China's global investment stock rose from \$317 billion in 2009 to over \$2.7 trillion by the end of 2021,<sup>2</sup> reflecting a surge of cross-border mergers and acquisitions, joint ventures, and greenfield projects involving Chinese firms. Many of these investments are in sectors that host countries view as strategic, such as advanced manufacturing, information and communication technologies, natural resources, and a substantial fraction are undertaken by Chinese state-owned enterprises (SOEs). These developments have prompted intensified policy debate and led many advanced economies to tighten investment screening and impose new restrictions on Chinese acquirers, particularly in high-tech and critical-infrastructure sectors. In public discussion, this set of developments is often summarized in shorthand claims that "China is buying the world," and is increasingly framed as part of a broader contest over technological leadership and geoeconomic influence.

Despite the prominence of these concerns, we still lack comprehensive global, firm-level evidence on the scale and consequences of Chinese corporate ownership. Existing work and official statistics provide important information on the aggregate volume and sectoral composition of Chinese outward foreign direct investment (FDI), but they cannot be used to provide answers to three basic questions that we pose in this paper: (i) where does Chinese capital actually sit within the global corporate network once it is routed through tax havens and offshore centers; (ii) who ultimately controls the firms receiving Chinese investment, and to what extent are these investors state-owned or private; and (iii) how does Chinese ownership influence firm investment, innovation, performance, and supply-chain linkages, and how do these effects compare with those of other major investor countries? Addressing these questions is essential not only for evaluating the economic implications of China's rise, but also for understanding its role in the evolving geopolitical economy of cross-border capital and technology.

---

<sup>2</sup> <https://www.aei.org/china-global-investment-tracker/>

A central obstacle is that aggregate FDI statistics are not designed to measure ownership and control at the firm level. They are based on the country of residence of the immediate investor and therefore reflect the last jurisdiction through which capital passes, rather than the country where that investment ultimately originates. FDI statistics do not trace multi-layered ownership chains through tax havens and financial centers, and they provide little information on who exercises effective corporate control. This is particularly problematic in the Chinese case, where a substantial share of outward investment is routed through conduit jurisdictions such as the Cayman Islands (Coppola et al. 2021; Clayton et al., 2023). As a result, the true extent of Chinese corporate control is often invisible in aggregate FDI data, and any attempt to assess China's global footprint using only official FDI numbers will miss a large part of the story.

To overcome these limitations, we construct, to our knowledge, the most comprehensive micro-level dataset of China's global corporate ownership to date. We identify both direct and ultimate Chinese shareholders, including those investing through offshore tax havens, by tracing multi-layered ownership chains across all jurisdictions. This detailed mapping allows us to measure not only equity ownership but also ownership with effective controlling rights. We also classify and manually check whether Chinese shareholders are SOEs or private entities and distinguish between capital originating from mainland China versus Hong Kong and Macau.

In addition to ownership data, we integrate firm-level financial statements, international patent filings, and supply chain networks to analyze the real effects of Chinese investment. Our final dataset comprises 161,773 firms across 159 countries from 2012 to 2021, encompassing more than 80% of global corporate assets. For each firm and year, we identify whether it has direct shareholders from China or if its global ultimate owner is a Chinese entity. We then estimate the impact of Chinese acquisitions on key firm-level outcomes, including innovation, investment, profitability, employment, and supply chain configuration. Beyond direct ownership effects, we also examine potential spillovers on non-acquired firms operating in the same country and industry, thereby capturing the broader systemic influence of China's overseas investment.

Before turning to the formal analyses, we present stylized facts that illustrate the scale, structure, and distribution of China's global corporate ownership. First, China has experienced the fastest growth in outward investment among major economies. In 2012, Chinese entities held approximately \$548 billion in assets in large firms outside China and controlled \$361 billion of them, representing a 0.6% global share.<sup>3</sup> By 2021, this footprint had risen to 2.5 trillion in ownership and \$2.1 trillion in control, equivalent to 2.4% of global assets, implying an average annual growth rate of 20%. In comparison, U.S. outbound corporate control increased from \$5.6 trillion to \$9.3 trillion over the same period, growing at a modest annual rate of 6%. Including Hong Kong and Macao, “Greater China” controls \$3.3 trillion, or 3.75% of global corporate assets, ranking just behind the United States (\$9.3 trillion) and the United Kingdom (\$3.4 trillion).

Second, Chinese outward investment is concentrated in strategic and knowledge-intensive sectors, notably manufacturing, information and communication, real estate, and professional, scientific, and technical activities.

Third, the geographic distribution of Chinese ownership is skewed toward advanced economies: Europe and North America together account for nearly 80% of Chinese-controlled assets, with tax havens playing a central role as intermediaries. As of 2021, firms in which Chinese entities hold ownership stakes account for 58.0% of total corporate assets in the Cayman Islands, and 41.5% in Bermuda. Many of these firms serve as intermediaries for further global investments. Among 6,409 firms with at least 10% of their equity held by Chinese entities, 65.0% involve at least one intermediary located in a tax haven jurisdiction.<sup>4</sup> These patterns highlight the importance of employing a micro-level, ownership-tracing approach to accurately map China's global corporate footprint.

---

<sup>3</sup> We formally define "ownership" and "control" in Section 1.2. Briefly, a firm is considered to have Chinese ownership if it has either a direct or ultimate shareholder that is a Chinese entity. A firm is classified as under Chinese control if a Chinese entity is either the largest direct shareholder with at least 10% equity, or the ultimate Chinese shareholder holds at least 10% equity at every tier of the ownership chain. Both ownership and control are measured based on equity stakes. To estimate the total dollar value of assets owned or controlled by Chinese investors, we aggregate the total assets of firms identified as having Chinese ownership or control. When calculating the share of Chinese ownership in a particular country or sector, we scale this aggregate by the total assets of all firms in that country or sector. Importantly, we do not calculate ownership shares based on cash flow rights, as this would lead to double counting in complex ownership chains. Therefore, in all summary statistics, we assign a firm's full asset value to China if it meets the ownership or control threshold, rather than weighting by partial equity shares.

<sup>4</sup> We do not classify Hong Kong and Macau as tax havens in our analysis, as they are already included in identifying Chinese ownership. To address the concern that foreign firms may use Hong Kong as a tax haven conduit, we restrict our sample to firms domiciled in Hong Kong—i.e., those with substantive operations or headquarters there—rather than firms merely registered in Hong Kong for legal or tax purposes.

We now turn to the empirical analysis of the real effects of Chinese ownership on acquired firms. Using a firm-level panel regression framework, we document three key findings that shed light on the consequences of China's overseas corporate investment.

First, we show that Chinese investors tend to target firms with high R&D intensity and, importantly, raise R&D spending further after acquisition. On average, acquired firms increase their R&D expenditures by about 6.8% under the narrow definition of Chinese ownership (mainland China only) and by about 4.0% under a broader definition that includes Hong Kong and Macau, relative to similar firms that are never acquired by China. This effect is stronger when Chinese shareholders hold controlling stakes and when the ultimate owner is an SOE, and they are concentrated in developed host countries.

Second, despite the rise in R&D spending, we find no corresponding increase in patent output, regardless of whether Chinese shareholders hold minority or controlling stakes. This disconnect suggests that the additional R&D expenditures may not be efficiently allocated and do not necessarily result in productive innovation. Supporting this interpretation, we observe a significant decline in firm performance after acquisitions: the return on assets (ROA) decreases by 1.1% relative to control firms, and this negative effect is largely driven by SOE acquisitions, while private Chinese investors have a much milder impact. Together, these findings point to inefficiencies associated with Chinese overseas investment. The decline in profitability alongside increased firm size and R&D spending suggests that while Chinese investment can lead to firm growth, it often comes at the cost of operational efficiency, highlighting a potential challenge for firms under Chinese ownership to convert investments into profitable outcomes.

Third, we find that Chinese acquisitions systematically increase the likelihood that acquired firms become suppliers to Chinese firms. This effect is driven by private investors and is strongest when they obtain controlling stakes. By contrast, firms acquired by Chinese SOEs are no more likely, and in some specifications are even less likely, to form supply-chain relationships with Chinese counterparts, either as suppliers or as customers. At the same time, in industries where Chinese SOEs hold substantial stakes, non-target firms reduce R&D and are less likely to supply

Chinese entities, even though aggregate industry-level R&D, patenting, and profitability remain roughly unchanged. To shed light on where the innovation gains may ultimately appear, we examine patenting at the Chinese parents themselves and find that when Chinese firms, especially SOEs, make their first acquisition in a developed economy, their own granted patents increase sharply following the deal, consistent with innovation “spillbacks” to China rather than large net gains in host-country patent output.

To strengthen the causal interpretation of our results, we leverage the *Made in China 2025* (MIC2025) initiative as a quasi-natural experiment. Launched in 2015, MIC2025 aimed to upgrade China's industrial capabilities by promoting the acquisition of advanced technologies abroad. The plan prioritized ten strategic sectors including robotics, IT, biopharmaceuticals, and advanced manufacturing, and encouraged Chinese firms, especially SOEs, to pursue overseas acquisitions in these areas.

We use MIC2025 in a difference-in-differences (DiD) design by interacting sector-level exposure to MIC2025 with a post-2015 indicator, which captures the policy-induced increase in Chinese outbound investment in targeted industries using a subsample of manufacturing firms. This variation is plausibly exogenous to the performance of foreign firms, given the top-down nature of the policy. Comparing firms in MIC2025-targeted sectors to those in non-targeted sectors before and after the policy announcement, we find patterns consistent with our main results: increased R&D spending, no significant gains in patent output, declines in performance, and increased probability to become suppliers to Chinese firms. These outcomes reinforce the interpretation that Chinese ownership, particularly by SOEs, leads to meaningful but often inefficient changes in firm behaviour. Importantly, we detect no significant pre-trends in these outcomes prior to 2015.

An important question in studying China's global investment is to understand whether China behaves similarly to other major outward investors or represents a distinct model. To tackle this task, we compare Chinese ownership to that of the United States, Japan, and India using the same sample period, ownership-tracing method, and control set. These countries are chosen for distinct

reasons, but all have a high FDI outward stock.<sup>5</sup> In addition, the U.S. is the world's largest source of outbound investment and represents a benchmark for mature, market-based capital. Japan offers a historical parallel, having pursued strategic overseas acquisitions during its own industrial rise in the 1960s and 1970s. India, as a large developing economy, provides a point of contrast to China in the context of "Global South" investment. These comparisons suggest that China's overseas investment, particularly when led by SOEs, follows a more strategic pattern that emphasizes technology acquisition and firm expansion, often at the cost of efficiency, in contrast to the more commercially driven U.S. model and the more muted patterns of Indian outward investment.

Lastly, beyond the direct effects on acquired firms, it is important to examine the broader impact of Chinese ownership on non-targeted firms operating in the same industry and country. We find that, in general, the presence of Chinese shareholders in an industry does not significantly affect the behavior of non-targeted firms. However, when the investment originates specifically from Chinese SOEs, there is a notable negative effect on R&D activity. Under the broad definition of Chinese control, a one percentage point increase in the share of industry assets controlled by Chinese SOEs is associated with an average reduction of 1.09% in R&D spending by non-targeted firms in that industry.

Interestingly, this crowding-out effect on R&D at the firm level does not translate into a measurable decline in overall industry-level R&D, suggesting that the reduction by non-targeted firms is offset, at least partially, by increased R&D spending by the acquired firms themselves. In contrast, we find no significant relationship between Chinese investment and the patent output of non-targeted firms. These findings suggest that while Chinese SOE investment may shift the distribution of innovation efforts within an industry, the aggregate impact on innovation appears limited.

Our work provides the first systematic, global, firm-level analysis of China's global network of corporate ownership and control, its real effects on acquired firms, and its spillovers to rival firms within the same industry and country. On the measurement side, we contribute to the

---

<sup>5</sup> World Investment Report, UN Trade & Development (UNCTAD), <https://unctad.org/topic/investment/world-investment-report>

literature on global capital flows and cross-border investment by highlighting the importance of identifying ultimate owners and looking through offshore financial centers (e.g., Lane and Milesi-Ferretti, 2007; Coppola et al., 2021; Clayton et al., 2023). By mapping Chinese ultimate ownership and distinguishing ownership from control, we show that conventional FDI statistics substantially understate China's presence in global corporate assets and misattribute a large share of it to tax-haven conduits.

We also contribute to research on state capitalism, SOE performance, and political objectives in corporate control (e.g., Megginson and Netter, 2001; Musacchio and Lazzarini, 2014) by documenting how Chinese SOEs and private Chinese investors differentially shape investment, innovation, profitability, employment, and supply-chain integration in acquired firms. Our evidence on the rise in R&D but muted patent response under Chinese ownership—particularly by SOEs—relates to work on cross-border M&A, technology transfer, and China's position in global value chains and industrial policy (e.g., Amiti et al., 2019; Ru and Yang, 2024). Our results show that state-led acquisitions increase R&D expenses and expand capital stock, but do not yield commensurate gains in measured innovation or profitability.

Relatedly, our evidence on the determinants of Chinese corporate ownership contributes to the growing literature on international mergers and acquisitions. This literature has identified various drivers of foreign acquisitions, including access to larger product markets (e.g., Yeaple 2003; Di Giovanni 2005), access to deeper financial markets (e.g., Alquist et al. 2014; Aguiar and Gopinath 2005; Baker et al. 2009), access to stronger investor protection rights (e.g., Bris and Cabolis 2008; Rossi and Volpin 2004; Chari et al. 2010), and access to more favorable tax regimes or regulations (e.g., Huizinga and Voget 2009). We extend this literature by showing that Chinese foreign investments, particularly those tied to the Chinese government, are often motivated by strategic objectives, such as securing natural resources or facilitating technology transfer. Consequently, firms acquired by Chinese investors tend to exhibit weaker subsequent performance relative to comparable targets following the change in ownership.

Our paper proceeds as follows. Section 1 describes the data and identifies Chinese ownership. Section 2 presents stylized facts of China's global ownership and studies its motivations. Section 3 evaluates the impacts of Chinese investment on target firms' innovation, performance, and supply chain integration, and Section 4 provides identification evidence for causality using Made in China 2025 as the exogenous shock. Section 5 compares the impact of China's investment with that of the United States, Japan, and India. Section 6 studies the spillover effects on non-target peer firms not directly acquired by China and Section 7 shows the spillback channel from foreign subsidiaries to Chinese parent firms. Section 8 concludes.

## **1. Identifying Chinese Ownership**

### **1.1. Orbis Ownership and Financial Data**

Our primary data source is Moody's Orbis (formerly Bureau van Dijk), which provides harmonized ownership and financial data for over 400 million public and private firms in 212 economies. We construct a panel spanning 2012 to 2021, a decade characterized by dramatic growth in China's global corporate footprint. To mitigate sample attrition bias, we utilize a series of annual Orbis downloads to build a robust panel dataset which retain firms that subsequently exit the database, following the established methodology in Kalemli-Ozcan et al. (2024).

The Orbis Ownership data provides the historical ownership information of corporations. For each firm in a given year, it reports the firm's name, identifier (*BVDID*), country of domicile, its direct shareholders, and their equity stakes. It also reports *GUO25* and *GUO50*, which identify the global ultimate owner when *each and all* levels in the ownership hierarchical chain hold at least 25% or 50% of equity, respectively. <sup>6</sup>

To study China's outbound investment, we focus on non-Chinese firms. We exclude all entities whose *BVDID* starts with "CN" or whose *CTRYISO* code equals "CN," as well as firms domiciled

---

<sup>6</sup> Orbis uses *DUO* and *GUO* as the abbreviations of Domestic Ultimate Owner and Global Ultimate Owner, respectively. Since we focus on international investments in this paper, the concept of *GUO* is more relevant. We use the terms *DUO*, *GUO*, and *UO* interchangeably to abbreviate the term Ultimate Owner throughout the paper.

in Hong Kong and Macau, which are under Chinese sovereignty but are separate economic jurisdictions.<sup>7</sup>

The Orbis Financials module provides firm-level financial statements. For multinational groups, Orbis often reports both consolidated and unconsolidated accounts. To avoid double-counting, we retain unconsolidated accounts when both are available. We also exclude financial firms, which are frequently holding or financing vehicles that do not engage in actual business. Most firms in Orbis report unconsolidated accounts.

For each firm-year, Orbis classifies filings as "local registry filing" or "annual report." When both are available, we keep the local registry filing, which represent the predominant reporting format. We use the U.S. dollar version of these filings rather than local currencies to facilitate cross-country analyses. We restrict the sample to annual accounts, exclude filings covering fewer than 12 months, and, when fiscal year-ends change within a calendar year, keep the account with the latest closing date. For remaining duplicates, we select the account with the most complete set of key variables, in particular total assets.

From Orbis Financials, we collect firm-level variables in several categories. Financial position variables include total assets (*TOAS*), fixed assets (*FIAS*), long-term debts (*LTDB*), loans (*LOAN*), and creditors (*CRED*).<sup>8</sup> Performance metrics comprise R&D expenses (*RD*), sales (*TURN*), and return on assets (*ROA*). We also collect operational data, including the number of employees (*EMPL*) and the year of incorporation (*DATEINC\_year*). We construct new variable *Debts* as long-term debt plus loans plus creditors. At the industry-country-year level, we compute a Herfindahl index based on sales to measure market concentration. All raw variables are winsorized at the 1st and 99th percentiles. For variables not expressed as ratios (R&D, total assets, fixed assets, debts), we then apply a logarithmic transformation after winsorization. Table A1 of the Appendix details variable definitions.

---

<sup>7</sup> We use domicile country instead of incorporation country to identify Hong Kong and Macau firms because foreign firms may register in Hong Kong and Macau for tax reasons but not actually operate there.

<sup>8</sup> "Creditors" in Orbis refer to "trade payables to suppliers and contractors."

We merge ownership and financial data by *BVDID* and year, obtaining 98 million firm-year observations for 23 million firms in 171 countries. We then construct our main analysis sample in two steps. First, we require non-missing total assets. Second, we restrict to firms Orbis classifies as "*Very Large Company*." Although these account for about 1% of all firms in the Orbis dataset, they hold at least 80% of total assets among firms with non-missing ownership and asset information and thus represent the bulk of global corporate assets.

The *Very Large Company* classification criteria vary by country, reducing the likelihood of any country being overweight or underrepresented in this sample. Most importantly, the coverage of many key variables is substantially better in the *Very Large Company* sample compared to the full sample. For instance, among all firms with non-missing assets and ownership information, 97.06% of firm-years have missing R&D expenses, versus 82.76% in the *Very Large Company* subsample.

Our final sample contains 1,166,282 firm-year observations for 161,773 firms in 159 countries.

## **1.2. Methodology**

We identify Chinese ownership using both direct shareholders and reconstructed ownership chains.

We first flag direct Chinese shareholders: any shareholder whose *BVDID* begins with "CN" or whose ISO country code equals "CN." This direct approach misses many Chinese investments that use multi-layered and offshore structures (Coppola et al. 2021; Clayton et al. 2023).

To capture ultimate ownership, we start from Orbis's *GUO25* definition, which identifies a global ultimate owner when each link in the ownership chain holds at least 25% of equity. While the *GUO25* variable provides a useful starting point, we find its coverage incomplete. To evaluate and improve upon this measure, we independently reconstruct ownership hierarchies by tracing ownership chains layer by layer, applying the same 25% threshold used by Orbis. Our reconstructed *GUO25* matches about 95% of Orbis's *GUO25* flags and identifies approximately 20% additional ultimate owners that Orbis does not report.

This reconstruction improves coverage and allows us to compute voting and cash-flow rights at each tier in the chain, In contrast, Orbis only reports direct ownership percentages for immediate shareholders and assigns control rights at the ultimate level. The Online Appendix (Section II) provides algorithmic details.

We then apply the same procedure using a 10% threshold to construct *GUO10*, a broader notion of ultimate ownership that is particularly effective in detecting ownership structures that are obscured via tax haven intermediaries. Using Orbis's *GUO25*, we identify 2,435 firms with Chinese ultimate owners, 56.3% of which involve at least one tax haven intermediary. With our reconstructed *GUO25*, the number rises to 4,532 firms, 65% involving tax havens. Under *GUO10*, we identify 6,409 Chinese-owned firms, again with about 65% using tax haven conduits.

Two cases illustrate the importance of using *GUO10* and tracing through offshore entities. Rio Tinto, a UK mining conglomerate, is not flagged as Chinese-owned under Orbis's *GUO25*, but our *GUO10* links its 14% Singaporean shareholder, Shining Prospect PTE LTD, to the Aluminium Corporation of China, a Chinese SOE, making Rio Tinto qualified as both China-owned and Chinese-SOE-controlled under our definition. Bang & Olufsen, a Danish consumer electronics firm, similarly appears non-Chinese under *GUO25*, but our *GUO10* links its 15.1% Bermudan shareholder, New Sparkle Roll International Group Limited, to a Chinese entity, revealing Chinese ultimate ownership.

Based on these ownership chains, we construct two firm-level indicators:

- **CNOwn (Ownership)** equals one if a firm (i) has at least one direct Chinese shareholder or (ii) has a Chinese global ultimate owner under *GUO10* with at least 10% equity at the ultimate level.
- **CNOwn (Control)** equals one if (i) the largest direct shareholder is Chinese with at least 10% equity or (ii) the Chinese global ultimate owner holds at least 10% equity at every tier in the chain.

CNOwn (Ownership) captures the presence of Chinese capital; CNOwn (Control) isolates cases where Chinese investors plausibly exercise control.

We further split Chinese investors into state and private using a two-step classification approach. First, we use Orbis entity type codes to identify Chinese government agencies, labelled as "public authority, state, government." Second, we define a Chinese SOE as any firm whose global ultimate owner is such a government entity. All other Chinese firms are classified as private. We validate this classification approach by applying it to a sample of Chinese-domiciled firms and examining the resulting trends in SOE capital over time. The resulting SOE share of domestic assets under the 25% threshold is consistent with Allen et al. (2024), who use a 30% threshold and estimate that SOEs account for about 40% of China's domestic corporate assets.<sup>9</sup>

Using this classification, we construct two additional ownership variables.  $CNOwn*SOE$  is equal to one if a firm's  $GUO10$  is either a Chinese government agency or a Chinese SOE.  $CNOwn*Prt$  is equal to one if the ultimate owner is a Chinese private firm. These indicators allow us to separately study the patterns and real effects of state versus private Chinese global ownership.

### 1.3. Other Data

#### International Patent Data

We obtain global patent data from the Orbis Patent module, which links Orbis firm identifiers to patent records from the Worldwide Patent Statistical Database (*PATSTAT*). *PATSTAT* reports application, publication, and grant information, plus inventor, applicant, and family identifiers, and covers roughly 168 million patent filings for about 2.4 million companies. The data have been widely used in prior studies, for example, Kong et al. (2022) and Moshirian et al. (2021).

Orbis Patent matches these records to both public and private firms, enabling us to link innovation outcomes to ownership and financial information. Our main innovation measure is  $\#GrantedPatents$ , defined as the number of patents applied for by the firm that are granted within the following three years.

---

<sup>9</sup> Note that while we use a 10% threshold to identify whether a firm is under Chinese ownership or control, we adopt a stricter criterion when classifying Chinese state-owned enterprises. Specifically, a Chinese entity is labelled as a "China SOE" if its ultimate owner is a Chinese central or local government agency and it holds at least 25% equity at each tier of the Chinese ownership chain. This 25% threshold aligns with conventional definitions of significant control and helps avoid over-classifying firms with marginal state ties as SOEs. A detailed comparison with Allen et al. (2024) is presented in the Online Appendix Figure A2.

To avoid double-counting, we follow the methodology of Liu and Ma (2021): patent filings across multiple jurisdictions are counted once per family, and joint applications by multiple firms are apportioned equally across applicants using fractional counts. As a validation step, we aggregate applied and granted patents by office and year and compare these aggregates to the summary statistics in Liu and Ma (2021). Our data closely replicate their reported patterns (see Figure A1 in the Online Appendix).

### **Global Supply Chain Data**

We obtain firm-level supply-chain links from FactSet Revere. A firm is classified as a customer of China if FactSet records that it purchases goods or services from a Chinese firm or receives licensed products, patents, intellectual property, or technology from a Chinese firm. A firm is classified as a supplier to China if FactSet records that it sells goods or services to a Chinese firm, provides paid manufacturing, marketing, branding, advertising, or distribution services, or licenses products, patents, intellectual property, or technology to a Chinese firm.

We merge FactSet Revere with our Orbis sample by ISIN and calendar year; about 10% of firm-year observations are matched.

At the country-industry level, we use the OECD Input-Output Tables, which report intermediate input and output flows for 45 ISIC Rev. 4 industries in 76 countries (OECD, 2023). For each country-industry-year, we construct two measures: the China input share (intermediate inputs sourced from China divided by total intermediate inputs),  $II_{CN} / II$ , and the China output share (intermediate outputs sold to China divided by total intermediate outputs),  $IO_{CN} / IO$ . Because our firm-level industries also follow ISIC Rev. 4, we can merge these measures directly by country, industry, and year.

## **2. Stylized Facts of China's Global Corporate Ownership**

In this section, we document key patterns in China's global corporate footprint. We first describe the scale and distribution of Chinese ownership across countries, regions, and industries.

We then relate Chinese ownership to target-country and industry characteristics, focusing on innovation, supply-chain linkages, and natural resources.

## 2.1 Global Scale and Distribution

Using the ownership measures described in Section 1, we compute, for each firm, the total assets owned or controlled by Chinese investors, either through direct shareholding or ultimate ownership. Aggregating these firm-level assets, Table 1 reports China's global corporate footprint by country and industry, ranked by total asset value and by the share of local assets under Chinese ownership or control.

To quantify Chinese presence in a given country or sector, we assign the full asset value of a firm to China whenever it meets our Chinese-ownership or control threshold. We do not weight assets by cash-flow rights along the chain, which avoids double-counting the same assets through multiple intermediate entities. All country- and industry-level statistics therefore represent the share of local assets held by firms classified as Chinese-owned or Chinese-controlled.

[Insert Table 1 about here]

**Country-level patterns.** Panel A of Table 1 shows that Chinese ownership is highly concentrated in a small set of jurisdictions. On average over 2012-2021, firms owned by Chinese shareholders account for 46% of total assets in the Cayman Islands, 23% in Bermuda, and 19% in the British Virgin Islands. These numbers highlight the central role of offshore financial centers in Chinese outbound investment. Significant ownership shares also appear in Portugal (14%) and Singapore (10%), which serve as gateways to the European Union and key Asian hubs.

Panel B ranks countries by the dollar value of assets held by Chinese shareholders. The Cayman Islands tops the list with USD 421 billion per year over 2012-2021, followed by the United Kingdom with USD 383 billion. Other advanced economies such as Australia, Singapore, and Bermuda also rank highly. These volumes reflect both China's extensive use of offshore and financial centers and its emphasis on investing in developed markets.

**Industry-level patterns.** Panels C and D of Table 1 summarize industry patterns. Chinese entities hold the highest average ownership shares in education (4.91%), accommodation and food services (4.44%), mining and quarrying (4.26%), transport (3.11%), and information and communication (3.04%). These shares point to a mix of traditional infrastructure-related sectors and capital-intensive service and knowledge industries.

In terms of asset volumes, Chinese investment is largest in manufacturing (average USD 398 billion), professional and scientific activities (USD 263 billion), and energy and utilities (USD 198 billion). Real estate ownership also rises sharply: Chinese-controlled real estate assets average USD 132 billion over the period, corresponding to roughly an 850% increase from 2012-2014 to 2019-2021. Overall, these patterns suggest a dual strategy that targets both heavy industrial sectors and emerging, service-based or knowledge-intensive domains.

[Insert Figures 1, 2, 3, 4, and 5 about here]

**Evolution over time.** Figure 1 plots the evolution of China's global corporate ownership among very large firms. Total assets owned by Chinese shareholders increase from USD 548 billion in 2012 to USD 2.50 trillion in 2021, implying an average annual growth rate of about 20%. For comparison, U.S. outbound corporate ownership grows from USD 10.01 trillion to USD 18.14 trillion over the same period, at an annual rate of about 6.95%. When Hong Kong and Macau are included, Greater China's outbound holdings rise from USD 942 billion in 2012 to USD 4.27 trillion in 2021.

Figure 2 focuses on China's global control of the very large firm sample. Of the USD 548 billion assets owned by Chinese shareholders in 2012, Chinese investors control USD 361 billion, or about 0.58% of global corporate assets. By 2021, Chinese-controlled assets reach USD 2.08 trillion under the narrow (China-only) definition and USD 3.29 trillion for Greater China. This again corresponds to an average annual growth rate of 20%. As of 2021, Greater China ranks third globally in outbound corporate control, behind the United States (USD 9.27 trillion) and the United Kingdom (USD 3.43 trillion).

**Sectoral and regional trends.** Figure 3 documents sectoral trends in China's overseas asset allocation. Ownership in resource-based industries such as mining and quarrying remains relatively stable over time, while substantial growth occurs in technology- and capital-intensive sectors. In particular, assets in information and communication increase sharply, and real estate assets under Chinese control grow at an exceptional rate, consistent with the patterns in Table 1.

Figure 4 shows the regional distribution of Chinese outbound corporate assets. As of 2021, Chinese investment is concentrated in Europe (41.8%) and North America (37.7%), with Asia accounting for 14.8% of total Chinese-held assets. This regional pattern underscores a strategic focus on advanced economies. At the same time, China's share of investment in Africa, Oceania, and South America declines from a peak of 17% to below 6% over the sample period. The share in Asia also falls modestly, from 19% in 2012 to 15% in 2021. In Figure A1 of the Appendix, we also zoom in on key tax havens and show that, as of 2021, firms in which Chinese entities hold ownership stakes account for 58.0% of total corporate assets in the Cayman Islands, 41.5% in Bermuda, and 15.0% in the British Virgin Islands. These numbers underscore the central role of offshore centers in China's global ownership network.

**Ownership composition.** Figure 5 traces the composition of China's global ownership by state versus private investors. Both components rise steeply over 2012-2021, but the expansion is driven primarily by private firms: their overseas asset holdings grow faster and reach clearly higher levels than those of SOEs by the end of the sample. SOE-controlled assets also increase over time, yet at a more modest pace.

## 2.2 Targets of Chinese Overseas Investment

Our analysis begins with relating Chinese ownership to firm and industry characteristics. Table 2 reports summary statistics for the full sample and for firms with and without Chinese owners. Firms with Chinese owners are, on average, larger in terms of assets and sales, spend more on R&D, are slightly less likely to report blank R&D, and have lower ROA than other very large

firms. They also appear more frequently as suppliers to or customers of Chinese firms in the FactSet Revere data, consistent with a stronger connection to Chinese production networks.

[Insert Tables 2 and 3 about here]

At the country-industry-year level, we study which sectors attract more Chinese capital by regressing the log of total assets owned by Chinese entities in industry  $j$  of country  $c$  in year  $t+1$  on contemporaneous country-industry characteristics, including aggregate R&D, profitability, supply-chain linkages with China (from OECD input-output tables), and measures of natural resource abundance, controlling for size, leverage, and concentration, plus fixed effects.

The estimates in Table 3 show three robust patterns. First, country-industries with higher aggregate R&D expenditure attract significantly more Chinese-owned assets. A 10% increase in aggregate R&D is associated with approximately 0.87%-1.23% more Chinese-owned assets overall, 0.92%-1.28% more assets owned by private Chinese investors, and 0.23%-0.28% more assets owned by Chinese SOEs, holding other factors constant. These elasticities are statistically significant at conventional levels, indicating a systematic tilt of Chinese investment toward R&D-intensive sectors.

Second, Chinese investment is strongly tilted toward sectors that are more integrated with China in global value chains. Quantitatively, a one percentage point increase in a sector's output share to China ( $IO_{CN}/IO$ ) is associated with roughly 6-11% more Chinese-owned assets overall or assets owned by private or SOE investors in the following year. By contrast, the China input share ( $II_{CN}/II$ ) is significantly positive only for total Chinese-owned assets, and significantly negative for SOE-owned assets. This asymmetry suggests that while both private and state investors follow downstream demand linkages to China, SOEs are relatively less likely to invest in sectors that already rely heavily on Chinese intermediate inputs.

Third, Chinese investment is systematically higher in countries with larger natural resource rents, but the difference between SOEs and private investors is modest. The coefficient on natural resource rents (as a share of GDP) is positive and statistically significant for all three dependent variables in Table 3. A one percentage point increase in natural resource rents is associated with

roughly 1.5% more total Chinese-owned assets, 1.3% more assets held by private Chinese investors, and about 0.5% more assets held by Chinese SOEs, holding other factors constant.

### 3. The Real Impact of China's Ownership on Target Firms

Having established that Chinese investors strategically target certain industries, we now turn to the outcomes of these investments at the firm level. In this section, we evaluate how Chinese ownership affects the acquired firms' behavior, in particular, innovation input and output (R&D spending and patenting), firm growth (assets and employment), profitability and efficiency (ROA and other financial metrics), and supply chain integration. We also assess whether the effects differ when the investor is an SOE versus a private entity.

Formally, we estimate firm-level panel regressions that compare the changes in outcome variables for firms before and after becoming Chinese-owned (treatment group) to contemporaneous changes in similar firms that remain without Chinese ownership (control group). This approach, akin to a propensity-score matched difference-in-differences, includes firm fixed effects to control for any time-invariant differences between target and non-target firms, and year fixed effects to account for macroeconomic trends. We also employ country-by-year and sector-by-year two-way fixed effects in the Appendix. The findings are robust across these alternative specifications. In essence, identification comes from within-firm changes around the event of Chinese acquisition, relative to peers, controlling for common shocks.

Specifically, we estimate the following panel regression model:

$$Y_{i,t} = \alpha + \beta_1 \times \text{CNOwn}_{i,t} + \text{Control} + \alpha^{FE} + \varepsilon_{i,t}.$$

The dependent variable  $Y_{i,t}$  captures a range of firm-level outcomes and is grouped into three categories. The first captures innovation performance, using the logarithm of R&D expenditures ( $\text{Log}(1 + R\&D)$ ) and the aggregated number of granted patents for firm  $i$  from year  $t + 1$  to  $t + 3$  ( $\#GrantPatent$ ). The second group measures firm operations and financial outcomes: the logarithm of fixed assets ( $\text{Log}(1 + Fixed)$ ), return on assets ( $ROA$ ), and the logarithm of the number of employees ( $\text{Log}(1 + Empl)$ ). The third group assesses supply chain integration, using

two binary indicators: *CNSupplier*, which equals one if the firm supplies goods or services to a Chinese entity, and *CNCustomer*, which equals one if the firm purchases from or distributes Chinese goods.

Our key explanatory variable, *CNOwn*, is an indicator equal to one if a firm is owned by a Chinese entity, defined either through direct shareholding or ultimate ownership at or above the 10% threshold.

We control for a rich set of firm-level characteristics, including total assets, fixed assets, total debt, sales, employment, operating revenue, ROA, net profit, and cash flow. To account for market concentration, we include the Herfindahl index of industry sales and its squared term. When necessary, we omit highly collinear controls based on the specific outcome variable.

Recent work by Chen and Roth (2024) and Cohn et al. (2022) shows that for outcomes with a large mass at zero, transforming the variable using “one plus the outcome” (e.g.,  $\log(1 + y)$ ) can be problematic. In our setting, *#GrantPatent* has precisely this feature, so we follow Chen and Roth (2024) and estimate fixed-effects Poisson regressions instead of OLS. This concern is less severe for our other outcomes, which are either not integer-valued or not heavily concentrated at zero. For R&D, the variable is strictly positive but has many missing values, which we code as zero. By including a *Blank\_R&D* indicator, following Koh and Reeb (2015), we can also capture treatment effects on the extensive margin, another concern emphasized by Chen and Roth (2024).

Beyond the baseline regression, we extend our analysis by differentiating between SOE and private ownership using the following regression model:

$$Y_{i,t} = \alpha + \beta_1 \times CNOwn_{i,t} + \beta_2 \times CNOwn * SOE_{i,t} + \text{Control} + \alpha^{FE} + \varepsilon_{i,t}.$$

Here the interaction term *CN\_Own \* SOE<sub>i,t</sub>* captures differential effects when the Chinese owner is a state-owned or government-related entity.

### 3.1. Innovation: R&D and Patents

We first examine innovation input. As discussed, many Chinese acquisitions involve firms with high R&D intensity. A central question is whether Chinese ownership further boosts these firms' innovation efforts and whether such efforts translate into measurable outputs like patents.

R&D expenses are frequently not reported in financial statements, particularly among firms operating in emerging markets. Rather than simply dropping these observations or treating missing values as true zeros, we follow the R&D-disclosure literature in treating non-reporting as systematic.<sup>10</sup> Guided by Koh and Reeb (2015), our baseline sets missing R&D to zero and include an indicator variable (*Blank\_R&D*) to explicitly denote instances of unreported R&D. Moreover, we perform robustness checks by excluding firm-year observations where R&D data are missing. This dual-strategy approach enhances the robustness of our results, ensuring they reflect genuine economic relationships rather than artifacts of data handling procedures (Koh et al., 2022).

Rather than simply dropping these observations or treating missing values as true zeros, we follow the R&D-disclosure literature in treating non-reporting as **systematic**. Koh and Reeb (2015) show that missing R&D is pervasive and that assuming “no R&D” for non-reporters can bias inferences; Koh, Reeb, and Zhao (2018) document that managerial traits such as CEO confidence affect whether R&D is disclosed; and Koh et al. (2022) demonstrate that excluding firms with unreported R&D (“deleting unreported innovation”) distorts estimates of the relation between R&D and firm outcomes. Guided by this evidence, our **baseline** sets missing R&D to zero and includes a **Blank\_R&D** indicator to flag non-reporting firm-years, and we treat specifications that drop missing R&D as **robustness checks** rather than primary estimates.

[Insert Table 4 about here]

---

<sup>10</sup> Koh and Reeb (2015) show that missing R&D is pervasive and that assuming “no R&D” for non-reporters can bias inferences; Koh, Reeb, and Zhao (2018) document that managerial traits such as CEO confidence affect whether R&D is disclosed; and Koh et al. (2022) demonstrate that excluding firms with unreported R&D (“deleting unreported innovation”) distorts estimates of the relation between R&D and firm outcomes.

Table 4 presents the results. Panel A explores different definitions and conditions of Chinese ownership, both with and without firm-level control variables. Across all specifications, we find that Chinese ownership is associated with a statistically significant increase in target firms' R&D expenditures. In the baseline panel regression (column 1, Ownership-Narrow), the coefficient on the Chinese ownership indicator implies that, on average, acquired firms increase R&D spending by about 6.8% relative to the control group of firms without Chinese investors. This effect is statistically significant at the 5% level. When we require Chinese shareholders to hold controlling stakes (Control-Narrow), the estimated R&D increase is larger ( $\approx 8.0\%$ ) and remains statistically significant (5% level), as shown in column 5. This amplified economic magnitude indicates that greater ownership stakes grant Chinese shareholders increased influence over decisions related to R&D expenditures.

When we broaden the definition of Chinese ownership to include ultimate investors in Hong Kong and Macau, the magnitude attenuates. For example, the coefficient declines to 0.047 in column 7 (Ownership-Broad). Even so, the effects are robust across specifications, with coefficients ranging between 0.040 to 0.162 after controlling for comprehensive firm-level characteristics, pointing to economically meaningful increases in R&D expenditures under Chinese investment.

Panel B further distinguishes the impact of overall Chinese ownership from SOEs by introducing  $CNOwn$  and  $CNOwn*SOE$  as independent variables. Our analysis reveals that the increase in R&D is particularly pronounced when the acquirer is a Chinese SOE. Under the control by Greater China investors, the coefficient for  $CNOwn*SOE$  is 0.274, significant at the 5% level. This implies that Chinese state ownership elevates R&D expenses by approximately 27.4 percentage points compared to private Chinese ownership.

To pinpoint the origins of these effects, we stratify the sample into developed and emerging market economies based on the United Nations classification and restrict our analysis to firms ever owned by a Chinese shareholder, thus capturing the extensive margin of Chinese ownership influence.<sup>11</sup> The results reveal that the positive association between Chinese ownership and R&D investment predominantly occurs in developed countries and primarily for firms under SOE ownership, with insignificant effects noted in emerging markets. This pattern suggests that Chinese SOEs emphasize technology acquisition and innovation within developed economies, where institutional and economic contexts align with their strategic objectives. Conversely, the comparatively weaker effects observed in emerging markets underscore differences in the nature and goals of Chinese investments, contingent upon the local economic and institutional environment.

Additionally, in Appendix Table B1, we address concerns regarding potential biases from managerial discretion in disclosing R&D information before and after Chinese acquisition. We conduct robustness tests by excluding observations with missing R&D data and repeating the regressions from Table 4. The findings remain consistent, demonstrating that Chinese ownership continues to be positively correlated with increased R&D expenditures, a relationship primarily driven by ownership from Chinese SOEs rather than private Chinese entities.

[Insert Table 5 about here]

Turning to innovation outputs, Table 5 examines the number of granted patents over the subsequent three-year window as the dependent variable, using Poisson models. In Panel A, under the narrow version of Chinese ownership, the coefficient on *CNOwn (Ownership)* is 0.066, and that of *CNOwn (Control)* is 0.109, with the former statistically insignificant and the latter significant at the 5% level. By contrast, under the broad version of Chinese ownership by

---

<sup>11</sup> UN's definition: [https://www.un.org/en/development/desa/policy/wesp/wesp\\_current/2014wesp\\_country\\_classification.pdf](https://www.un.org/en/development/desa/policy/wesp/wesp_current/2014wesp_country_classification.pdf). We manually reclassify Singapore, South Korea, and Taiwan into the developed country list from the emerging market list given their advanced economy and technology. China (Mainland) and Hong Kong SAR are excluded from both lists. Please see Table A4 in the Appendix for details.

incorporating investors from Hong Kong and Macau, the relation slightly strengthens: the coefficient on *CNOwn (Ownership)* is 0.058 with a standard error of 0.040, statistically insignificant, and that of *CNOwn (Control)* is 0.141 with a standard error of 0.053, significant at the 1% level.

Panel B further distinguishes ownership by SOEs versus. Here, the coefficients for both *CNOwn* and *CNOwn\*SOE* are consistently insignificant. These results suggest that although Chinese SOEs actively stimulate increased R&D spending in target firms, these investments do not necessarily result in a proportional rise in patent filings.

The absence of a significant relationship between Chinese ownership and patent output highlights a disconnect between investment inputs and innovation outcomes under Chinese ownership. In Section 7, we reconcile this disconnect by presenting evidence that patenting may instead increase at the Chinese parent level, particularly for SOEs acquiring developed-country targets.

### **3.2. Investment Efficiency, Profitability, and Employment**

Next, we assess the impact of Chinese shareholders on efficiency, profitability, and employment, beginning with an analysis of ROA as a measure of profitability. Table 6 presents the corresponding regression results, indicating that the coefficient for *CNOwn* is -1.072, statistically significant at the 1% level. This result implies that the introduction of Chinese shareholders is associated with a reduction of 1.072 percentage points in ROA for targeted firms, suggesting a negative impact of Chinese ownership on profitability. For context, the mean and median ROA for firms without Chinese ownership in our sample are 3.9% and 3.5%, respectively, as shown in Table 2. Panel B differentiates between Chinese SOEs and private shareholders, showing the coefficient for *CNOwn\*SOE* is -1.359, significant at the 5% level. This indicates that

the decline in profitability is predominantly driven by Chinese SOE ownership rather than private ownership.

[Insert Table 6 about here]

Additionally, Table 6 explores the impact of Chinese ownership on firm size, using total assets as the dependent variable. In Column (2) of Panel A, the coefficient for *CNOwn* is 0.072, statistically significant at the 1% level, reflecting a 7.2% increase in firm size linked to Chinese ownership. Further, Panel B reveals a coefficient of 0.094 for *CNOwn\*SOE*, significant at the 10% level, whereas the overall coefficient for *CNOwn* is smaller, at 0.063, significant at the 1% level. These findings align with previous results on R&D, demonstrating that Chinese SOE ownership corresponds to a total firm size increase of 15.7% (6.3% + 9.4%), indicating a more substantial influence on firm growth compared to overall Chinese ownership. This underscores the strategic preference of SOEs to foster larger, more integrated enterprises.

Finally, we investigate the effect of Chinese ownership on employment. Column (3) of Panel A reports a coefficient of -0.022 for *CNOwn*, significant at the 10% level, indicating a 2.2% reduction in employment following Chinese acquisition. Panel B incorporates the *CNOwn\*SOE* variable, resulting in an insignificant coefficient of 0.038. This outcome suggests that reductions in workforce size are predominantly driven by private Chinese investors rather than SOEs.

In summary, our analysis highlights a pattern wherein Chinese ownership in non-China-incorporated firms contributes to inefficiencies characterized by increased investments and firm size without proportional enhancements in critical performance indicators, coupled with a decrease in employment. While Chinese shareholders, particularly SOEs, significantly boost R&D investments and firm growth, these increases do not translate effectively into higher patent outputs. This indicates a disconnect between the resources allocated to innovation and the tangible outcomes realized, suggesting potential inefficiencies in the utilization of R&D investments under

Chinese ownership. Furthermore, the notable reduction in profitability, especially pronounced under SOE ownership, highlights operational inefficiencies accompanying firm expansion and heightened R&D spending. These findings emphasize that although Chinese investments promote firm growth, they frequently do so at the expense of operational efficiency, posing challenges for firms to translate increased investment into profitable results.

### 3.3. Supply Chain

[Insert Table 7 about here]

In this subsection, We examine whether firms that become Chinese-owned (*CNOwn*) are subsequently more likely to integrate into Chinese supply chains. Using the FactSet Revere database, we identify whether a Chinese-owned firm, after acquisition, appears as a supplier to or customer of a Chinese entity or an entity whose *GUOIO* is a Chinese entity.

Panel A of Table 7 (*CNSupplier* as the dependent variable) shows that Chinese ownership is associated with a higher probability that targets become suppliers to Chinese firms, but this pattern is concentrated among private Chinese acquirers. Under the broad control definition, the coefficient on *CNOwn* is 0.088 and significant at the 1% level, implying an 8.8% increase in the probability that a privately owned Chinese acquirer integrates the target into its upstream supply chain. The coefficient on *CNOwn\*SOE* is -0.139 (1% significance), more than offsetting this effect. Thus, for SOE acquisitions, the net impact on supplier relationships is effectively zero or negative.

Panel B (*CNCustomer* as the dependent variable) shows only modest and statistically weaker increases in downstream linkages. The coefficients on *CNOwn* are 0.020 under broad ownership and 0.022 under broad control, positive but small and statistically insignificant. And the SOE interactions are again negative and insignificant, implying little to no net increase in downstream ties for SOE acquisitions.

Taken together, the evidence points to supply-chain integration on the supplier margin, as phenomenon driven by private Chinese ownership, not by SOEs. This pattern is consistent with private acquirers pursuing commercial vertical synergies similar to those of other multinational buyers, whereas SOE acquisitions reflect different mandates, focused on technology acquisition and strategic assets, rather than embedding targets broadly into Chinese production networks.

#### **4. Identification**

To address potential concerns regarding the causal interpretation of our results in Section 3, we leverage China's "Made in China 2025" (MIC2025) initiative as a quasi-natural experiment.<sup>12</sup> Announced in 2015, MIC2025 is a state-led industrial policy aimed at accelerating China's ascent in ten strategic high-tech fields, including next-generation information technology (IT) and telecommunications, new-energy vehicles, advanced robotics and AI, aerospace, advanced materials, high-end rail, marine engineering, and biopharmaceuticals. The policy explicitly encouraged outward acquisitions and investments, especially by SOEs, to access advanced technologies abroad. This policy shock generates plausibly exogenous variation in Chinese ownership around 2015 in sectors singled out by MIC2025, reflecting policy incentives rather than firm-specific fundamentals.

Our identification strategy constrains the sample along countries and industries to improve comparability between treated and control observations. On the country dimension, we focus on the UN list of developed economies augmented with Singapore, South Korea, and Taiwan (42 countries; the full list appears in Appendix Table A4). These jurisdictions align with China's outward investment priorities and host leading firms in MIC2025 target areas (e.g., the United States in aerospace/semiconductors/AI; South Korea in IT and displays; the Netherlands in semiconductor equipment; Singapore in biotech and digital infrastructure; Taiwan in advanced

---

<sup>12</sup> Understanding China's 2025 Ambitions: <https://www.thecipherbrief.com/understanding-chinas-2025-ambitions#:~:text=China%20is%20on%20a%20multi,achieving%20manufacturing%20dominance%20by%202025>

semiconductor manufacturing). On the industry dimension, we retain one-digit NACE Rev. 2 / ISIC Rev. 4 sectors C (Manufacturing), J (Information & Communication), and M (Professional, Scientific & Technical Activities). These sectors are technologically proximate to the MIC2025 focus and serve as the universe from which we define treated vs. peer controls, ensuring similar observable characteristics.

We then mark treated industries according to MIC2025's targeted domains and define an indicator *TreatedSector* that equals one for firms operating in those industries and zero otherwise. Since MIC2025 was launched in 2015, we set  $Post2015 = 1$  for years  $\geq 2015$  and 0 otherwise. To keep a balanced window and reduce confounds, the estimation sample is 2012-2017, three years before and after the policy shock. To probe trends prior to the shock, we include lead-up indicators: *Pre1* and *Pre2* for 2013 and 2012, respectively.

The baseline difference-in-differences specification is thus formalized as follows:

$$\begin{aligned}
 CNOwn_{i,t} = & \alpha + \beta_1(TreatedSector \times Post2015) + \beta_2(TreatedSector \times Pre1) \\
 & + \beta_3(TreatedSector \times Pre2) + \gamma Controls_{i,t} + FirmFE \\
 & + Country \times YearFE + \varepsilon_{i,t}
 \end{aligned}$$

where *CNOwn* is an indicator for whether firm *i* is Chinese-owned in year *t* under narrow control definition. The coefficient  $\beta_1$  captures the post-2015 differential change in Chinese ownership for firms in MIC2025-targeted sectors relative to non-targeted sectors. We include firm fixed effects to control for time-invariant firm characteristics and country\*year two-way fixed effects to absorb any country-specific common shocks. We also estimate analogous regressions for *CNOwn\*SOE* and *CNOwn\*Pvt* to distinguish changes driven by state-controlled vs. private Chinese investors.

[Insert Table 8 about here]

In Table 8, Panel A shows a significant increase in Chinese ownership among firms in targeted sectors following the introduction of MIC2025. The coefficient on  $TreatedSector \times Post2015$  in the  $CNOwn$  regression is 0.003, significant at the 10% level. Economically, this indicates a 0.3% increase in the likelihood of Chinese ownership compared to firms in non-targeted sectors. Although seemingly modest in absolute terms, this increase is economically meaningful given the baseline incidence of approximately 2% China-owned firms in our sample, reflecting about a 10% relative increase.

Disaggregating by investor type, the rise is driven by SOEs. The  $TreatedSector \times Post2015$  coefficient in the  $CNOwn*SOE$  regression is 0.001 and statistically significant, while the corresponding effect for  $CNOwn*Pvt$  is positive but insignificant. This pattern is consistent with MIC2025's design, which positioned SOEs and state-backed vehicles as the principal agents executing strategic foreign acquisitions in designated industries.

Additionally, the coefficients for the pre-policy interaction terms,  $TreatedSector \times Pre1$  and  $TreatedSector \times Pre2$ , are statistically insignificant across ownership specifications, consistent with parallel trends prior to MIC2025 and strengthening the causal interpretation of  $\beta_1$ .

Having established a policy-induced increase in Chinese ownership, particularly by SOEs, we next examine firm outcomes using the same DiD framework. In Panel B, we document a significant post-policy increase in R&D expenditure among firms in targeted sectors. Specifically, the coefficient on  $TreatedSector \times Post2015$  for R&D spending is 0.036, significant at the 5% level, indicating an average 3.6% higher increase compared to firms in non-targeted sectors. This outcome aligns with intensified technology development efforts after MIC2025-driven ownership increases. In contrast, the corresponding estimate for granted patents is -0.032 and significant at the 5% level, implying that higher R&D within our window does not translate into a measurable rise in patent output.

Turning to performance, ROA declined modestly for firms in treated sectors after 2015: the *TreatedSector*×*Post2015* coefficient is -0.393, significant at the 5% level, reflecting a 0.393 percentage point decrease in profitability relative to control firms. Conversely, fixed asset investments significantly accelerated, with the coefficient for log fixed assets at 0.046, significant at the 1% level, indicating a 4.6% higher increase in capital stock compared to non-targeted firms post-2015.

Supply-chain outcomes also move in the direction suggested by our cross-sectional evidence. The probability that a treated firm becomes a supplier to a Chinese entity increases by 3.2% (10% significance), while the probability of becoming a customer of a Chinese entity drops by 0.5% (statistically insignificant) relative to controls.

Across all outcome variables, the coefficients for pre-2015 interactions are statistically insignificant, affirming that no pre-existing differential trends existed between treated and control groups before the policy implementation. This provides confidence in attributing observed post-2015 changes specifically to the MIC2025 initiative and subsequent Chinese investments rather than continuation of prior trends.

## **5. Is China Unique?**

One important question in studying China's global investment is to understand whether China's investment patterns and impacts differ systematically from those of other major global economies. To assess this, we conduct parallel analyses using three comparison countries: the United States, Japan, and India. These countries are selected for distinct reasons. Most importantly, these are the top developed countries or emerging markets in terms of outward FDI stocks as of 2022. The United States, as the world's largest source of outbound investment, provides a benchmark for mature, market-driven global capital flows. Japan serves as a historical comparator, having pursued strategic overseas investment strategies during its industrial ascent in the 1960s

and 1970s. India offers a relevant point of comparison as another significant emerging economy, representing the increasing phenomenon of "Global South" investments.

[Insert Table 9 about here]

Table 9 replicates our baseline regression analyses, replacing Chinese ownership measures with those for the U.S., Japan, and India. The results reveal both commonalities and important differences across investor countries. For reference, Chinese ownership significantly boosts R&D expenditures but fails to convert these investments into higher patent outputs, indicating inefficiencies in innovation. Moreover, Chinese ownership, particularly by SOEs, leads to lower profitability, as evidenced in reduced return on assets. These findings suggest that Chinese investors, especially SOEs, prioritize objectives such as long-term control, technological advancement, or market penetration, often at the expense of short-term operational efficiency and profitability.

U.S. ownership, by contrast, tends to expand firm size through increased fixed asset investment while having limited effects on R&D and patent output and no systematic adverse impact on profitability. U.S. investors thus appear closer to a commercial, market-driven benchmark: they increase scale and capital intensity, but do not exhibit the same willingness as Chinese SOEs to trade off profitability for investment and innovation-related objectives.

Japan's outbound investment exhibits patterns that are qualitatively similar to China's in some dimensions, but generally less pronounced. Japanese controlling ownership is associated with higher R&D spending and some deterioration in profitability, without clear gains in patent productivity. This suggests that Japanese investors also emphasize technology and asset growth over short-run returns, but the magnitudes are smaller and the patterns are not driven by state ownership or industrial-policy shocks of the kind we document for China.

Indian investors, however, display a more conservative stance. We find no systematic increase in R&D or patent output and insignificant effects on profitability. This cautious investment

strategy primarily seeks market presence and expansion rather than aggressive technological upgrading or asset accumulation.

Overall, these comparisons indicate that China is not unique in every dimension: Japan shares a similar trade-off between investment and profitability, albeit in a milder form. What distinguishes China is the scale and intensity of this pattern and its state-led nature. SOE-led Chinese investments show larger increases in R&D and capital stock, sharper declines in profitability, and distinctive supply-chain effects. Relative to the more commercially oriented U.S. benchmark and the more cautious Indian pattern, China’s outward investment strategy stands out for relying heavily on state investors and accepting substantial short-run performance costs in pursuit of technology and asset-based growth.

## 6. Spillovers to Non-Targeted Firms

This section investigates whether Chinese ownership in an industry affects other firms in the same country and industry that are never acquired by Chinese investors. In particular, we ask whether an increase in Chinese controlling stakes in a given industry influences the R&D, innovation, and performance of non-target peer firms.

We estimate firm-level panel regressions for non-China-owned companies, regressing their outcomes (R&D, patenting, profitability, size, and supply-chain links) on the share of industry assets controlled by Chinese owners. For firm  $i$  in country  $c$ , industry  $s$ , and year  $t$ , the baseline specification is:

$$\begin{aligned} \text{Log}(1 + R\&D)_{i,c,s,t} = & \alpha + \beta_1 \times \Sigma\text{CN\_Owned\_Assets}/\Sigma\text{Assets}_{c,s,t} + \text{Blank\_R\&D}_{i,t} + \\ & \text{Control}_{i,t} + \alpha^{FE} + \varepsilon_{i,c,s,t}. \end{aligned} \quad (6)$$

The key independent variable  $\Sigma\text{CN\_Owned\_Assets}/\Sigma\text{Assets}_{c,s,t}$  measures the industry share of assets under Chinese control in country  $c$ , industry  $s$ , and year  $t$ . We restrict the sample to firms that are never directly Chinese-owned and include high-dimensional fixed effects such as country–

year and industry–year fixed effects, so that  $\beta_1$  captures how changes in Chinese presence within an industry are associated with adjustments in peers’ innovation policies, holding constant broader macro and industry trends.

[Insert Table 10 about here]

The regression results provide evidence of a significant crowding-out effect of Chinese ownership on peer firms' R&D investment. As reported in Panel A of Table 10, the coefficient on the Chinese ownership share is about  $-0.205$ , significant at the 5% level. Thus, as a larger fraction of industry assets is controlled by Chinese investors, non-target firms cut R&D spending by a meaningful amount. Notably, this negative spillover is specific to innovative investment: we do not find a correspondingly large effect on peers' capital expenditures, employment, or profitability at the firm level. One exception is *CNSupplier*: the coefficient on the Chinese asset share is  $-0.179$  and significant at the 5% level, suggesting that a larger Chinese ownership share leads to a lower likelihood of non-target firms becoming suppliers to Chinese entities.

We next examine whether these spillovers depend on the type of Chinese investor. Panel B of Table 10 decomposes the Chinese ownership share into SOE and private components. The negative R&D spillover is strongest under SOE presence: the coefficient on the SOE asset share is roughly  $-1.09$ , significant at the 5% level. The corresponding coefficient for private Chinese ownership, about  $-0.26$  (1% significance), is smaller but still economically and statistically meaningful. Thus, both SOE and private Chinese ownership are associated with reduced peer-firm R&D, but the crowding-out is much stronger in industries where SOEs hold larger stakes, roughly four times the magnitude of the private effect. In contrast, the negative spillover on *CNSupplier* is driven primarily by private Chinese ownership, echoing our earlier finding that Chinese acquisitions increase the probability of target firms supplying Chinese entities; peers are correspondingly less likely to occupy that supplier role.

[Insert Table 11 about here]

Despite these firm-level reductions in R&D, we find no evidence that Chinese ownership reduces aggregate innovation or performance at the country–industry level. In Table 11, we

aggregate outcomes to the country–industry–year level and regress industry-wide measures (average R&D, total patents, profitability, size) on the Chinese ownership share. The coefficient on Chinese control for the average R&D spending in the industry is small (around 0.07) and statistically insignificant. Similarly, we find no significant impact on industry-level patent counts, ROA, or firm size. Disaggregating by investor type in Panel B leads to the same conclusion: neither SOE nor private Chinese ownership significantly shifts aggregate R&D or performance indicators at the industry level.

Taken together, these results paint a nuanced picture. At the firm level, non-target peers, especially in industries with strong SOE presence, respond to Chinese entry by cutting R&D and, in some cases, losing supply-chain links to Chinese buyers. At the industry level, however, overall innovation and performance remain roughly unchanged. The most natural interpretation, consistent with our findings in Section 3, is that Chinese-owned firms compensate for peer cutbacks by increasing their own R&D and investment, so that the net effect on industry-wide innovation is close to zero.

From a policy perspective, this suggests that while Chinese ownership can generate negative spillovers for individual firms, these do not translate into broad declines in industry-level innovation or efficiency. Industry equilibrium appears to adjust such that aggregate outcomes in R&D, patenting, and profitability are largely preserved.

## **7. Spillbacks to Chinese Parents: Patent Evidence**

Our analysis so far shows that Chinese ownership raises R&D at targets and crowds out R&D at non-target peers, but does not generate clear gains in local or industry-level patent output. A natural question is whether some of the innovation benefit instead shows up at the Chinese parents themselves.

Measuring this is difficult because R&D for Chinese firms in Orbis is often reported only on a consolidated basis, so post-acquisition increases can mechanically reflect the target’s pre-existing R&D. To avoid this issue, we focus on granted patents and construct simple event-time

profiles around the year of a Chinese firm's first foreign acquisition. We consider large non-financial Chinese firms (including Hong Kong, and Macau) that ever own at least one large foreign subsidiary outside China, yielding about 1,100 firms and 8,700 firm-years. We then classify them by whether their first foreign target is located in a developed or non-developed host country. This design compares Chinese firms before and after their first foreign acquisition and contrasts spillbacks from developed versus non-developed destinations.

[Insert Figure 6 about here]

The patterns are striking. Panel A of Figure 6 shows that firms whose first foreign acquisition is in a developed country already exhibit higher patenting in the pre-event years and then experience a pronounced increase in granted patents at the time of the first deal: average #GrantedPatents (summed over years  $t+1$  to  $t+3$ ) rises by about 70%, from approximately 139 to 236, from the year before to the event year. In contrast, firms whose first acquisition is in a non-developed country display a much flatter profile: patenting is lower throughout and shows only modest changes around the first acquisition. This suggests that entering developed markets via acquisitions is associated with a discrete acceleration in the Chinese parent's total patenting, whereas expansions into non-developed markets have a limited impact.

Panels B and C introduce the SOE-private split. Among SOEs, the contrast between developed and non-developed targets is particularly striking. When an SOE's first foreign acquisition is in a developed country, average granted patents increase by approximately 2.8 times, from about 94 to 265, between event years  $-1$  and  $0$ . Over the same window, SOEs whose first foreign expansion is into non-developed countries show almost no change, with grants rising only from 94 to 96. For private firms, the patterns are more muted but broadly consistent with this story: first acquisitions in developed countries are associated with a sizeable, though smaller, increase in grants (from about 166 to 215), whereas first acquisitions in non-developed countries produce only a modest rise (from about 13 to 20).

These unconditional patterns, subject to the measurement caveats above, suggest that strategic outward FDI into developed economies is associated with stronger patent growth at the Chinese

parents, especially for SOEs. In other words, some of the returns to Chinese acquisitions may appear as home-country innovation rather than as higher patenting in the acquired firms. This spillback mechanism offers a plausible reconciliation of our earlier results: Chinese ownership raises R&D at targets and reallocates innovative activity away from non-target peers, but the net gains in patenting may largely be harvested in the parents' own patent portfolios rather than in host-country firms.

## **8. Conclusions**

This paper provides a comprehensive, global, firm-level analysis of China's corporate ownership network and its real effects on acquired firms and their peers. Using reconstructed global ultimate owners data, we show that relying on official FDI statistics alone substantially understates China's presence in overseas investments and misattributes much of it to tax-haven intermediaries. Looking through these structures reveals China as one of the world's largest outward investors, with a sizeable and highly concentrated footprint in advanced manufacturing, information communications and technologies, and professional and scientific services.

We document three main sets of findings. First, Chinese investors not only target firms with high R&D spending, but also significantly increase target firms' R&D after acquiring them or holding the controlling stakes. However, these investment increases do not translate into commensurate gains in patent output or profitability: patent counts rise only modestly and in limited settings, while ROA typically declines, especially under SOE control.

Second, Chinese ownership systematically reshapes acquired firms' positions in global supply chains and has measurable spillovers to non-target firms. Acquisitions by private Chinese investors significantly increase the probability that targets become suppliers to Chinese entities, while SOE acquisitions have little or even negative net effect on supply-chain integration. For firms that are never acquired by China, a higher Chinese ownership share in their country–industry is associated with lower R&D spending and, in some cases, a reduced likelihood of serving as suppliers to Chinese firms. These crowding-out effects on peers' R&D are strongest in industries where SOEs

hold substantial stakes. Yet when we aggregate to the country–industry level, we do not observe a decline in total R&D, patenting, or profitability. Complementary descriptive evidence suggests that part of the innovation benefit may also materialize as “spillbacks” to Chinese parents, particularly SOEs with outbound acquisitions in developed economies.

Third, our comparative analysis shows that China’s outward investment is not representative of other major investors, but neither is it entirely unique.

Our findings carry several implications. On the measurement side, we show that relying on official FDI statistics alone substantially understates China’s presence in global corporate assets and misattributes much of it to tax-haven intermediaries. Tracing ultimate owners and distinguishing ownership from control are essential for understanding where Chinese capital actually resides and which firms it influences. On the real-effects side, our results suggest that foreign state ownership can raise R&D and capital investment, but does not automatically deliver proportional gains in measurable innovation or profitability. Host-country policymakers concerned with national security, technological dependence, or competitive distortions may legitimately focus on SOE-led acquisitions in strategic sectors, while recognizing that the aggregate impact on innovation is subtle: innovative activity is reallocated within industries and across borders rather than simply expanded. By bringing together global ownership networks, firm-level outcomes, and policy shocks, we hope this paper provides a foundation for a more evidence-based debate about the economic and strategic implications of China’s global rise.

## REFERENCES

- Aguiar, M., & Gopinath, G. (2005). Fire-sale foreign direct investment and liquidity crises. *Review of Economics and Statistics*, 87(3), 439-452.
- Akcigit, U., Ates, S. T., Lerner, J., Townsend, R. R., & Zhestkova, Y. (2024). Fencing off Silicon Valley: Cross-border venture capital and technology spillovers. *Journal of Monetary Economics*, 141, 14-39.
- Alimov, A. (2015). Labor market regulations and cross-border mergers and acquisitions. *Journal of International Business Studies*, 46(8), 984-1009.
- Allen, F., Cai, J., Gu, X., Qian, J., Zhao, L., & Zhu, W. (2024). Centralization or decentralization? The evolution of state-ownership in China. *The Evolution of State-Ownership in China (October 20, 2024)*.
- Alquist, R., Mukherjee, R., & Tesar, L. L. (2014). *Liquidity-driven FDI* (No. 17/2014). Graduate Institute of International and Development Studies Working Paper.
- Amiti, M., Redding, S. J., & Weinstein, D. E. (2019). The impact of the 2018 tariffs on prices and welfare. *Journal of Economic Perspectives*, 33(4), 187-210.
- Bai, J., Barwick, P. J., Cao, S., & Li, S. (2020). *Quid pro quo, knowledge spillover, and industrial quality upgrading: Evidence from the Chinese auto industry* (No. w27644). National Bureau of Economic Research.
- Baker, M., Foley, C. F., & Wurgler, J. (2008). Multinationals as arbitrageurs: The effect of stock market valuations on foreign direct investment. *The Review of Financial Studies*, 22(1), 337-369.
- Bena, J., & Li, K. (2014). Corporate innovations and mergers and acquisitions. *The Journal of Finance*, 69(5), 1923-1960.
- Biswas, A. K., von Hagen, J., & Sarkar, S. (2022). FDI Mismatch, trade Mis-reporting, and hidden capital Movements: The USA-China case. *Journal of International Money and Finance*, 120, 102534.
- Blalock, G., & Gertler, P. J. (2008). Welfare gains from foreign direct investment through technology transfer to local suppliers. *Journal of International Economics*, 74(2), 402-421.
- Bris, A., & Cabolis, C. (2008). The value of investor protection: Firm evidence from cross-border mergers. *The review of financial studies*, 21(2), 605-648.
- Buckley, P. J., Clegg, L. J., Cross, A. R., Liu, X., Voss, H., & Zheng, P. (2015). The Determinants of Chinese Outward Foreign Direct Investment. In *International Business Strategy* (pp. 574-600).

- Brown, M., & Singh, P. (2018). China's technology transfer strategy: How Chinese investments in emerging technology enable a strategic competitor to access the crown jewels of US innovation. *Defense Innovation Unit Experimental*, 3, 17-21.
- Chari, A., Ouimet, P. P., & Tesar, L. L. (2010). The value of control in emerging markets. *The Review of Financial Studies*, 23(4), 1741-1770.
- Chen, J., & Roth, J. (2024). Logs with zeros? Some problems and solutions. *The Quarterly Journal of Economics*, 139(2), 891-936.
- Clayton, C., Coppola, A., Dos Santos, A., Maggiori, M., & Schreger, J. (2023). China in tax havens. In *AEA Papers and Proceedings* (Vol. 113, pp. 114-119).
- Cohn, J. B., Liu, Z., & Wardlaw, M. I. (2022). Count (and count-like) data in finance. *Journal of Financial Economics*, 146(2), 529-551.
- Coppola, A., Maggiori, M., Neiman, B., & Schreger, J. (2021). Redrawing the map of global capital flows: The role of cross-border financing and tax havens. *The Quarterly Journal of Economics*, 136(3), 1499-1556.
- Di Giovanni, J. (2005). What drives capital flows? The case of cross-border M&A activity and financial deepening. *Journal of International Economics*, 65(1), 127-149.
- Erel, I., Liao, R. C., & Weisbach, M. S. (2012). Determinants of cross-border mergers and acquisitions. *The Journal of Finance*, 67(3), 1045-1082.
- Fosfuri, A., Motta, M., & Rønde, T. (2001). Foreign Direct Investment and Spillovers through Workers' Mobility. *Journal of International Economics*, 53(1), 205-222.
- Froot, K. A. (1991). Japanese foreign direct investment.
- Graham, E. M., & Krugman, P. R. (1991). *Foreign direct investment in the United States*. Peterson Institute.
- Hanemann, T., Rosen, D. H., Gao, C., & Lysenko, A. (2021). Two-Way Street: 2021 Update on US-China Investment Trends. *The US-China Investment Project Report, New York: Rhodium Group, National Committee on US-China Relations*.
- Han, P., Jiang, W., & Mei, D. (2024). Mapping US-China technology decoupling: policies, innovation, and firm performance. *Management Science*, 70(12), 8386-8413.

- Harrison, A., & Rodriguez-Clare, A. (2009). *Trade, foreign investment, and industrial policies for developing countries* (No. w15261). National Bureau of Economic Research.
- Huang, Y. (2016). Understanding China's Belt & Road initiative: motivation, framework and assessment. *China Economic Review*, 40, 314-321.
- Huizinga, H. P., & Voget, J. (2009). International taxation and the direction and volume of cross-border M&As. *The Journal of Finance*, 64(3), 1217-1249.
- Javorcik, B. S. (2004). Does foreign direct investment increase the productivity of domestic firms? In search of spillovers through backward linkages. *American Economic Review*, 94(3), 605-627.
- Kalemli-Özcan, Ş., Sørensen, B. E., Villegas-Sanchez, C., Volosovych, V., & Yeşiltaş, S. (2024). How to construct nationally representative firm-level data from the Orbis Global Database: New facts on SMEs and aggregate implications for industry concentration. *American Economic Journal: Macroeconomics*, 16(2), 353-374.
- Karolyi, G. Andrew, and Alvaro G. Taboada. "Regulatory arbitrage and cross-border bank acquisitions." *Journal of Finance* 70(6) (2015): 2395-2450.
- Karolyi, G. A., & Taboada, A. G. (2015). Regulatory arbitrage and cross-border bank acquisitions. *The Journal of Finance*, 70(6), 2395-2450.
- Koh, P. S., & Reeb, D. M. (2015). Missing R&D. *Journal of Accounting and Economics*, 60(1), 73-94.
- Koh, P. S., Reeb, D. M., & Zhao, W. (2018). CEO confidence and unreported R&D. *Management Science*, 64(12), 5725-5747.
- Koh, P. S., Reeb, D. M., Sojli, E., Tham, W. W., & Wang, W. (2022). Deleting unreported innovation. *Journal of Financial and Quantitative Analysis*, 57(6), 2324-2354.
- Kong, D., Zhang, B., & Zhang, J. (2022). Higher education and corporate innovation. *Journal of Corporate Finance*, 72, 102165.
- Lane, P. R., & Milesi-Ferretti, G. M. (2007). The external wealth of nations mark II: Revised and extended estimates of foreign assets and liabilities, 1970-2004. *Journal of International Economics*, 73(2), 223-250.
- Liu, E., & Ma, S. (2021). *Innovation networks and R&D allocation* (No. w29607). National Bureau of Economic Research.

- Leuz, C., Lins, K. V., & Warnock, F. E. (2009). Do foreigners invest less in poorly governed firms?. *The Review of Financial Studies*, 22(8), 3245-3285.
- Manova, K., Wei, S. J., & Zhang, Z. (2015). Firm exports and multinational activity under credit constraints. *Review of economics and statistics*, 97(3), 574-588.
- Meggison, W. L., & Netter, J. M. (2001). From state to market: A survey of empirical studies on privatization. *Journal of Economic Literature*, 39(2), 321-389.
- Morck, R., Yeung, B., & Zhao, M. (2008). Perspectives on China's Outward Foreign Direct Investment. *Journal of International Business Studies*, 39(3), 337-350.
- Moshirian, F., Tian, X., Zhang, B., & Zhang, W. (2021). Stock market liberalization and innovation. *Journal of Financial Economics*, 139(3), 985-1014.
- Musacchio, A., & Lazzarini, S. G. (2014). *Reinventing state capitalism: Leviathan in business, Brazil and beyond*. Harvard University Press.
- OECD (2023), OECD Inter-Country Input-Output Database, <http://oe.cd/icio>.
- Ru, H., & Yang, E. (2024). Government Credit and International Trade. *Journal of Financial and Quantitative Analysis*, 1-33.
- Rossi, S., & Volpin, P. F. (2004). Cross-country determinants of mergers and acquisitions. *Journal of Financial Economics*, 74(2), 277-304.
- Song, Z., Storesletten, K., & Zilibotti, F. (2011). Growing like China. *American Economic Review*, 101(1), 196-233.
- Wang, J., & Wang, X. (2015). Benefits of foreign ownership: Evidence from foreign direct investment in China. *Journal of International Economics*, 97(2), 325-338.
- Yeaple, S. R. (2003). The Role of Skill Endowments in the Structure of US Outward Foreign Direct Investment. *Review of Economics and Statistics*, 85(3), 726-734.

**Table 1. China's Global Ownership**

Notes: This table presents descriptive statistics on China's global ownership. The data includes non-financial, non-Chinese "Very Large" firms from Orbis (2012-2021). Firms based in mainland China, Hong Kong, Macau, or with "golden shares" are excluded. Chinese ownership with control (CNOwn with control) identifies firms whose largest direct shareholders with at least 10% ownership or ultimate shareholders (UO10) are Chinese entities. Assets are winsorized at the 1st and 99th percentiles. Panels A and B rank countries by the percentage and absolute value (USD billions) of assets owned by Chinese shareholders, including mean, standard deviation, minimum, maximum, and growth rates between early (2012-2014) and late (2019-2021) periods, respectively. Panels C and D present the same statistics at the industry level, ranking industries by the percentage and absolute value of assets owned by Chinese shareholders, respectively.

*Panel A. Top 5 Countries in terms of % Assets Owned by CN*

ISO	Country	Mean	STD	Min	Max
KY	Cayman	45.95%	10.69%	24.50%	57.98%
BM	Bermuda	22.86%	15.92%	2.52%	41.47%
VG	British Virgin Islands	18.70%	7.95%	7.61%	35.45%
PT	Portugal	13.79%	5.91%	0.06%	17.85%
SG	Singapore	10.14%	1.72%	7.36%	12.28%

*Panel B. Top 5 Countries in terms of Assets Owned by CN (\$Bil USD)*

ISO	Country	2012-2021	2012-2014	2019-2021	Growth
KY	Cayman	421	121	781	543%
GB	UK	383	304	492	62%
AU	Australia	150	89	132	48%
SG	Singapore	122	60	203	239%
BM	Bermuda	117	13	193	1414%

*Panel C. Top 10 Industries in terms of % Assets Owned by CN*

NACE	Sector	Mean	STD	Min	Max
P	Education	4.91%	5.04%	0.87%	12.54%
I	Accom and food service	4.44%	3.01%	1.24%	10.68%
B	Mining and quarrying	4.26%	1.58%	1.75%	7.18%
H	Transportation and storage	3.11%	0.65%	2.08%	4.07%
J	Information and communication	3.04%	1.31%	1.25%	4.81%
D	Energy & AC Supply	2.93%	0.82%	1.12%	3.75%
M	Prof. Sci. & Tech.	2.88%	0.63%	1.94%	3.73%
L	Real estate activities	2.86%	1.92%	0.51%	6.16%
A	Agriculture, forestry and fishing	2.78%	0.70%	1.77%	4.27%
F	Construction	2.76%	1.22%	0.97%	4.28%

*Panel D. Top 10 Industries in terms of Assets Owned by CN (\$Bil USD)*

NACE	Sector	2012-2021	2012-2014	2019-2021	Growth
C	Manufacturing	398	155	616	297%
M	Prof. Sci. & Tech.	263	185	357	93%
D	Energy & AC Supply	198	120	259	115%
B	Mining and quarrying	186	128	186	45%
J	Information and communication	176	74	297	301%
G	Trade & Vehicle Repair	169	64	259	303%
H	Transportation and storage	140	97	188	93%
L	Real estate activities	132	28	266	850%
N	Accom and food service	104	29	183	539%
F	Construction	83	32	125	292%

**Table 2. Summary Statistics of Variables**

Notes: This table presents descriptive statistics on key variables used in the analysis, covering mean, median, standard deviation, 25th percentile (Q1), and 75th percentile (Q3) distributions. The data includes non-financial, non-Chinese "Very Large" firms from Orbis (2012-2021). Firms based in mainland China, Hong Kong, Macau, or with "golden shares" are excluded. CNOwn identifies firms whose direct or ultimate shareholders (UO10) are Chinese entities; CNOwn\*SOE identifies direct or ultimate ownership by Chinese government entities (UO25). With control, Chinese entities must be the largest direct shareholders with at least 10% ownership or ultimate shareholders. The narrow definition includes entities in mainland China, while the broad definition includes entities in mainland China, Hong Kong, Macau, or with "golden shares." Panels A and B report statistics for the entire sample, while Panel C focuses on firms with and without Chinese ownership (with control and broad definition). Panel D presents country-sector-level characteristics, with sectors defined by OECD-ISIC classifications. Variables are detailed in Table A1 of the Appendix.

*Panel A. Orbis Ownership*

Variables	N	Mean	Median	STD	P25	P75
CNOwn, Control, Broad	1,166,282	2.0%	0.0%	14.0%	0.0%	0.0%
CNOwn, Control, Narrow	1,166,282	1.1%	0.0%	10.3%	0.0%	0.0%
CNOwn, Ownership, Broad	1,166,282	2.5%	0.0%	15.6%	0.0%	0.0%
CNOwn, Ownership, Narrow	1,166,282	1.3%	0.0%	11.1%	0.0%	0.0%

*Panel B. Orbis Fundamentals & Orbis Patents*

Variables	N	Mean	Median	STD	P25	P75
Log(1+R&D), Dropped if Missing	203,776	6.0	0.0	7.4	0.0	14.0
Log(1+R&D), R&D=0 if Missing	1,166,282	1.0	0.0	3.8	0.0	0.0
Blank_R&D	1,166,282	0.8	1.0	0.4	1.0	1.0
#GrantedPatents	1,166,282	5.4	0.0	120.7	0.0	0.0
Log(1+Assets)	1,166,282	18.4	18.6	2.2	17.4	19.7
Log(1+Fixed)	1,165,446	16.7	17.4	4.0	15.6	19.1
Log(1+Debts)	1,139,701	16.1	17.0	4.3	15.2	18.4
ROA Using P/L before tax (%)	1,089,540	3.9	3.5	14.1	0.0	9.2
Log(1+Empl)	779,321	5.2	5.5	1.8	4.0	6.7
Log(1+OpeRev)	1,060,866	17.5	18.5	3.9	16.8	19.4
Log(1+CostEmpl)	731,841	15.7	16.0	2.2	14.6	17.2
Log(1+Sales)	812,460	17.7	18.5	2.3	16.7	19.4
CashFlow/Assets	801,811	0.0	0.1	0.2	0.0	0.1
P/L/Assets	1,102,272	0.0	0.0	0.3	0.0	0.1
HHI	1,166,282	0.2	0.1	3.7	0.0	0.2
CNCustomer	96,882	0.1	0.0	0.3	0.0	0.0
CNSupplier	71,840	0.1	0.0	0.3	0.0	0.0
Customer	96,882	0.8	1.0	0.4	0.0	1.0
Supplier	71,840	0.7	1.0	0.4	0.0	1.0

*Panel C. CNOwn = 1 vs. CNOwn = 0*

	CNOwn=1			CNOwn=0		
	Mean	Median	Std	Mean	Median	Std
Log(1+R&D), Dropped if Missing	5.7	0.0	7.5	6.0	0.0	7.4
Log(1+R&D), =0 if Missing	1.9	0.0	5.1	1.0	0.0	3.8
Blank_R&D	0.7	1.0	0.5	0.8	1.0	0.4
#GrantedPatents	4.2	0.0	64.9	5.4	0.0	121.8
Log(1+Assets)	18.7	18.8	2.2	18.4	18.6	2.2
Log(1+Fixed)	16.7	17.6	4.4	16.7	17.4	4.0
Log(1+Debts)	15.6	17.1	5.4	16.1	17.0	4.2
ROA Using P/L before tax (%)	0.6	2.3	16.7	4.0	3.5	14.0
Log(1+Empl)	5.4	5.6	1.8	5.2	5.5	1.8
Log(1+OpeRev)	17.5	18.6	4.3	17.5	18.5	3.9

Log(1+CostEmpl)	15.8	16.0	2.1	15.7	16.0	2.2
Log(1+Sales)	18.1	18.6	2.2	17.7	18.5	2.3
CashFlow/Assets	0.0	0.0	0.3	0.0	0.1	0.2
P/L/Assets	-0.1	0.0	0.4	0.0	0.0	0.3
HHI	0.3	0.1	0.3	0.2	0.1	3.8
CNCustomer	0.3	0.0	0.4	0.1	0.0	0.3
CNSupplier	0.2	0.0	0.4	0.1	0.0	0.3
Customer	0.8	1.0	0.4	0.8	1.0	0.4
Supplier	0.7	1.0	0.5	0.7	1.0	0.4

*Panel D: Country-(OECD-ISIC)Sector Characteristics, Full Sample*

Variables	N	Mean	Median	STD	P25	P75
ln(1+ $\Sigma$ CNOwn*Assets), Control, Broad	31,035	4.4	0.0	8.3	0.0	0.0
ln(1+ $\Sigma$ CNOwn*Assets), Control, Narrow	31,035	3.7	0.0	7.8	0.0	0.0
ln(1+ $\Sigma$ CNOwn*Assets), Ownership, Broad	31,035	2.9	0.0	7.0	0.0	0.0
ln(1+ $\Sigma$ CNOwn*Assets), Ownership, Narrow	31,035	2.5	0.0	6.7	0.0	0.0
ln(1+ $\Sigma$ CNOwn*Pvt*Assets), Control, Broad	31,035	4.2	0.0	8.2	0.0	0.0
ln(1+ $\Sigma$ CNOwn*Pvt*Assets), Control, Narrow	31,035	3.5	0.0	7.6	0.0	0.0
ln(1+ $\Sigma$ CNOwn*Pvt*Assets), Ownership, Broad	31,035	2.5	0.0	6.6	0.0	0.0
ln(1+ $\Sigma$ CNOwn*Pvt*Assets), Ownership, Narrow	31,035	2.2	0.0	6.2	0.0	0.0
ln(1+ $\Sigma$ CNOwn*SOE*Assets), Control, Broad	31,035	0.8	0.0	4.0	0.0	0.0
ln(1+ $\Sigma$ CNOwn*SOE*Assets), Control, Narrow	31,035	0.8	0.0	4.0	0.0	0.0
ln(1+ $\Sigma$ CNOwn*SOE*Assets), Ownership, Broad	31,035	0.8	0.0	4.0	0.0	0.0
ln(1+ $\Sigma$ CNOwn*SOE*Assets), Ownership, Narrow	31,035	0.8	0.0	4.0	0.0	0.0
Log(1+ $\Sigma$ Assets)	31,035	21.2	21.4	2.8	19.5	23.3
Log(1+ $\Sigma$ Fixed)	31,035	20.5	20.8	3.3	18.8	22.8
Log(1+ $\Sigma$ Debts)	31,035	19.3	20.0	4.4	17.8	22.0
HHI	31,035	0.5	0.4	0.4	0.1	0.9
Log(1+ $\Sigma$ R&D)	31,035	3.0	0.0	6.5	0.0	0.0
Log(1+ $\Sigma$ Sales)	31,035	18.3	20.3	6.2	17.9	21.6
Log(1+ $\Sigma$ OpeRev)	31,035	20.2	20.8	4.1	18.8	22.7
Log(1+ $\Sigma$ EMPL)	31,035	6.1	7.5	3.9	2.1	8.9
II_CN/II	21,359	0.0	0.0	0.0	0.0	0.0
IO_CN/IO	21,359	0.0	0.0	0.0	0.0	0.0
Nature_Resources_Rent_Country	30,164	3.7	1.0	7.3	0.2	3.5
Agriculture, hunting, forestry (indicator)	31,035	0.0	0.0	0.2	0.0	0.0
Mining&quarrying - energy (indicator)	31,035	0.0	0.0	0.1	0.0	0.0
Mining&quarrying - non-energy (indicator)	31,035	0.0	0.0	0.2	0.0	0.0
Mining support service activities (indicator)	31,035	0.0	0.0	0.1	0.0	0.0
Blank R&D	31,035	0.5	1.0	0.5	0.0	1.0

**Table 3. Targets of China's Global Ownership**

Notes: This table presents OLS regression results analyzing the determinants of China's global ownership. The data includes non-financial, non-Chinese "Very Large" firms from Orbis. Firms based in mainland China, Hong Kong, Macau, or with "golden shares" are excluded. The analysis is restricted to firms in sectors with available OECD input-output data and World Bank data on natural resource rents. CNOwn identifies firms whose direct or ultimate shareholders (UO10) are Chinese entities (mainland China, Hong Kong, Macau, or with "golden shares"); CNOwn\*SOE identifies direct or ultimate ownership by Chinese government entities (UO25); CNOwn\*Pvt denotes private Chinese ownership, indicating non-SOE Chinese ownership. "CNOwn\*Assets," "CNOwn\*SOE\*Assets," and "CNOwn\*Pvt\*Assets" represent firm assets weighted by ownership categories: all Chinese entities, state-owned enterprises, and private firms, respectively. Assets are winsorized at the 1st and 99th percentiles and log-transformed after aggregation at the country-sector level. Control variables are detailed in Table A1 of the Appendix. The sample covers the period from 2012 to 2021. Standard errors clustered at the country-sector level are in parentheses. Significance levels: \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

	Ownership (Broad)					
	Log(1+ $\Sigma$ CNOwn*Assets)		Log(1+ $\Sigma$ CNOwn*Pvt*Assets)		Log(1+ $\Sigma$ CNOwn*SOE*Assets)	
Log(1+ $\Sigma$ R&D), RD = 0 if Missing	0.123*** (0.023)	0.087*** (0.022)	0.128*** (0.023)	0.092*** (0.022)	0.028* (0.014)	0.023* (0.014)
Log(1+ $\Sigma$ Assets)	1.283*** (0.098)	1.053*** (0.092)	1.222*** (0.096)	1.014*** (0.090)	0.474*** (0.054)	0.336*** (0.049)
Log(1+ $\Sigma$ Fixed)	-0.245*** (0.056)	-0.161*** (0.050)	-0.235*** (0.053)	-0.156*** (0.048)	-0.118*** (0.027)	-0.068*** (0.022)
Log(1+ $\Sigma$ Debts)	0.040 (0.034)	0.017 (0.034)	0.028 (0.034)	0.010 (0.033)	0.017 (0.011)	-0.002 (0.011)
Log(1+ $\Sigma$ Empl)	0.205*** (0.036)	0.127*** (0.036)	0.203*** (0.035)	0.123*** (0.035)	0.028 (0.018)	0.007 (0.017)
II_CN/II	15.066*** (4.141)	5.797 (5.649)	16.047*** (4.106)	6.034 (5.622)	-3.565** (1.534)	-2.323 (2.137)
IO_CN/IO	10.535*** (2.631)	10.877*** (2.889)	9.531*** (2.597)	10.367*** (2.817)	6.043*** (2.160)	6.367** (2.620)
Nature_Resources_Rent_Country	0.149*** (0.022)	0.147*** (0.021)	0.134*** (0.021)	0.132*** (0.020)	0.052*** (0.012)	0.051*** (0.012)
Agriculture, hunting, forestry (indicator)	-0.235 (0.557)		-0.536 (0.544)		0.411 (0.265)	
Mining&quarrying - energy (indicator)	0.921 (0.827)		0.331 (0.766)		1.201* (0.641)	
Mining&quarrying - non-energy (indicator)	0.168 (0.817)		0.215 (0.797)		0.057 (0.474)	
Mining support service activities (indicator)	0.493 (0.749)		0.124 (0.710)		0.578 (0.450)	
HHI	-12.589*** (1.212)	-10.730*** (1.151)	-11.727*** (1.187)	-10.024*** (1.122)	-2.988*** (0.715)	-1.901*** (0.698)
HHI*HHI	11.351*** (1.049)	9.991*** (0.993)	10.627*** (1.028)	9.394*** (0.970)	3.049*** (0.611)	2.156*** (0.582)
Blank_R&D	-1.157*** (0.292)	-0.818*** (0.277)	-1.242*** (0.284)	-0.870*** (0.268)	-0.062 (0.161)	-0.017 (0.158)
Constant	-19.234*** (1.394)	-15.194*** (1.389)	-18.138*** (1.360)	-14.557*** (1.351)	-7.473*** (0.833)	-5.204*** (0.806)
Country FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Sector FE	No	Yes	No	Yes	No	Yes
Observations	21,016	21,016	21,016	21,016	21,016	21,016
R-squared	0.394	0.425	0.385	0.417	0.148	0.179

**Table 4. China's Ownership and Innovation**

Note: This table presents OLS regression analyses examining the relationship between Chinese ownership and firm-level innovation, measured by the logarithm of R&D expenditures. Missing R&D expenditures are treated as zero and indicated by Blank\_R&D. CNOwn identifies firms whose direct or ultimate shareholders (UO10) are Chinese entities; CNOwn\*SOE identifies direct or ultimate ownership by Chinese government entities (UO25). With control, Chinese entities must be the largest direct shareholders with at least 10% ownership or ultimate shareholders. The narrow definition includes entities in mainland China, while the broad definition includes entities in mainland China, Hong Kong, Macau, or with "golden shares." Control variables are detailed in Table A1 of the Appendix. The sample covers the period from 2012 to 2021. Standard errors clustered at the firm level are in parentheses. Significance levels: \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

<i>Panel A: Overall</i>	<i>Log(1+R&amp;D)</i>							
	Ownership				Control			
	Narrow		Broad		Narrow		Broad	
CNOwn	0.068** (0.030)	0.102* (0.054)	0.040* (0.021)	0.067* (0.040)	0.080** (0.032)	0.162*** (0.060)	0.047* (0.024)	0.087* (0.049)
Log(1+Assets)		0.067*** (0.010)		0.067*** (0.010)		0.067*** (0.010)		0.067*** (0.010)
Log(1+Fixed)		0.007* (0.004)		0.007* (0.004)		0.007* (0.004)		0.007* (0.004)
Log(1+Debts)		0.001 (0.002)		0.001 (0.002)		0.001 (0.002)		0.001 (0.002)
Log(1+Sales)		0.022*** (0.007)		0.022*** (0.007)		0.022*** (0.007)		0.022*** (0.007)
Log(1+Empl)		0.060*** (0.009)		0.060*** (0.009)		0.060*** (0.009)		0.060*** (0.009)
Log(1+OpeRev)		0.026*** (0.006)		0.026*** (0.006)		0.026*** (0.006)		0.026*** (0.006)
ROA		-0.002*** (0.001)		-0.002*** (0.001)		-0.002*** (0.001)		-0.002*** (0.001)
P/L/Assets		0.018 (0.102)		0.018 (0.102)		0.018 (0.102)		0.019 (0.102)
CashFlow/Assets		-0.092 (0.096)		-0.092 (0.096)		-0.092 (0.096)		-0.092 (0.096)
HHI		-0.094 (0.062)		-0.094 (0.062)		-0.092 (0.062)		-0.094 (0.062)
HHI*HHI		0.000 (0.000)		0.000 (0.000)		0.000 (0.000)		0.000 (0.000)
Blank_R&D	-6.393*** (0.070)	-7.936*** (0.125)	-6.393*** (0.070)	-7.936*** (0.125)	-6.393*** (0.070)	-7.936*** (0.125)	-6.393*** (0.070)	-7.936*** (0.125)
Constant	6.323*** (0.058)	5.477*** (0.189)	6.323*** (0.058)	5.476*** (0.189)	6.323*** (0.058)	5.476*** (0.189)	6.323*** (0.058)	5.475*** (0.189)
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1,156,441	437,885	1,156,441	437,885	1,156,441	437,885	1,156,441	437,885
R-squared	0.931	0.968	0.931	0.968	0.931	0.968	0.931	0.968

Panel B: SOE versus Private

	Ownership (Broad)			Control (Broad)		
	All	Developed	Emerging	All	Developed	Emerging
CNOwn	0.048 (0.041)	-0.062 (0.040)	0.107 (0.106)	0.064 (0.052)	-0.097** (0.040)	0.240 (0.171)
CNOwn*SOE	0.286** (0.130)	0.169* (0.088)	0.061 (0.114)	0.274** (0.132)	0.194** (0.088)	-0.024 (0.152)
Log(1+Assets)	0.067*** (0.010)	0.064*** (0.010)	0.142** (0.063)	0.067*** (0.010)	0.064*** (0.010)	0.142** (0.063)
Log(1+Fixed)	0.007* (0.004)	0.006 (0.004)	-0.037 (0.032)	0.007* (0.004)	0.006 (0.004)	-0.037 (0.032)
Log(1+Debts)	0.001 (0.002)	-0.000 (0.002)	0.002 (0.017)	0.001 (0.002)	-0.000 (0.002)	0.002 (0.017)
Log(1+Sales)	0.022*** (0.007)	0.011 (0.007)	0.091 (0.060)	0.022*** (0.007)	0.011 (0.007)	0.091 (0.060)
Log(1+Empl)	0.060*** (0.009)	0.054*** (0.009)	0.123*** (0.046)	0.060*** (0.009)	0.054*** (0.009)	0.122*** (0.046)
Log(1+OpeRev)	0.026*** (0.006)	0.038*** (0.006)	-0.052 (0.048)	0.026*** (0.006)	0.038*** (0.006)	-0.052 (0.048)
ROA	-0.002*** (0.001)	-0.002*** (0.001)	0.005 (0.006)	-0.002*** (0.001)	-0.002*** (0.001)	0.005 (0.006)
P/L/Assets	0.018 (0.102)	0.080 (0.111)	-1.719* (0.980)	0.018 (0.102)	0.080 (0.112)	-1.724* (0.980)
CashFlow/Assets	-0.091 (0.096)	-0.169* (0.096)	0.625 (0.805)	-0.091 (0.096)	-0.169* (0.096)	0.631 (0.805)
HHI	-0.094 (0.062)	0.022 (0.064)	-0.184 (0.233)	-0.094 (0.062)	0.022 (0.064)	-0.185 (0.233)
HHI*HHI	0.000 (0.000)	-0.000 (0.000)	0.035 (0.039)	0.000 (0.000)	-0.000 (0.000)	0.035 (0.039)
Blank_R&D	-7.936*** (0.125)	-8.104*** (0.126)	-4.507*** (0.861)	-7.936*** (0.125)	-8.104*** (0.126)	-4.507*** (0.861)
Constant	5.477*** (0.189)	6.193*** (0.197)	-1.764** (0.857)	5.476*** (0.189)	6.193*** (0.197)	-1.771** (0.857)
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	437,885	386,060	26,685	437,885	386,060	26,685
R-squared	0.968	0.974	0.897	0.968	0.974	0.897

**Table 5. China's Ownership and Granted Patents**

Notes: This table presents Poisson regression analyses examining the relationship between Chinese ownership and target firms' patenting activity, specifically measuring the number of patents applied for by the firm from year t+1 to t+3 that are eventually granted. To prevent double-counting, duplicate patent applications across multiple jurisdictions are consolidated into a single application, and patents applied for by multiple firms are proportionally attributed among the applicants. CNOwn identifies firms whose direct or ultimate shareholders (UO10) are Chinese entities; CNOwn\*SOE identifies direct or ultimate ownership by Chinese government entities (UO25). With control, Chinese entities must be the largest direct shareholders with at least 10% ownership or ultimate shareholders. The narrow definition includes entities in mainland China, while the broad definition includes entities in mainland China, Hong Kong, Macau, or with "golden shares." Control variables are detailed in Table A1 of the Appendix. The sample covers the period from 2012 to 2021. Standard errors clustered at the firm level are in parentheses. Significance levels: \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

	<i>Panel A: Overall</i>							
	Ownership				#GrantedPatents			
	Narrow		Broad		Narrow		Control	
CNOwn	0.066 (0.058)	-0.039 (0.071)	0.058 (0.040)	0.016 (0.046)	0.109** (0.054)	-0.011 (0.065)	0.141*** (0.053)	0.076 (0.071)
Log(1+Assets)		0.263*** (0.068)		0.262*** (0.068)		0.263*** (0.068)		0.262*** (0.068)
Log(1+Fixed)		0.058 (0.049)		0.058 (0.049)		0.058 (0.049)		0.058 (0.049)
Log(1+Debts)		0.004 (0.006)		0.004 (0.006)		0.004 (0.006)		0.004 (0.006)
Log(1+Sales)		-0.011 (0.021)		-0.012 (0.021)		-0.012 (0.021)		-0.012 (0.021)
Log(1+Empl)		-0.003 (0.026)		-0.003 (0.026)		-0.003 (0.026)		-0.003 (0.026)
Log(1+OpeRev)		0.029* (0.017)		0.029* (0.017)		0.029* (0.017)		0.029* (0.017)
ROA		0.006*** (0.002)		0.006*** (0.002)		0.006*** (0.002)		0.006*** (0.002)
P/L/Assets		-0.740* (0.421)		-0.741* (0.421)		-0.741* (0.421)		-0.736* (0.421)
CashFlow/Assets		0.583 (0.380)		0.581 (0.380)		0.583 (0.379)		0.574 (0.380)
HHI		1.897*** (0.664)		1.890*** (0.665)		1.893*** (0.664)		1.890*** (0.664)
HHI*HHI		-1.233** (0.594)		-1.226** (0.595)		-1.230** (0.594)		-1.225** (0.594)
Constant	6.409*** (0.000)	-1.139 (0.790)	6.408*** (0.001)	-1.133 (0.790)	6.409*** (0.000)	-1.136 (0.791)	6.407*** (0.001)	-1.130 (0.790)
FirmFE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
YearFE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	151,450	88,295	151,450	88,295	151,450	88,295	151,450	88,295
Log-likelihood	-662901	-410965	-662875	-410971	-662846	-410974	-662747	-410941

Panel B: SOE versus Private

	Ownership				Control			
	Narrow		Broad		Narrow		Broad	
CNOwn	0.058 (0.062)	-0.046 (0.074)	0.054 (0.041)	0.014 (0.047)	0.104* (0.059)	-0.018 (0.068)	0.138** (0.056)	0.073 (0.073)
CNOwn*SOE	0.093 (0.089)	0.157 (0.100)	0.102 (0.077)	0.107 (0.086)	0.051 (0.088)	0.133 (0.098)	0.032 (0.086)	0.063 (0.101)
Log(1+Assets)		0.263*** (0.068)		0.262*** (0.068)		0.263*** (0.068)		0.262*** (0.068)
Log(1+Fixed)		0.058 (0.049)		0.058 (0.049)		0.058 (0.049)		0.058 (0.049)
Log(1+Debts)		0.004 (0.006)		0.004 (0.006)		0.004 (0.006)		0.004 (0.006)
Log(1+Sales)		-0.011 (0.021)		-0.012 (0.021)		-0.012 (0.021)		-0.012 (0.021)
Log(1+Empl)		-0.004 (0.026)		-0.003 (0.026)		-0.003 (0.026)		-0.003 (0.026)
Log(1+OpeRev)		0.029* (0.017)		0.029* (0.017)		0.029* (0.017)		0.029* (0.017)
ROA		0.006*** (0.002)		0.006*** (0.002)		0.006*** (0.002)		0.006*** (0.002)
P/L/Assets		-0.740* (0.421)		-0.741* (0.421)		-0.741* (0.421)		-0.737* (0.421)
CashFlow/Assets		0.583 (0.380)		0.581 (0.380)		0.583 (0.379)		0.574 (0.380)
HHI		1.898*** (0.664)		1.891*** (0.665)		1.894*** (0.664)		1.890*** (0.664)
HHI*HHI		-1.234** (0.594)		-1.227** (0.595)		-1.230** (0.594)		-1.226** (0.594)
Constant	6.409*** (0.000)	-1.139 (0.790)	6.408*** (0.001)	-1.133 (0.790)	6.409*** (0.000)	-1.136 (0.791)	6.407*** (0.001)	-1.130 (0.790)
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	151,450	88,295	151,450	88,295	151,450	88,295	151,450	88,295
Log-likelihood	-662893	-410958	-662865	-410968	-662844	-410969	-662746	-410940

**Table 6. China's Ownership and Other Firm-Level Outcomes**

Notes: This table reports OLS regression analyses examining the relationship between Chinese ownership and target firms' profitability, investment, and employment. Dependent variables include the logarithm of firm-level fixed assets, return on assets (ROA) measured using income and profit/loss (P/L) before tax, and the logarithm of the firm-level number of employees. CNOwn with control identifies firms whose largest direct shareholders with at least 10% ownership or ultimate shareholders (UO10) are Chinese entities (mainland China, Hong Kong, Macau, or with "golden shares"); CNOwn\*SOE with control identifies the largest direct ( $\geq 10\%$ ) or ultimate ownership by Chinese government entities (UO25). Control variables are detailed in Table A1 of the Appendix. The sample covers the period from 2012 to 2021. Standard errors clustered at the firm level are in parentheses. Significance levels: \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

	<i>Panel A: Overall</i>			<i>Panel B: SOE versus Private</i>			
	Control (Broad)			Control (Broad)			
	(1)	(2)	(3)	(1)	(2)	(3)	
CNOwn	ROA -1.072*** (0.273)	Log(1+Fixed) 0.072*** (0.022)	Log(1+Empl) -0.022* (0.012)	CNOwn	ROA -0.949*** (0.284)	Log(1+Fixed) 0.063*** (0.022)	Log(1+Empl) -0.025** (0.012)
				CNOwn*SOE	-1.359** (0.566)	0.094* (0.054)	0.038 (0.023)
Log(1+Assets)	1.446*** (0.093)			Log(1+Assets)	1.446*** (0.093)		
Log(1+Fixed)	-0.686*** (0.041)			Log(1+Fixed)	-0.686*** (0.041)		
Log(1+Debts)	-0.386*** (0.014)			Log(1+Debts)	-0.386*** (0.014)		
Log(1+Sales)	2.806*** (0.060)			Log(1+Sales)	2.806*** (0.060)		
Log(1+Empl)	-1.329*** (0.063)			Log(1+Empl)	-1.329*** (0.063)		
ROA		-0.008*** (0.001)	0.000 (0.000)	ROA		-0.008*** (0.001)	0.000 (0.000)
P/L/Assets		0.499*** (0.100)	-0.498*** (0.045)	P/L/Assets		0.499*** (0.100)	-0.498*** (0.045)
CashFlow/Assets		0.440*** (0.099)	0.614*** (0.040)	CashFlow/Assets		0.440*** (0.099)	0.614*** (0.040)
HHI	0.310 (0.346)	0.030*** (0.010)	0.005 (0.005)	HHI	0.310 (0.346)	0.030*** (0.010)	0.005 (0.005)
HHI*HHI	-0.000 (0.000)	-0.000*** (0.000)	-0.000 (0.000)	HHI*HHI	-0.000 (0.000)	-0.000*** (0.000)	-0.000 (0.000)
Constant	-48.092*** (1.452)	17.310*** (0.004)	5.337*** (0.002)	Constant	-48.094*** (1.452)	17.310*** (0.004)	5.337*** (0.002)
Firm FE	Yes	Yes	Yes	Firm FE	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Year FE	Yes	Yes	Yes
Observations	539,197	769,057	559,919	Observations	539,197	769,057	559,919
R-squared	0.636	0.908	0.955	R-squared	0.636	0.908	0.955

**Table 7. China's Ownership and Supply Chain**

Notes: This table presents OLS regression analyses examining the relationship between Chinese ownership and the supply chain relationships of non-China firms. The dependent variables are binary indicators reflecting whether a non-Chinese firm becomes a supplier or a customer of a Chinese firm, as identified by FactSet Revere. CNOwn identifies firms whose direct or ultimate shareholders (UO10) are Chinese entities; CNOwn\*SOE identifies direct or ultimate ownership by Chinese government entities (UO25). With control, Chinese entities must be the largest direct shareholders with at least 10% ownership or ultimate shareholders. The narrow definition includes entities in mainland China, while the broad definition includes entities in mainland China, Hong Kong, Macau, or with "golden shares." Control variables are detailed in Table A1 of the Appendix. The sample covers the period from 2012 to 2021. Standard errors clustered at the firm level are in parentheses. Significance levels: \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

*Panel A: CNSupplier*

	Ownership				Control			
		Narrow	Broad	Narrow	Broad	Narrow	Broad	
CNOwn	0.036 (0.031)	0.042 (0.033)	0.037* (0.020)	0.039* (0.020)	0.062* (0.035)	0.072* (0.037)	0.088*** (0.030)	0.094*** (0.031)
CNOwn*SOE		-0.103** (0.040)		-0.096*** (0.033)		-0.129*** (0.044)		-0.139*** (0.042)
Log(1+Assets)	0.015 (0.011)	0.015 (0.011)	0.015 (0.011)	0.015 (0.011)	0.015 (0.011)	0.016 (0.011)	0.015 (0.011)	0.015 (0.011)
Log(1+Fixed)	0.002 (0.007)	0.002 (0.007)	0.002 (0.007)	0.002 (0.007)	0.002 (0.007)	0.002 (0.007)	0.002 (0.007)	0.002 (0.007)
Log(1+Debts)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)
Log(1+Sales)	-0.004 (0.006)	-0.004 (0.006)	-0.004 (0.006)	-0.004 (0.006)	-0.004 (0.006)	-0.004 (0.006)	-0.004 (0.006)	-0.004 (0.006)
Log(1+Empl)	0.001 (0.006)	0.001 (0.006)	0.000 (0.006)	0.000 (0.006)	0.000 (0.006)	0.000 (0.006)	0.001 (0.006)	0.001 (0.006)
Log(1+OpeRev)	0.004 (0.003)	0.004 (0.003)	0.004 (0.003)	0.004 (0.003)	0.004 (0.003)	0.004 (0.003)	0.004 (0.003)	0.004 (0.003)
ROA	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)
P/L/Assets	-0.029 (0.048)	-0.029 (0.048)	-0.030 (0.048)	-0.030 (0.048)	-0.029 (0.048)	-0.029 (0.048)	-0.028 (0.048)	-0.027 (0.048)
CashFlow/Assets	0.013 (0.038)	0.013 (0.038)	0.014 (0.038)	0.013 (0.038)	0.013 (0.038)	0.012 (0.038)	0.012 (0.038)	0.012 (0.038)
Supplier	0.057*** (0.005)	0.057*** (0.005)	0.057*** (0.005)	0.057*** (0.005)	0.057*** (0.005)	0.057*** (0.005)	0.057*** (0.005)	0.057*** (0.005)
Customer	0.009* (0.005)	0.009* (0.005)	0.009* (0.005)	0.009* (0.005)	0.009* (0.005)	0.009* (0.005)	0.009* (0.005)	0.009* (0.005)
HHI	-0.152 (0.132)	-0.151 (0.133)	-0.156 (0.132)	-0.155 (0.132)	-0.153 (0.132)	-0.151 (0.132)	-0.158 (0.131)	-0.156 (0.131)
HHI*HHI	0.161 (0.143)	0.160 (0.143)	0.165 (0.142)	0.165 (0.142)	0.164 (0.142)	0.164 (0.142)	0.164 (0.140)	0.163 (0.140)
Constant	-0.303* (0.175)	-0.305* (0.175)	-0.303* (0.175)	-0.305* (0.175)	-0.306* (0.175)	-0.309* (0.175)	-0.301* (0.175)	-0.302* (0.175)
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	33,804	33,804	33,804	33,804	33,804	33,804	33,804	33,804
R-squared	0.584	0.584	0.584	0.584	0.584	0.584	0.584	0.584

Panel B: CNCustomer

	Ownership				Control			
	Narrow		Broad		Narrow		Broad	
CNOwn	0.009 (0.030)	0.013 (0.031)	0.020 (0.021)	0.022 (0.021)	0.003 (0.036)	0.009 (0.038)	0.022 (0.032)	0.026 (0.033)
CNOwn*SOE		-0.082 (0.112)		-0.087 (0.109)		-0.078 (0.114)		-0.090 (0.110)
Log(1+Assets)	-0.000 (0.011)	-0.000 (0.011)	-0.000 (0.011)	-0.000 (0.011)	-0.000 (0.011)	-0.000 (0.011)	-0.000 (0.011)	-0.000 (0.011)
Log(1+Fixed)	0.005 (0.007)	0.005 (0.007)	0.005 (0.007)	0.005 (0.007)	0.005 (0.007)	0.005 (0.007)	0.005 (0.007)	0.005 (0.007)
Log(1+Debts)	-0.001 (0.002)	-0.001 (0.002)	-0.001 (0.002)	-0.001 (0.002)	-0.001 (0.002)	-0.001 (0.002)	-0.001 (0.002)	-0.001 (0.002)
Log(1+Sales)	-0.004 (0.006)	-0.004 (0.006)	-0.004 (0.006)	-0.004 (0.006)	-0.004 (0.006)	-0.004 (0.006)	-0.004 (0.006)	-0.004 (0.006)
Log(1+Empl)	-0.005 (0.008)	-0.005 (0.008)	-0.005 (0.008)	-0.005 (0.008)	-0.005 (0.008)	-0.005 (0.008)	-0.005 (0.008)	-0.005 (0.008)
Log(1+OpeRev)	0.005 (0.003)	0.005 (0.003)	0.005 (0.003)	0.005 (0.003)	0.005 (0.003)	0.005 (0.003)	0.005 (0.003)	0.005 (0.003)
ROA	-0.001** (0.000)	-0.001** (0.000)	-0.001** (0.000)	-0.001** (0.000)	-0.001** (0.000)	-0.001** (0.000)	-0.001** (0.000)	-0.001** (0.000)
P/L/Assets	0.114** (0.052)	0.114** (0.052)	0.113** (0.052)	0.113** (0.052)	0.114** (0.052)	0.114** (0.052)	0.114** (0.052)	0.115** (0.052)
CashFlow/Assets	-0.111** (0.044)	-0.111** (0.044)	-0.110** (0.044)	-0.110** (0.044)	-0.111** (0.044)	-0.111** (0.044)	-0.111** (0.044)	-0.111** (0.044)
Supplier	0.016*** (0.005)	0.016*** (0.005)	0.016*** (0.005)	0.016*** (0.005)	0.016*** (0.005)	0.016*** (0.005)	0.016*** (0.005)	0.016*** (0.005)
Customer	0.054*** (0.005)	0.054*** (0.005)	0.054*** (0.005)	0.054*** (0.005)	0.054*** (0.005)	0.054*** (0.005)	0.054*** (0.005)	0.054*** (0.006)
HHI	-0.005 (0.144)	-0.004 (0.144)	-0.008 (0.144)	-0.007 (0.144)	-0.005 (0.144)	-0.004 (0.144)	-0.007 (0.144)	-0.006 (0.144)
HHI*HHI	-0.051 (0.147)	-0.051 (0.147)	-0.048 (0.147)	-0.049 (0.147)	-0.051 (0.147)	-0.051 (0.147)	-0.050 (0.146)	-0.051 (0.146)
Constant	0.054 (0.167)	0.053 (0.167)	0.054 (0.167)	0.053 (0.167)	0.054 (0.167)	0.053 (0.167)	0.055 (0.167)	0.054 (0.167)
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	33,804	33,804	33,804	33,804	33,804	33,804	33,804	33,804
R-squared	0.648	0.648	0.648	0.648	0.648	0.648	0.648	0.648

**Table 8. Identification: MIC2025**

Notes: This table employs a two-stage identification strategy to analyze the impact of China's "Made in China 2025" (MIC2025) policy on Chinese ownership in foreign firms and subsequent firm outcomes. The analysis focuses on firms in countries and sectors explicitly targeted by MIC2025, detailed in Table A2 of the Appendix. The first-stage regressions assess determinants of Chinese ownership, including overall Chinese ownership (CNOwn), private ownership (CNOwn\*Pvt), and state-owned enterprise ownership (CNOwn\*SOE). The key independent variable is the interaction of TreatedSector with Post2015, capturing the policy shock. The second stage examines the policy's reduced-form effects on firm-level outcomes: R&D expenditures (logarithm of reported R&D, with missing values treated as zero and indicated by Blank\_R&D), granted patents (from year t+1 to t+3, adjusted to avoid double counting), profitability (ROA based on income and profit/loss before tax), investment (logarithm of fixed assets), employment (logarithm of the number of employees), and supply chain relationships (binary indicators for being suppliers or customers of Chinese firms as reported by FactSet Revere). All regressions include firm and country\*year fixed effects. Control variables are detailed in Table A1 of the Appendix. The sample covers the period from 2012 to 2017, three years before and three years after the shock. Non-count outcomes are estimated with OLS regressions, while count outcomes (granted patents) are estimated with Poisson regressions. Standard errors clustered at the sector\*year level are in parentheses. Significance levels: \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

<i>Panel A: Chinese ownership</i>			
	CNOwn	CNOwn*Pvt	CNOwn*SOE
	Control (Broad)		
TreatedSector*Post2015	0.003* (0.002)	0.002 (0.002)	0.001** (0.000)
TreatedSector*Pre1	-0.005 (0.003)	-0.005 (0.003)	0.000 (0.000)
TreatedSector*Pre2	-0.003 (0.003)	-0.004 (0.003)	0.000 (0.000)
Log(1+Assets)	-0.002 (0.001)	-0.001 (0.001)	-0.000 (0.001)
Log(1+Fixed)	0.001 (0.001)	0.000 (0.001)	0.000 (0.000)
Log(1+Debts)	-0.000 (0.000)	-0.000 (0.000)	0.000 (0.000)
Log(1+Sales)	0.002*** (0.001)	0.003*** (0.001)	-0.000 (0.000)
Log(1+Empl)	-0.001 (0.001)	-0.001 (0.001)	-0.000 (0.000)
Log(1+OpeRev)	-0.001*** (0.000)	-0.001*** (0.000)	-0.000 (0.000)
ROA	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)
PL/Assets	0.021* (0.011)	0.021* (0.011)	0.001 (0.002)
CashFlow/Assets	-0.017 (0.013)	-0.016 (0.013)	-0.000 (0.002)
HHI	0.009** (0.004)	0.007* (0.004)	0.001 (0.001)
HHI*HHI	-0.000** (0.000)	-0.000* (0.000)	-0.000 (0.000)
Blank_R&D	-0.005** (0.002)	-0.005** (0.002)	0.000 (0.000)
Constant	0.004 (0.025)	0.004 (0.024)	0.000 (0.005)
FirmFE	Yes	Yes	Yes
Country*YearFE	Yes	Yes	Yes
Observations	108,965	108,965	108,965
R-squared / Log-likelihood	0.655	0.630	0.532

Panel B: Firm-level outcomes

	Log(1+R&D)	#GrantedPatents	ROA	Log(1+Fixed)	Log(1+Empl)	CNCustomer	CNSupplier
TreatedSector*Post2015	0.036** (0.014)	-0.032** (0.013)	-0.393** (0.170)	0.046*** (0.017)	0.023*** (0.008)	-0.005 (0.016)	0.032* (0.018)
TreatedSector*Pre1	0.001 (0.016)	0.000 (0.016)	-0.013 (0.240)	-0.016 (0.024)	-0.005 (0.011)	0.005 (0.020)	0.022 (0.022)
TreatedSector*Pre2	0.038 (0.032)	-0.003 (0.022)	-0.062 (0.227)	-0.035 (0.029)	-0.013 (0.015)	-0.003 (0.033)	-0.000 (0.027)
Log(1+Assets)	0.131*** (0.019)	0.203*** (0.035)	2.448*** (0.290)			-0.002 (0.017)	-0.010 (0.018)
Log(1+Fixed)	-0.016** (0.007)	0.006 (0.022)	-0.890*** (0.110)			-0.004 (0.011)	0.006 (0.011)
Log(1+Debts)	0.002 (0.003)	0.002 (0.005)	-0.401*** (0.030)			0.001 (0.003)	-0.001 (0.002)
Log(1+Sales)	0.062*** (0.013)	-0.010 (0.013)	3.167*** (0.220)			0.005 (0.009)	0.000 (0.009)
Log(1+Empl)	0.095*** (0.016)	0.016 (0.021)	-2.218*** (0.207)			-0.011 (0.013)	-0.011 (0.013)
Log(1+OpeRev)	0.012 (0.009)	0.011 (0.009)				0.000 (0.004)	-0.002 (0.006)
ROA	-0.002** (0.001)	0.003 (0.002)		-0.008*** (0.001)	0.000 (0.001)	-0.000 (0.001)	0.001 (0.001)
PL/Assets	-0.160 (0.180)	-0.662** (0.284)		0.957*** (0.147)	-0.484*** (0.085)	-0.003 (0.084)	-0.024 (0.080)
CashFlow/Assets	0.092 (0.168)	0.764*** (0.249)		-0.062 (0.152)	0.498*** (0.068)	-0.011 (0.080)	-0.011 (0.073)
HHI	-0.058 (0.081)	0.882*** (0.284)	0.693 (0.523)	-0.009 (0.023)	0.006 (0.010)	0.252 (0.237)	-0.140 (0.201)
HHI*HHI	0.000 (0.000)	-0.652** (0.293)	-0.000 (0.000)	0.000 (0.000)	-0.000 (0.000)	-0.278 (0.220)	0.116 (0.175)
Blank_R&D	-10.083*** (0.257)						
Supplier						-0.003 (0.009)	0.034*** (0.006)
Customer						0.031*** (0.009)	0.009 (0.007)
Constant	6.786*** (0.386)	1.911*** (0.523)	-64.774*** (5.376)	17.558*** (0.011)	5.419*** (0.005)	0.169 (0.281)	0.340 (0.284)
FirmFE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country*YearFE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	108,965	38,028	125,626	164,421	136,456	10,516	10,516
R-squared / Log-likelihood	0.984	-157037	0.718	0.927	0.971	0.664	0.623

**Table 9. Is China Unique?**

Notes: This table compares the impacts of ownership by the US, Japan, and India on target firms' firm-level outcomes: R&D expenditures (logarithm of reported R&D, with missing values treated as zero and indicated by Blank\_R&D), granted patents (from year t+1 to t+3, adjusted to avoid double counting), profitability (ROA based on income and profit/loss before tax), investment (logarithm of fixed assets), employment (logarithm of the number of employees), and supply chain relationships (binary indicators for being suppliers or customers of firms from the specified country XX as reported by FactSet Revere). XX ownership with control (XXOwn with control) identifies firms whose largest direct shareholders with at least 10% ownership or ultimate shareholders (UO10) are XX entities. Control variables are detailed in Table A1 of the Appendix. The sample covers the period from 2012 to 2021. Non-count outcomes are estimated with OLS regressions, while count outcomes (granted patents) are estimated with Poisson regressions. Standard errors clustered at the firm level are in parentheses. Significance levels: \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

<i>Panel A: XX = US</i>							
	Log(1+R&D)	#GrantedPatents	ROA	Log(1+Fixed)	Log(1+Empl)	XXSupplier	XXCustomer
XX_Owned	0.017 (0.014)	0.113 (0.069)	-0.080 (0.081)	0.059*** (0.008)	0.015*** (0.004)	0.041** (0.018)	-0.004 (0.018)
Log(1+Assets)	0.070*** (0.012)	0.418*** (0.067)	0.775*** (0.085)			0.026 (0.019)	0.035* (0.021)
Log(1+Fixed)	0.011** (0.004)	0.033 (0.041)	-0.623*** (0.038)			0.020 (0.014)	0.004 (0.017)
Log(1+Debts)	0.003 (0.002)	0.002 (0.006)	-0.352*** (0.013)			0.001 (0.003)	0.001 (0.003)
Log(1+Sales)	0.037*** (0.009)	0.027 (0.029)	3.080*** (0.057)			-0.014 (0.010)	0.014 (0.010)
Log(1+Empl)	0.061*** (0.011)	-0.051* (0.030)	-0.926*** (0.044)			0.004 (0.010)	0.013 (0.010)
Log(1+OpeRev)	0.020*** (0.007)	0.046 (0.030)				0.001 (0.005)	-0.006 (0.005)
ROA	-0.001** (0.001)	0.004** (0.002)		-0.009*** (0.001)	-0.001* (0.000)	-0.001* (0.001)	-0.001* (0.001)
P/L/Assets	-0.006 (0.069)	-0.844*** (0.319)		0.157** (0.079)	-0.336*** (0.042)	-0.027 (0.077)	0.149* (0.077)
CashFlow/Assets	-0.139 (0.093)	0.779** (0.379)		0.789*** (0.092)	0.514*** (0.041)	0.085 (0.087)	-0.076 (0.102)
HHI	0.174** (0.080)	3.778*** (0.724)	-0.003 (0.281)	0.034*** (0.010)	0.005 (0.005)	0.292* (0.171)	0.172 (0.154)
HHI*HHI	-0.000** (0.000)	-3.144*** (0.704)	-0.000 (0.000)	-0.000*** (0.000)	-0.000 (0.000)	-0.278* (0.164)	-0.225* (0.136)
Blank_R&D	-7.369*** (0.127)						
Supplier						0.211*** (0.011)	0.023** (0.010)
Customer						-0.000 (0.009)	0.237*** (0.012)
Constant	4.417*** (0.215)	-4.912*** (1.141)	-43.905*** (1.319)	17.200*** (0.004)	5.289*** (0.002)	-0.627** (0.295)	-0.898*** (0.315)
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	418,858	79,569	592,369	742,878	540,174	20,503	20,503
R-squared / Log-likelihood	0.949	-384585	0.627	0.904	0.954	0.730	0.716

Panel B:  $XX = JP$

	Log(1+R&D)	#GrantedPatents	ROA	Log(1+Fixed)	Log(1+Empl)	XXSupplier	XXCustomer
XX_Owned	0.064** (0.033)	0.123 (0.086)	-0.371** (0.178)	0.062*** (0.017)	0.018* (0.010)	0.011 (0.035)	0.058* (0.033)
Log(1+Assets)	0.092*** (0.011)	0.317*** (0.079)	1.036*** (0.089)			0.013 (0.013)	0.013 (0.011)
Log(1+Fixed)	0.015*** (0.005)	0.074 (0.048)	-0.634*** (0.039)			0.021** (0.009)	-0.004 (0.007)
Log(1+Debts)	0.003 (0.002)	-0.001 (0.009)	-0.395*** (0.013)			0.005*** (0.001)	0.000 (0.001)
Log(1+Sales)	0.028*** (0.008)	0.011 (0.026)	3.071*** (0.060)			-0.011 (0.007)	-0.010 (0.008)
Log(1+Empl)	0.059*** (0.010)	-0.017 (0.038)	-0.959*** (0.046)			0.003 (0.006)	-0.004 (0.008)
Log(1+OpeRev)	0.028*** (0.006)	0.019 (0.012)				0.009** (0.004)	0.004 (0.003)
ROA	-0.003*** (0.001)	0.010*** (0.003)		-0.007*** (0.001)	-0.001** (0.000)	-0.000 (0.000)	-0.001* (0.000)
P/L/Assets	0.096 (0.139)	-0.766* (0.434)		0.155** (0.065)	-0.204*** (0.055)	0.018 (0.040)	0.066* (0.040)
CashFlow/Assets	-0.120 (0.127)	0.261 (0.339)		0.703*** (0.080)	0.387*** (0.047)	-0.023 (0.043)	-0.054 (0.042)
HHI	0.183** (0.081)	2.839*** (0.823)	-0.258 (0.291)	0.035*** (0.010)	0.005 (0.005)	-0.110 (0.123)	-0.050 (0.155)
HHI*HHI	-0.000** (0.000)	-2.103*** (0.760)	0.000 (0.000)	-0.000*** (0.000)	-0.000 (0.000)	0.108 (0.108)	0.026 (0.136)
Blank_R&D	-9.055*** (0.131)						
Supplier						0.072*** (0.006)	0.013** (0.006)
Customer						0.008 (0.006)	0.048*** (0.006)
Constant	5.632*** (0.213)	-3.142*** (1.113)	-47.815*** (1.381)	17.248*** (0.003)	5.334*** (0.002)	-0.719*** (0.181)	0.062 (0.166)
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	411,751	72,022	550,928	743,920	533,812	26,999	26,999
R-squared / Log-likelihood	0.969	-350537	0.642	0.906	0.955	0.673	0.637

Panel C: XX = IN

	Log(1+R&D)	#GrantedPatents	ROA	Log(1+Fixed)	Log(1+Empl)	XXSupplier	XXCustomer
XX_Owned	0.049 (0.047)	-0.013 (0.110)	-0.615 (0.410)	-0.072* (0.043)	-0.009 (0.018)	-0.033 (0.036)	-0.033 (0.044)
Log(1+Assets)	0.090*** (0.012)	0.364*** (0.071)	1.008*** (0.086)			-0.011 (0.008)	-0.005 (0.008)
Log(1+Fixed)	0.012*** (0.005)	0.057 (0.046)	-0.637*** (0.038)			0.012** (0.005)	0.005 (0.005)
Log(1+Debts)	0.002 (0.002)	-0.000 (0.006)	-0.380*** (0.013)			0.001 (0.001)	0.001 (0.001)
Log(1+Sales)	0.033*** (0.009)	0.011 (0.023)	3.248*** (0.058)			-0.006* (0.003)	-0.013** (0.005)
Log(1+Empl)	0.064*** (0.010)	-0.034 (0.028)	-1.008*** (0.045)			0.002 (0.004)	-0.005 (0.005)
Log(1+OpeRev)	0.027*** (0.006)	0.029* (0.017)				0.002 (0.002)	0.005* (0.003)
ROA	-0.002*** (0.001)	0.006*** (0.002)		-0.007*** (0.001)	-0.001** (0.000)	-0.000 (0.000)	-0.000 (0.000)
P/L/Assets	0.104 (0.132)	-0.711** (0.342)		0.155** (0.064)	-0.232*** (0.052)	-0.020 (0.036)	0.052 (0.033)
CashFlow/Assets	-0.189 (0.124)	0.531 (0.324)		0.731*** (0.079)	0.417*** (0.045)	0.012 (0.031)	-0.066* (0.035)
HHI	0.176** (0.080)	3.305*** (0.735)	-0.095 (0.285)	0.034*** (0.010)	0.005 (0.005)	0.064 (0.085)	-0.021 (0.132)
HHI*HHI	-0.000** (0.000)	-2.603*** (0.698)	0.000 (0.000)	-0.000*** (0.000)	-0.000 (0.000)	-0.020 (0.083)	0.057 (0.136)
Blank_R&D	-7.911*** (0.125)						
Supplier						0.022*** (0.003)	0.013*** (0.004)
Customer						0.006* (0.003)	0.020*** (0.004)
Constant	4.673*** (0.212)	-3.642*** (0.958)	-50.654*** (1.340)	17.353*** (0.003)	5.363*** (0.002)	0.037 (0.112)	0.266* (0.136)
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	447,892	91,359	621,562	729,439	569,938	34,705	34,705
R-squared / Log-likelihood	0.964	-465424	0.643	0.906	0.955	0.579	0.650

**Table 10. The Crowding-Out Effect of China's Control on Non-Targeted Firms**

Notes: This table presents regression results examining the spillover (crowding-out) effects of Chinese ownership on outcomes across peer firms without Chinese ownership within the same country-industry-year group. Dependent variables include R&D expenditures (logarithm of reported R&D, with missing values treated as zero and indicated by Blank\_R&D), granted patents (from year t+1 to t+3, adjusted to avoid double counting), profitability (ROA based on income and profit/loss before tax), investment (logarithm of fixed assets), employment (logarithm of the number of employees), and supply chain relationships (binary indicators for being suppliers or customers of Chinese firms as reported by FactSet Revere). The data includes non-financial, non-Chinese "Very Large" firms from Orbis. Firms based in mainland China, Hong Kong, Macau, or with "golden shares" are excluded, as well as those ever owned by Chinese entities. R&D expenditures and assets are winsorized at the 1st and 99th percentiles and log-transformed; missing R&D expenditures are set to zero and indicated by Blank\_R&D. Chinese-owned assets (CNOwn\*Assets and CNOwn\*SOE\*Assets) are aggregated at the country-sector level and log-transformed. CNOwn with control identifies firms whose largest direct shareholders with at least 10% ownership or ultimate shareholders (UO10) are Chinese entities (mainland China, Hong Kong, Macau, or with "golden shares"); CNOwn\*SOE with control identifies the largest direct ( $\geq 10\%$ ) or ultimate ownership by Chinese government entities (UO25); CNOwn\*Pvt denotes private Chinese ownership, indicating non-SOE Chinese ownership. Control variables are detailed in Table A1 of the Appendix. The sample covers the period from 2012 to 2021. Non-count outcomes are estimated with OLS regressions, while count outcomes (granted patents) are estimated with Poisson regressions. Standard errors clustered at the country-sector-year level are in parentheses. Significance levels: \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
<i>Panel A: Overall</i>				Control (Broad)			
	Log(1+R&D)	#GrantedPatents	ROA	Log(1+Fixed)	Log(1+Empl)	CNSupplier	CNCustomer
%CNOwn*Assets	-0.205** (0.084)	-0.082 (0.246)	0.369 (0.604)	-0.054 (0.041)	0.007 (0.029)	-0.179** (0.083)	0.045 (0.090)
Log(1+ $\sum$ Assets_NonCN)	-0.002 (0.014)	0.106** (0.053)	-0.138 (0.089)			-0.013 (0.010)	-0.024* (0.013)
Log(1+Assets)	0.059*** (0.008)	0.284*** (0.029)	1.451*** (0.095)			0.011 (0.007)	0.013* (0.008)
Log(1+Fixed)	-0.001 (0.003)	0.006 (0.018)	-0.644*** (0.037)			0.004 (0.005)	-0.007 (0.005)
Log(1+Debts)	-0.000 (0.002)	0.004 (0.005)	-0.373*** (0.014)			0.000 (0.001)	-0.001 (0.001)
Log(1+Sales)	0.026*** (0.006)	-0.002 (0.014)	2.690*** (0.067)			-0.005 (0.004)	0.002 (0.005)
Log(1+Empl)	0.066*** (0.008)	0.014 (0.022)	-1.405*** (0.061)			-0.004 (0.004)	-0.001 (0.005)
Log(1+OpeRev)	0.017*** (0.005)	0.012* (0.007)				0.006*** (0.002)	0.003 (0.002)
ROA	-0.001*** (0.000)	0.008*** (0.002)		-0.008*** (0.001)	-0.000 (0.000)	0.000 (0.000)	-0.001*** (0.000)
P/L/Assets	0.037 (0.094)	-0.807*** (0.298)		0.482*** (0.093)	-0.532*** (0.044)	-0.030 (0.033)	0.106*** (0.039)
CashFlow/Assets	-0.151* (0.087)	0.500* (0.264)		0.402*** (0.091)	0.653*** (0.038)	0.009 (0.034)	-0.078** (0.039)
HHI	0.003 (0.084)	3.231*** (0.473)	-0.376 (0.507)	-0.036** (0.018)	-0.020** (0.009)	0.018 (0.117)	-0.008 (0.138)
HHI*HHI	-0.003 (0.019)	-2.540*** (0.516)	0.131 (0.183)	0.003 (0.012)	0.006 (0.006)	-0.122 (0.104)	-0.071 (0.131)
Blank_R&D	-8.249*** (0.283)						
Supplier						0.023*** (0.003)	0.004 (0.005)
Customer						0.003 (0.003)	0.033*** (0.004)
Constant	6.200*** (0.408)	-3.293** (1.436)	-43.046*** (2.597)	17.311*** (0.004)	5.334*** (0.002)	0.086 (0.288)	0.550 (0.357)

Firm FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country*Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Sector*Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	416,433	83,703	513,203	724,850	532,683	31,242	31,242
R-squared / Log-likelihood	0.972	-354903	0.645	0.911	0.957	0.579	0.645

*Panel B: SOE versus Private*

	Control (Broad)						
	Log(1+R&D)	#GrantedPatents	ROA	Log(1+Fixed)	Log(1+Empl)	CNSupplier	CNCustomer
%CNOwn*Pvt*Assets	-0.258*** (0.100)	-0.145 (0.284)	0.313 (0.712)	-0.091** (0.045)	-0.022 (0.032)	-0.180** (0.083)	0.113 (0.089)
%CNOwn*SOE*Assets	-1.085** (0.464)	-0.031 (1.940)	4.700 (3.956)	0.108 (0.372)	0.268 (0.215)	0.148 (0.558)	-0.034 (0.672)
Log(1+∑Assets_NonCN)	-0.003 (0.014)	0.106** (0.053)	-0.136 (0.089)			-0.012 (0.010)	-0.024* (0.013)
Log(1+Assets)	0.059*** (0.008)	0.284*** (0.029)	1.451*** (0.095)			0.011 (0.007)	0.013* (0.008)
Log(1+Fixed)	-0.001 (0.003)	0.006 (0.018)	-0.644*** (0.037)			0.004 (0.005)	-0.008 (0.005)
Log(1+Debts)	-0.000 (0.002)	0.004 (0.005)	-0.373*** (0.014)			0.000 (0.001)	-0.001 (0.001)
Log(1+Sales)	0.026*** (0.006)	-0.002 (0.014)	2.690*** (0.067)			-0.005 (0.004)	0.002 (0.005)
Log(1+Empl)	0.066*** (0.008)	0.014 (0.022)	-1.405*** (0.061)			-0.004 (0.004)	-0.001 (0.005)
Log(1+OpeRev)	0.017*** (0.005)	0.012* (0.007)				0.006*** (0.002)	0.003 (0.002)
ROA	-0.001*** (0.000)	0.008*** (0.002)		-0.008*** (0.001)	-0.000 (0.000)	0.000 (0.000)	-0.001*** (0.000)
P/L/Assets	0.037 (0.094)	-0.809*** (0.298)		0.482*** (0.093)	-0.532*** (0.044)	-0.030 (0.033)	0.106*** (0.039)
CashFlow/Assets	-0.151* (0.087)	0.502* (0.263)		0.402*** (0.091)	0.653*** (0.038)	0.009 (0.034)	-0.079** (0.039)
HHI	0.002 (0.084)	3.228*** (0.474)	-0.379 (0.507)	-0.037** (0.018)	-0.021** (0.009)	0.011 (0.117)	-0.009 (0.138)
HHI*HHI	-0.003 (0.019)	-2.539*** (0.516)	0.132 (0.183)	0.003 (0.012)	0.006 (0.006)	-0.113 (0.105)	-0.072 (0.131)
Blank_R&D	-8.249*** (0.283)						
Supplier						0.023*** (0.003)	0.004 (0.005)
Customer						0.003 (0.003)	0.033*** (0.004)
Constant	6.218*** (0.408)	-3.284** (1.438)	-43.092*** (2.599)	17.311*** (0.004)	5.334*** (0.002)	0.077 (0.288)	0.548 (0.356)
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country*Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Sector*Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	416,433	83,703	513,203	724,850	532,683	31,242	31,242
R-squared / Log-likelihood	0.972	-354899	0.645	0.911	0.957	0.579	0.645

**Table 11. The Overall Impact of China's Control on Target Firms' Industries**

Notes: This table presents regression results examining the spillover (overall) effects of Chinese ownership on outcomes across all firms within the same country-industry-year group. Dependent variables include R&D expenditures (logarithm of reported R&D, with missing values treated as zero and indicated by Blank\_R&D), granted patents (from year t+1 to t+3, adjusted to avoid double counting), profitability (ROA based on income and profit/loss before tax), investment (logarithm of fixed assets), employment (logarithm of the number of employees), and supply chain relationships (binary indicators for being suppliers or customers of Chinese firms as reported by FactSet Revere). The data includes non-financial, non-Chinese "Very Large" firms from Orbis. Firms based in mainland China, Hong Kong, Macau, or with "golden shares" are excluded. R&D expenditures and assets are winsorized at the 1st and 99th percentiles and log-transformed; missing R&D expenditures are set to zero and indicated by Blank\_R&D. Chinese-owned assets (CNOwn\*Assets and CNOwn\*SOE\*Assets) are aggregated at the country-sector level and log-transformed. CNOwn with control identifies firms whose largest direct shareholders with at least 10% ownership or ultimate shareholders (UO10) are Chinese entities (mainland China, Hong Kong, Macau, or with "golden shares"); CNOwn\*SOE with control identifies the largest direct ( $\geq 10\%$ ) or ultimate ownership by Chinese government entities (UO25); CNOwn\*Pvt denotes private Chinese ownership, indicating non-SOE Chinese ownership. Control variables are detailed in Table A1 of the Appendix. The sample covers the period from 2012 to 2021. Non-count outcomes are estimated with OLS regressions, while count outcomes (granted patents) are estimated with Poisson regressions. Standard errors clustered at the country-sector-year level are in parentheses. Significance levels: \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

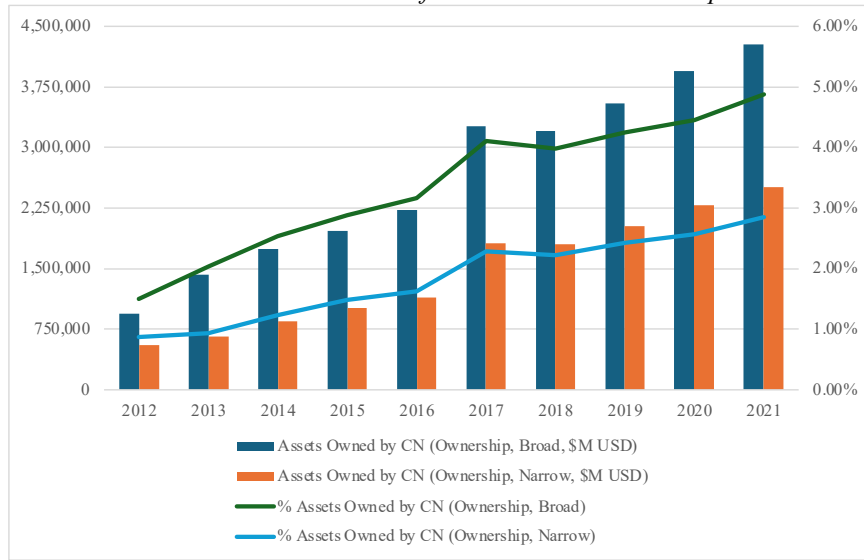
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
<i>Panel A: Overall</i>				Control (Broad)			
	Log(1+R&D)	#GrantedPatents	ROA	Log(1+Fixed)	Log(1+Empl)	CNSupplier	CNCustomer
%CNOwn*Assets	0.067 (0.097)	0.039 (0.192)	0.784 (0.522)	-0.013 (0.036)	0.005 (0.023)	0.018 (0.052)	0.009 (0.056)
Log(1+ $\sum$ Assets_NonCN)	-0.011 (0.014)	0.107** (0.051)	-0.012 (0.053)			-0.019** (0.008)	-0.015*** (0.005)
Log(1+Assets)	0.062*** (0.008)	0.281*** (0.028)	1.534*** (0.094)			0.012* (0.007)	0.017** (0.008)
Log(1+Fixed)	-0.000 (0.003)	0.002 (0.017)	-0.659*** (0.037)			0.005 (0.005)	-0.008 (0.005)
Log(1+Debts)	-0.000 (0.002)	0.004 (0.005)	-0.382*** (0.013)			-0.000 (0.001)	-0.000 (0.001)
Log(1+Sales)	0.029*** (0.006)	-0.012 (0.012)	2.719*** (0.065)			-0.008** (0.004)	-0.000 (0.005)
Log(1+Empl)	0.074*** (0.008)	0.016 (0.021)	-1.398*** (0.060)			-0.004 (0.004)	0.001 (0.005)
Log(1+OpeRev)	0.018*** (0.005)	0.025*** (0.007)				0.007*** (0.002)	0.003 (0.002)
ROA	-0.001*** (0.000)	0.006*** (0.002)		-0.008*** (0.001)	0.000 (0.000)	0.000 (0.000)	-0.001*** (0.000)
P/L/Assets	0.084 (0.097)	-0.701** (0.282)		0.512*** (0.089)	-0.524*** (0.042)	-0.031 (0.032)	0.120*** (0.039)
CashFlow/Assets	-0.179* (0.092)	0.552** (0.261)		0.387*** (0.088)	0.638*** (0.036)	0.016 (0.032)	-0.099*** (0.038)
HHI	0.083 (0.089)	2.925*** (0.470)	-0.360 (0.501)	-0.036** (0.018)	-0.021** (0.009)	-0.022 (0.117)	-0.131 (0.129)
HHI*HHI	-0.023 (0.023)	-2.168*** (0.491)	0.108 (0.183)	0.005 (0.012)	0.007 (0.006)	-0.097 (0.105)	0.034 (0.125)
Blank_R&D	-8.129*** (0.282)						
Supplier						0.026*** (0.003)	0.006 (0.005)
Customer						0.004 (0.003)	0.038*** (0.004)
Constant	6.059*** (0.414)	-3.238** (1.398)	-47.993*** (1.970)	17.325*** (0.004)	5.341*** (0.002)	0.244 (0.246)	0.247 (0.184)

Firm FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country*Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Sector*Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	436,045	87,818	534,760	763,768	556,907	33,600	33,600
R-squared / Log-likelihood	0.970	-376990	0.645	0.910	0.956	0.589	0.651

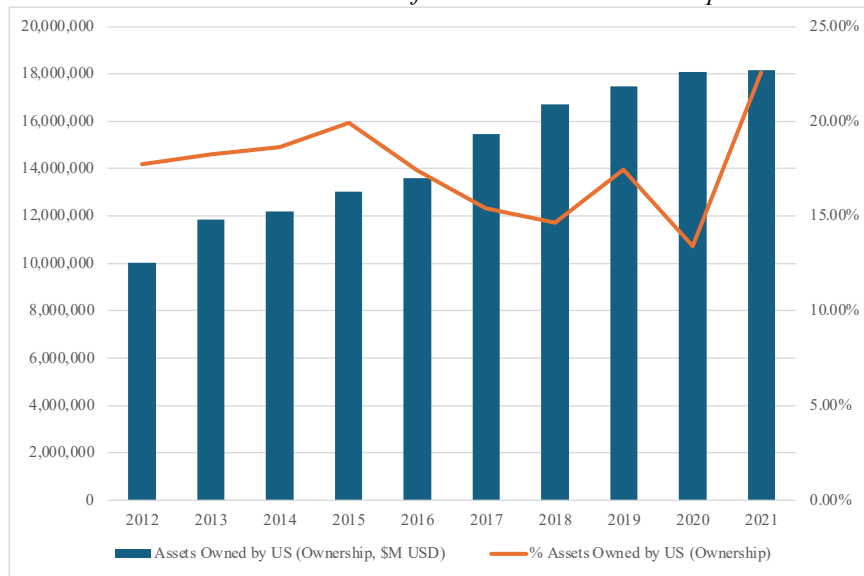
Panel B: SOE versus Private

	Control (Broad)						
	Log(1+R&D)	#GrantedPatents	ROA	Log(1+Fixed)	Log(1+Empl)	CNSupplier	CNCUstomer
%CNOwn*Pvt*Assets	0.047 (0.112)	0.002 (0.224)	1.122* (0.594)	-0.019 (0.038)	-0.018 (0.025)	0.023 (0.053)	0.022 (0.058)
%CNOwn*SOE*Assets	-0.877 (0.595)	-0.011 (1.707)	1.810 (3.834)	-0.095 (0.350)	0.309 (0.191)	-0.439 (0.486)	0.747 (0.561)
Log(1+∑Assets_NonCN)	-0.011 (0.014)	0.107** (0.051)	-0.010 (0.052)			-0.019** (0.008)	-0.015*** (0.005)
Log(1+Assets)	0.062*** (0.008)	0.281*** (0.028)	1.534*** (0.094)			0.012* (0.007)	0.017** (0.008)
Log(1+Fixed)	0.000 (0.003)	0.002 (0.017)	-0.659*** (0.037)			0.005 (0.005)	-0.008 (0.005)
Log(1+Debts)	-0.000 (0.002)	0.004 (0.005)	-0.382*** (0.013)			-0.000 (0.001)	-0.000 (0.001)
Log(1+Sales)	0.029*** (0.006)	-0.012 (0.012)	2.719*** (0.065)			-0.008** (0.004)	-0.000 (0.005)
Log(1+Empl)	0.074*** (0.008)	0.016 (0.021)	-1.398*** (0.060)			-0.004 (0.004)	0.001 (0.005)
Log(1+OpeRev)	0.018*** (0.005)	0.025*** (0.007)				0.007*** (0.002)	0.003 (0.002)
ROA	-0.001*** (0.000)	0.006*** (0.002)		-0.008*** (0.001)	0.000 (0.000)	0.000 (0.000)	-0.001*** (0.000)
P/L/Assets	0.083 (0.097)	-0.702** (0.282)		0.512*** (0.089)	-0.524*** (0.042)	-0.031 (0.032)	0.120*** (0.039)
CashFlow/Assets	-0.178* (0.092)	0.553** (0.261)		0.387*** (0.088)	0.638*** (0.036)	0.016 (0.032)	-0.099*** (0.038)
HHI	0.081 (0.089)	2.921*** (0.471)	-0.362 (0.501)	-0.036* (0.018)	-0.021** (0.009)	-0.016 (0.117)	-0.140 (0.129)
HHI*HHI	-0.023 (0.023)	-2.166*** (0.491)	0.109 (0.183)	0.005 (0.012)	0.008 (0.006)	-0.101 (0.106)	0.041 (0.125)
Blank_R&D	-8.129*** (0.282)						
Supplier						0.026*** (0.003)	0.006 (0.005)
Customer						0.004 (0.003)	0.038*** (0.004)
Constant	6.070*** (0.415)	-3.226** (1.400)	-48.048*** (1.970)	17.326*** (0.004)	5.341*** (0.002)	0.241 (0.245)	0.245 (0.184)
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country*Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Sector*Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	436,045	87,818	534,760	763,768	556,907	33,600	33,600
R-squared / Log-likelihood	0.970	-376991	0.645	0.910	0.956	0.589	0.651

**Figure 1. The Evolution of China's Global Ownership**  
*Panel A. The Evolution of China's Global Ownership*



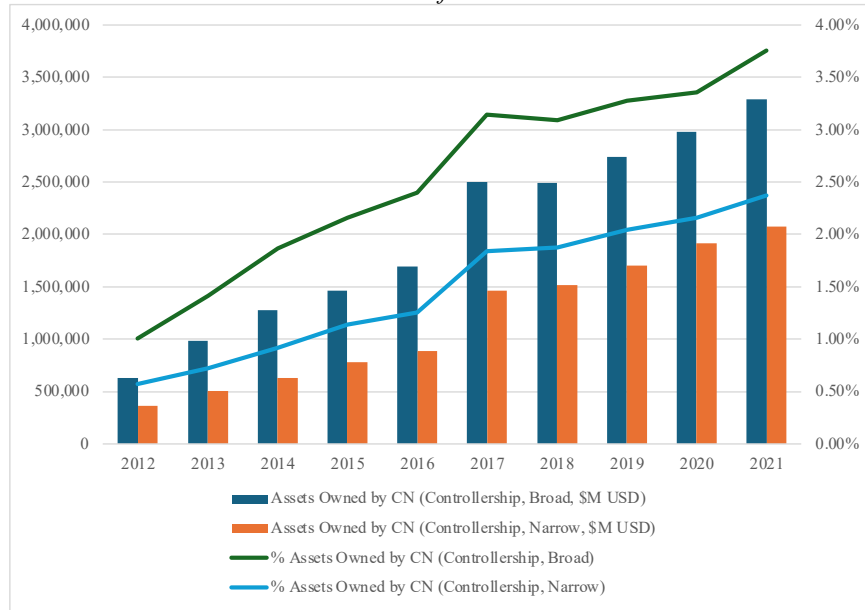
*Panel B. The Evolution of the US's Global Ownership*



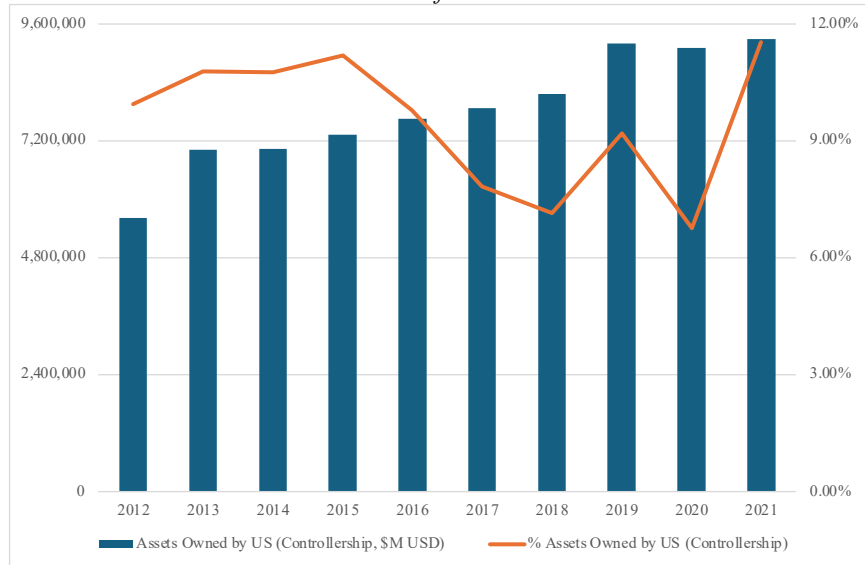
Notes: This figure plots the evolution of global ownership by Chinese and US entities. The data includes non-financial, non-Chinese (non-US) "Very Large" firms from Orbis (2012-2021). Firms based in mainland China, Hong Kong, Macau, or with "golden shares" (firms based in the US) are excluded. Assets are winsorized at the 1st and 99th percentiles and aggregated. CNOwn or USOwn identifies firms whose direct or ultimate shareholders (UO10) are Chinese entities (mainland China, Hong Kong, Macau, or with "golden shares") or US entities. Panel A represents Chinese ownership, and Panel B represents US ownership. Absolute asset values are displayed on the left Y-axis, while the percentages of global control are represented on the right Y-axis.

**Figure 2. The Evolution of China's Global Control**

*Panel A. The Evolution of China's Global Control*

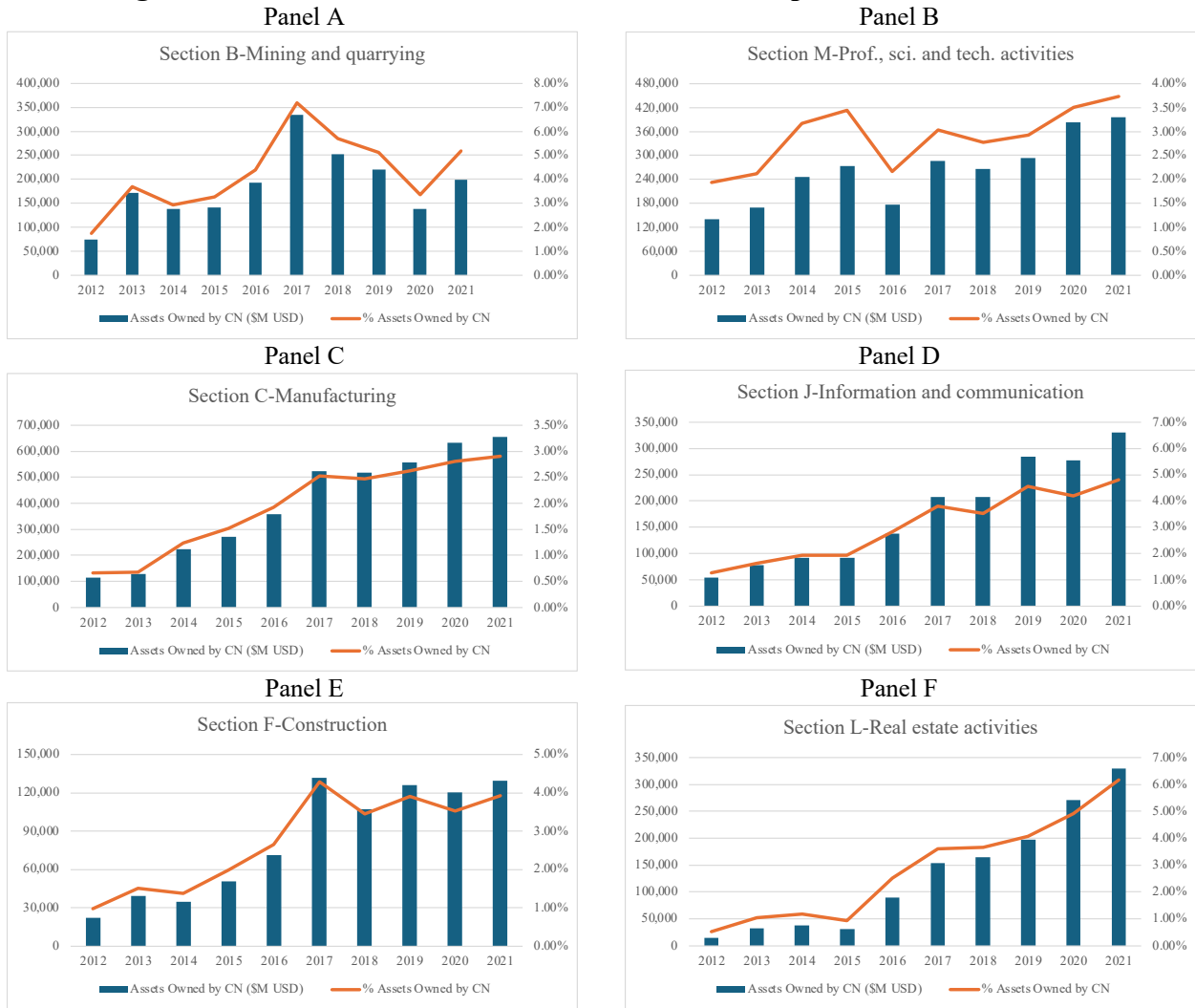


*Panel B. The Evolution of the US's Global Control*



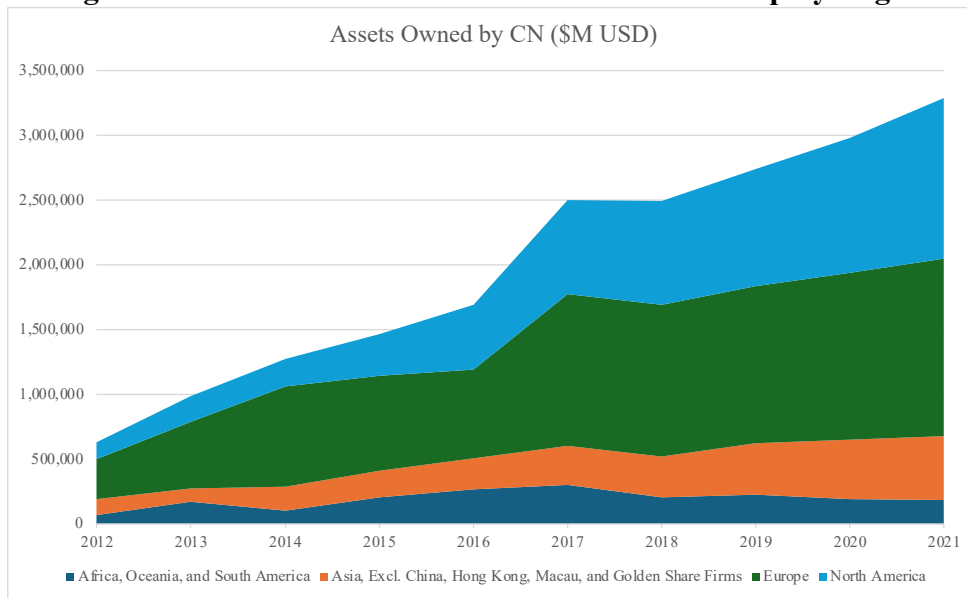
Notes: This figure plots the evolution of global control by Chinese and US entities. The data includes non-financial, non-Chinese (non-US) "Very Large" firms from Orbis (2012-2021). Firms based in mainland China, Hong Kong, Macau, or with "golden shares" (firms based in the US) are excluded. Assets are winsorized at the 1st and 99th percentiles and aggregated. CNOwn or USOwn with control identifies firms whose largest direct shareholders with at least 10% ownership or ultimate shareholders (UO10) are Chinese entities (mainland China, Hong Kong, Macau, or with "golden shares") or US entities. Absolute asset values (million USD) are displayed on the left Y-axis, while the percentages of global control are represented on the right Y-axis.

**Figure 3. The Evolution of China's Global Ownership in Selected Industries**



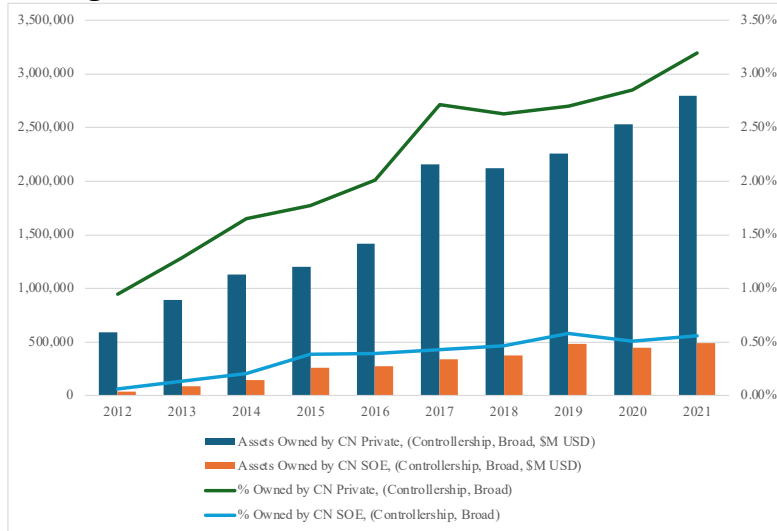
Notes: This figure plots the evolution of China's global ownership across six selected industries: mining and quarrying (Panel A), professional, scientific, and technical activities (Panel B), manufacturing (Panel C), information and communication (Panel D), construction (Panel E), and real estate activities (Panel F). The data includes non-financial, non-Chinese "Very Large" firms from Orbis (2012-2021). Firms based in mainland China, Hong Kong, Macau, or with "golden shares" are excluded. Assets are winsorized at the 1st and 99th percentiles and aggregated within the respective industry. CNOwn with control identifies firms whose largest direct shareholders with at least 10% ownership or ultimate shareholders (UO10) are Chinese entities (mainland China, Hong Kong, Macau, or with "golden shares"). Absolute asset values (million USD) are displayed on the left Y-axis, while the percentages of global control are represented on the right Y-axis.

**Figure 4. The Evolution of China's Global Ownership by Region**



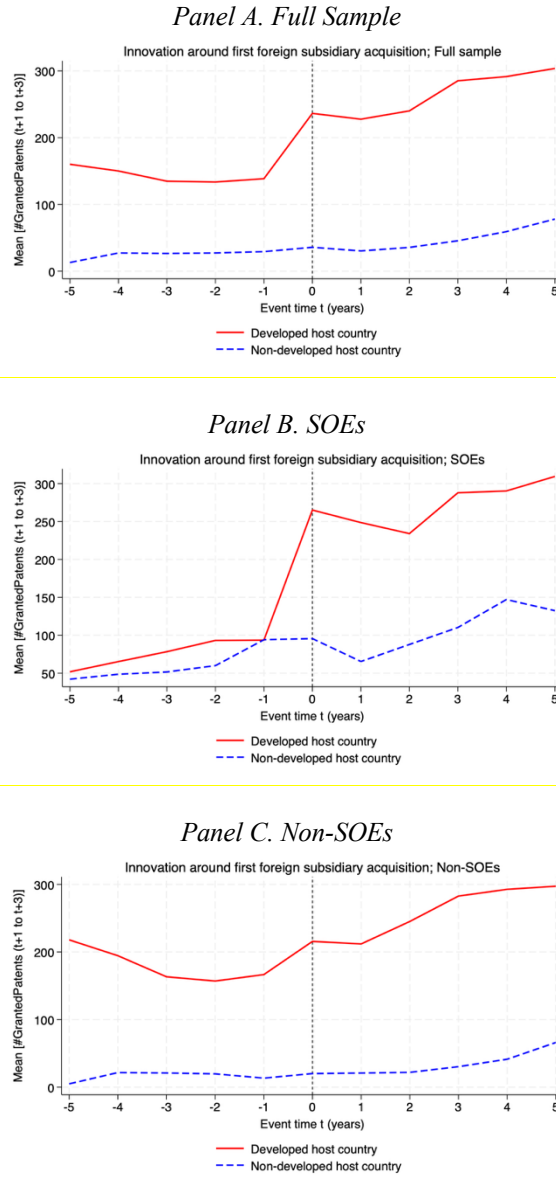
Notes: This figure plots the evolution of China's global ownership, segmented by world regions. The data includes non-financial, non-Chinese "Very Large" firms from Orbis (2012-2021). Firms based in mainland China, Hong Kong, Macau, or with "golden shares" are excluded. Assets are winsorized at the 1st and 99th percentiles and aggregated within the respective region. CNOwn with control identifies firms whose largest direct shareholders with at least 10% ownership or ultimate shareholders (UO10) are Chinese entities (mainland China, Hong Kong, Macau, or with "golden shares"). The regions analyzed include Asia (excluding China), Europe, North America, and the Rest of the World (Africa, Oceania, and South America). Country classifications by region are detailed in Table A3 of the Appendix. Interpret data for North America cautiously, as Orbis provides complete information predominantly for publicly listed firms in the US and Canada.

**Figure 5. China's Global Control: SOE vs Private**



Notes: This figure plots the evolution of China's global ownership, segmented into state-owned enterprises (SOEs) and private firms. The data includes non-financial, non-Chinese "Very Large" firms from Orbis (2012-2021). Firms based in mainland China, Hong Kong, Macau, or with "golden shares" are excluded. Assets are winsorized at the 1st and 99th percentiles and aggregated. CNOwn with control identifies firms whose largest direct shareholders with at least 10% ownership or ultimate shareholders (UO10) are Chinese entities (mainland China, Hong Kong, Macau, or with "golden shares"); CNOwn\*SOE with control identifies the largest direct ( $\geq 10\%$ ) or ultimate ownership by Chinese government entities (UO25); CNOwn\*Pvt denotes private Chinese ownership, indicating non-SOE Chinese ownership. Absolute asset values (million USD) are displayed on the left Y-axis, while the percentages of global control are represented on the right Y-axis.

**Figure 6. Granted Patents Surrounding Foreign Acquisitions**



Notes: This figure plots the evolution of Chinese firms' patenting activities surrounding foreign acquisitions, specifically measuring the number of patents applied for by the firm within the following three years that are eventually granted. The data includes non-financial, Chinese "Very Large" firms from Orbis (2012-2021). Chinese firms include firms based in mainland China, Hong Kong, and Macau. Foreign acquisitions are identified using *CNOwn* with control, which identifies firms whose largest direct shareholders with at least 10% ownership or ultimate shareholders (UO10) are Chinese entities. Foreign acquisitions are categorized into those in developed host countries and those in non-developed host countries. Year  $t_0$  is the year when the first foreign acquisition in the respective group is made. Panel A reports the pattern for the full sample, Panel B for the SOEs, and Panel C for the non-SOEs.

## Appendix

**Table A1. Variable definition.**

Variable	Definition
CNOwn, Control, Broad	CNOwn = 1 if one of the firm's direct or ultimate shareholders (i.e., UO10) is a Chinese company and if there is a direct shareholder, the direct shareholder is also the largest shareholder with at least 10% cashflow rights. Chinese companies include firms incorporated or domiciling in China, Hong Kong, or Macau, as well as golden share firms.
CNOwn, Control, Narrow	CNOwn = 1 if one of the firm's direct or ultimate shareholders (i.e., UO10) is a Chinese company and if there is a direct shareholder, the direct shareholder is also the largest shareholder with at least 10% cashflow rights. Under the narrow definition, only firms incorporated or domiciling in China are treated as Chinese firms.
CNOwn, Ownership, Broad	CNOwn = 1 if one of the firm's direct or ultimate shareholders (i.e., UO10) is a Chinese company. Chinese companies include firms incorporated or domiciling in China, Hong Kong, or Macau, as well as golden share firms.
CNOwn, Ownership, Narrow	CNOwn = 1 if one of the firm's direct or ultimate shareholders (i.e., UO10) is a Chinese company. Under the narrow definition, only firms incorporated or domiciling in China are treated as Chinese firms.
CNOwn*SOE, Control, Broad	CNOwn*SOE = 1 if one of the firm's direct or ultimate shareholders (i.e., UO25) is a Chinese government agency and if there is a direct shareholder, the direct shareholder is also the largest shareholder with at least 10% cashflow rights. Chinese government agencies include entities incorporated or domiciling in China and labeled as "Public authority, state, government" by Orbis.
CNOwn*SOE, Control, Narrow	CNOwn*SOE = 1 if one of the firm's direct or ultimate shareholders (i.e., UO25) is a Chinese government agency and if there is a direct shareholder, the direct shareholder is also the largest shareholder with at least 10% cashflow rights. Under the narrow definition, only firms incorporated or domiciling in China are treated as Chinese firms.
CNOwn*SOE, Ownership, Broad	CNOwn*SOE = 1 if one of the firm's direct or ultimate shareholders (i.e., UO25) is a Chinese government agency. Chinese government agencies include entities incorporated or domiciling in China and labeled as "Public authority, state, government" by Orbis. Broad definition includes Hong Kong, Macau, and golden share firms.
CNOwn*SOE, Ownership, Narrow	CNOwn*SOE = 1 if one of the firm's direct or ultimate shareholders (i.e., UO25) is a Chinese government agency. Narrow definition includes only firms incorporated or domiciling in China.
US_Owned, Control	US_Owned = 1 if one of the firm's direct or ultimate shareholders (i.e., UO10) is a US company and if there is a direct shareholder, the direct shareholder is the largest shareholder with at least 10% cashflow rights.
US_Owned, Ownership	US_Owned = 1 if one of the firm's direct or ultimate shareholders (i.e., UO10) is a US company.
JP_Owned, Control	JP_Owned = 1 if one of the firm's direct or ultimate shareholders (i.e., UO10) is a Japanese company and if there is a direct shareholder, the direct shareholder is the largest shareholder with at least 10% cashflow rights.
JP_Owned, Ownership	JP_Owned = 1 if one of the firm's direct or ultimate shareholders (i.e., UO10) is a Japanese company.
IN_Owned, Control	IN_Owned = 1 if one of the firm's direct or ultimate shareholders (i.e., UO10) is an Indian company and if there is a direct shareholder, the direct shareholder is the largest shareholder with at least 10% cashflow rights.
IN_Owned, Ownership	IN_Owned = 1 if one of the firm's direct or ultimate shareholders (i.e., UO10) is an Indian company.
Log(1+R&D), Dropped if Missing	R&D expenses are winsorized at the 1st and 99th percentiles and log-transformed. R&D is deleted if missing.
Log(1+R&D), R&D=0 if Missing	R&D expenses are winsorized at the 1st and 99th percentiles and log-transformed. R&D is treated as zero if missing.
Blank_R&D	A binary variable that equals one if R&D expenses are not reported for a firm in a given year.
#GrantedPatents	The number of granted patents in the following three years. Duplicate applications in multiple jurisdictions are treated as one application, and jointly applied patents are fractionally attributed across firms.

Log(1+Assets)	Total assets are winsorized at the 1st and 99th percentiles and log-transformed.
Log(1+Fixed)	Fixed assets are winsorized at the 10th and 90th percentiles and log-transformed.
Log(1+Debts)	Total debts, defined as the summation of long-term debt, loans, and creditors, are winsorized at the 1st and 99th percentiles and log-transformed.
ROA Using P/L before tax (%)	Return on assets is calculated using profit and loss before tax, and winsorized at the 1st and 99th percentiles.
TFP	TFP is the exponential of the residuals of regressing Log(1+VA) on Log(1+Fixed) and Log(1+Empl). Log(1+VA), log(1+Fixed), and log(1+Empl) are the natural logarithms of value added, fixed assets, and employment, respectively. Value added is imputed as the summation of factor incomes going to employees (costs of employees) and to capital owners (EBITDA) when the value added variable in Orbis is missing. The regressions are conducted for each of the NACE Rev.2 2-digit sector using data up to each year.
Log(1+Empl)	Employment is winsorized at the 1st and 99th percentiles and log-transformed.
CNCustomer	Equals one if the firm is recorded as a customer of a source company in China (ISIN starts with CN, HK, MO) or a source company with CNOwn = 1 (broad definition and Control), zero if the firm is other country's customer or is not a customer, missing if the firm does not have customer information up to year t, based on FactSet Revere. Customers are firms listed in FactSet as (i) purchasing goods or services from a source company or (ii) to whom a source company licenses products, patents, intellectual property, and technology.
CNSupplier	Equals one if the firm is recorded as a supplier to a source company in China (ISIN starts with CN, HK, MO) or a source company with CNOwn = 1 (broad definition and Control), zero if the firm is other country's supplier or is not a supplier, missing if the firm does not have supplier information up to year t, based on FactSet Revere. Suppliers are firms recorded in FactSet as: (i) selling goods or services to a source company; (ii) providing paid manufacturing services; (iii) offering paid marketing, branding, or advertising services; (iv) receiving payment from a source company for distribution services; or (v) from whom a source company licenses products, patents, intellectual property, or technology.
USCcustomer	Equals one if the firm is recorded as a customer of a source company in the US (ISIN starts with US) or a source company with USOwn = 1 (Control), zero if the firm is other country's customer or is not a customer, missing if the firm does not have customer information up to year t, based on FactSet Revere. Customers are firms listed in FactSet as (i) purchasing goods or services from a source company or (ii) to whom a source company licenses products, patents, intellectual property, and technology.
USSupplier	Equals one if the firm is recorded as a supplier to a source company in the US (ISIN starts with US) or a source company with USOwn = 1 (Control), zero if the firm is other country's supplier or is not a supplier, missing if the firm does not have supplier information up to year t, based on FactSet Revere. Suppliers are firms recorded in FactSet as: (i) selling goods or services to a source company; (ii) providing paid manufacturing services; (iii) offering paid marketing, branding, or advertising services; (iv) receiving payment from a source company for distribution services; or (v) from whom a source company licenses products, patents, intellectual property, or technology.
JPCustomer	Equals one if the firm is recorded as a customer of a source company in Japan (ISIN starts with JP) or a source company with JPOwn = 1 (Control), zero if the firm is other country's customer or is not a customer, missing if the firm does not have customer information up to year t, based on FactSet Revere. Customers are firms listed in FactSet as (i) purchasing goods or services from a source company or (ii) to whom a source company licenses products, patents, intellectual property, and technology.
JPSupplier	Equals one if the firm is recorded as a supplier to a source company in Japan (ISIN starts with JP) or a source company with JPOwn = 1 (Control), zero if the firm is other country's supplier or is not a supplier, missing if the firm does not have supplier information up to year t, based on FactSet Revere. Suppliers are firms recorded in FactSet as: (i) selling goods or services to a source company; (ii) providing paid manufacturing services; (iii) offering paid marketing, branding, or advertising services; (iv) receiving payment from a source company for distribution services; or (v) from whom a source company licenses products, patents, intellectual property, or technology.

INCustomer	Equals one if the firm is recorded as a customer of a source company in India (ISIN starts with IN) or a source company with INOwn = 1 (Control), zero if the firm is other country's customer or is not a customer, missing if the firm does not have customer information up to year t, based on FactSet Revere. Customers are firms listed in FactSet as (i) purchasing goods or services from a source company or (ii) to whom a source company licenses products, patents, intellectual property, and technology.
INSupplier	Equals one if the firm is recorded as a supplier to a source company in India (ISIN starts with IN) or a source company with INOwn = 1 (Control), zero if the firm is other country's supplier or is not a supplier, missing if the firm does not have supplier information up to year t, based on FactSet Revere. Suppliers are firms recorded in FactSet as: (i) selling goods or services to a source company; (ii) providing paid manufacturing services; (iii) offering paid marketing, branding, or advertising services; (iv) receiving payment from a source company for distribution services; or (v) from whom a source company licenses products, patents, intellectual property, or technology.
Customer	Equals one if the firm is recorded as a customer of a source company, zero if the firm is not a customer, missing if the firm does not have customer information up to year t, based on FactSet Revere. Customers are firms listed in FactSet as (i) purchasing goods or services from a source company or (ii) to whom a source company licenses products, patents, intellectual property, and technology.
Supplier	Equals one if the firm is recorded as a supplier to a source company, zero if the firm is not a supplier, missing if the firm does not have supplier information up to year t, based on FactSet Revere. Suppliers are firms recorded in FactSet as: (i) selling goods or services to a source company; (ii) providing paid manufacturing services; (iii) offering paid marketing, branding, or advertising services; (iv) receiving payment from a source company for distribution services; or (v) from whom a source company licenses products, patents, intellectual property, or technology.
Log(1+OpeRev)	Operating revenue is winsorized and log-transformed. Source: Orbis Financials.
Log(1+Sales)	Sales are winsorized and log-transformed. Source: Orbis Financials.
CashFlow/Assets	Ratio of cash flow to assets, winsorized at the 1st and 99th percentiles.
P/L/Assets	Profit and loss before tax divided by total assets, winsorized at the 1st and 99th percentiles.
HHI*HHI	Square of the Herfindahl-Hirschman Index (HHI) at the country-industry-year level based on firm-level sales.
HHI	Herfindahl-Hirschman Index at the country-industry-year level based on firm-level sales.
ln(1+ΣCNOwn*Assets), Control, Broad	$CNOwn\_Assets = CNOwn \times Assets$ , aggregated at the country-sector-year level where CNOwn is defined under the Control-broad definition. The variable is log-transformed after winsorization.
ln(1+ΣCNOwn*Assets), Control, Narrow	$CNOwn\_Assets = CNOwn \times Assets$ , aggregated at the country-sector-year level where CNOwn is defined under the Control-narrow definition. The variable is log-transformed after winsorization.
ln(1+ΣCNOwn*Assets), Ownership, Broad	$CNOwn\_Assets = CNOwn \times Assets$ , aggregated at the country-sector-year level where CNOwn is defined under the ownership-broad definition. The variable is log-transformed after winsorization.
ln(1+ΣCNOwn*Assets), Ownership, Narrow	$CNOwn\_Assets = CNOwn \times Assets$ , aggregated at the country-sector-year level where CNOwn is defined under the ownership-narrow definition. The variable is log-transformed after winsorization.
ln(1+ΣCNOwn*Pvt*Assets), Control, Broad	$CNOwn*Pvt\_Assets = (CNOwn - CNOwn*SOE) \times Assets$ , aggregated at the country-sector-year level where ownership is defined under the Control-broad definition. The variable is log-transformed after winsorization.
ln(1+ΣCNOwn*Pvt*Assets), Control, Narrow	$CNOwn*Pvt\_Assets = (CNOwn - CNOwn*SOE) \times Assets$ , aggregated at the country-sector-year level under the Control-narrow definition. The variable is log-transformed after winsorization.
ln(1+ΣCNOwn*Pvt*Assets), Ownership, Broad	$CNOwn*Pvt\_Assets = (CNOwn - CNOwn*SOE) \times Assets$ , aggregated at the country-sector-year level under the ownership-broad definition. The variable is log-transformed after winsorization.
ln(1+ΣCNOwn*Pvt*Assets), Ownership, Narrow	$CNOwn*Pvt\_Assets = (CNOwn - CNOwn*SOE) \times Assets$ , aggregated at the country-sector-year level under the ownership-narrow definition. The variable is log-transformed after winsorization.
ln(1+ΣCNOwn*SOE*Assets), Control, Broad	$CNOwn*SOE\_Assets = CNOwn*SOE \times Assets$ , aggregated at the country-sector-year level where ownership is defined under the Control-broad definition. The variable is log-transformed after winsorization.
ln(1+ΣCNOwn*SOE*Assets), Control, Narrow	$CNOwn*SOE\_Assets = CNOwn*SOE \times Assets$ , aggregated at the country-sector-year level under the Control-narrow definition. The variable is log-transformed after winsorization.

$\ln(1+\sum \text{CNOwn}*\text{SOE}*\text{Assets})$ , Ownership, Broad	$\text{CNOwn}*\text{SOE\_Assets} = \text{CNOwn}*\text{SOE} \times \text{Assets}$ , aggregated at the country-sector-year level under the ownership-broad definition. The variable is log-transformed after winsorization.
$\ln(1+\sum \text{CNOwn}*\text{SOE}*\text{Assets})$ , Ownership, Narrow	$\text{CNOwn}*\text{SOE\_Assets} = \text{CNOwn}*\text{SOE} \times \text{Assets}$ , aggregated at the country-sector-year level under the ownership-narrow definition. The variable is log-transformed after winsorization.
$\% \text{CNOwn}*\text{Assets}$ , Control, Broad	$\text{CNOwn\_Assets} = \text{CNOwn} \times \text{Assets}$ , aggregated at the country-sector-year level where CNOwn is defined under the Control-broad definition. The variable is log-transformed after winsorization.
$\% \text{CNOwn}*\text{Assets}$ , Control, Narrow	$\text{CNOwn\_Assets} = \text{CNOwn} \times \text{Assets}$ , aggregated at the country-sector-year level where CNOwn is defined under the Control-narrow definition. The variable is log-transformed after winsorization.
$\% \text{CNOwn}*\text{Assets}$ , Ownership, Broad	$\text{CNOwn\_Assets} = \text{CNOwn} \times \text{Assets}$ , aggregated at the country-sector-year level where CNOwn is defined under the ownership-broad definition. The variable is log-transformed after winsorization.
$\% \text{CNOwn}*\text{Assets}$ , Ownership, Narrow	$\text{CNOwn\_Assets} = \text{CNOwn} \times \text{Assets}$ , aggregated at the country-sector-year level where CNOwn is defined under the ownership-narrow definition. The variable is log-transformed after winsorization.
$\% \text{CNOwn}*\text{Pvt}*\text{Assets}$ , Control, Broad	$\text{CNOwn}*\text{Pvt\_Assets} = (\text{CNOwn} - \text{CNOwn}*\text{SOE}) \times \text{Assets}$ , aggregated at the country-sector-year level where ownership is defined under the Control-broad definition. The variable is log-transformed after winsorization.
$\% \text{CNOwn}*\text{Pvt}*\text{Assets}$ , Control, Narrow	$\text{CNOwn}*\text{Pvt\_Assets} = (\text{CNOwn} - \text{CNOwn}*\text{SOE}) \times \text{Assets}$ , aggregated at the country-sector-year level under the Control-narrow definition. The variable is log-transformed after winsorization.
$\% \text{CNOwn}*\text{Pvt}*\text{Assets}$ , Ownership, Broad	$\text{CNOwn}*\text{Pvt\_Assets} = (\text{CNOwn} - \text{CNOwn}*\text{SOE}) \times \text{Assets}$ , aggregated at the country-sector-year level under the ownership-broad definition. The variable is log-transformed after winsorization.
$\% \text{CNOwn}*\text{Pvt}*\text{Assets}$ , Ownership, Narrow	$\text{CNOwn}*\text{Pvt\_Assets} = (\text{CNOwn} - \text{CNOwn}*\text{SOE}) \times \text{Assets}$ , aggregated at the country-sector-year level under the ownership-narrow definition. The variable is log-transformed after winsorization.
$\% \text{CNOwn}*\text{SOE}*\text{Assets}$ , Control, Broad	$\text{CNOwn}*\text{SOE\_Assets} = \text{CNOwn}*\text{SOE} \times \text{Assets}$ , aggregated at the country-sector-year level where ownership is defined under the Control-broad definition. The variable is log-transformed after winsorization.
$\% \text{CNOwn}*\text{SOE}*\text{Assets}$ , Control, Narrow	$\text{CNOwn}*\text{SOE\_Assets} = \text{CNOwn}*\text{SOE} \times \text{Assets}$ , aggregated at the country-sector-year level under the Control-narrow definition. The variable is log-transformed after winsorization.
$\% \text{CNOwn}*\text{SOE}*\text{Assets}$ , Ownership, Broad	$\text{CNOwn}*\text{SOE\_Assets} = \text{CNOwn}*\text{SOE} \times \text{Assets}$ , aggregated at the country-sector-year level under the ownership-broad definition. The variable is log-transformed after winsorization.
$\% \text{CNOwn}*\text{SOE}*\text{Assets}$ , Ownership, Narrow	$\text{CNOwn}*\text{SOE\_Assets} = \text{CNOwn}*\text{SOE} \times \text{Assets}$ , aggregated at the country-sector-year level under the ownership-narrow definition. The variable is log-transformed after winsorization.
$\text{Log}(1+\sum \text{Assets})$	Total assets are aggregated at the country-sector-year level and log-transformed. Source: Orbis Financials.
$\text{Log}(1+\sum \text{Fixed})$	Fixed assets are aggregated at the country-sector-year level and log-transformed. Source: Orbis Financials.
$\text{Log}(1+\sum \text{Debts})$	Total debts (long-term debt, loans, and creditors) are aggregated at the country-sector-year level and log-transformed. Source: Orbis Financials.
$\text{Log}(1+\sum \text{R\&D})$	R&D expenses are treated as zero if missing, aggregated at the country-sector-year level, and log-transformed. Source: Orbis Financials.
Blank_RD (country-sector)	A binary variable that equals one if no firm in a given country-sector-year reports non-missing R&D expenses. Source: Orbis Financials.
$\text{Log}(1+\sum \text{EMPL})$	Employment is aggregated at the country-sector-year level and log-transformed. Source: Orbis Financials.
$\text{Log}(1+\sum \text{Assets\_NonCN})$	Total assets of firms that are never owned by any types of Chinese entities throughout our sample period are aggregated at the country-sector-year level and log-transformed. Source: Orbis Financials.
II_CN/II	Intermediate outputs to Chinese industries over the total intermediate outputs for each country-sector-year. Source: OECD Input-Output Tables.
IO_CN/IO	Intermediate inputs from Chinese industries over the total intermediate inputs for each country-sector-year. Source: OECD Input-Output Tables.
Nature_Resources_Rent_Country	Natural resource rents as a percentage of GDP for each country-year. Source: World Bank.
Agriculture, hunting, forestry (indicator)	Equals one if the industry's 2-digit ISIC Rev. 4 code is 01 or 02.
Mining&quarrying - energy (indicator)	Equals one if the industry's 2-digit ISIC Rev. 4 code is 05 or 06.

Mining&quarrying - non-energy (indicator)	Equals one if the industry's 2-digit ISIC Rev. 4 code is 07 or 08.
Mining support service activities (indicator)	Equals one if the industry's 2-digit ISIC Rev. 4 code is 09.

**Table A2. NACE Rev. 2 sectors targeted by "Made in China 2025" (MIC2025).**

MIC Targeted Sector	NACE	Name	Description
Advanced rail equipment	302	Railway locomotives and rolling stock	Direct match to advanced rail equipment priority.
Aerospace & aviation equipment	265	Instruments for measuring, testing & navigation; watches & clocks	Precision instruments and navigation systems essential to avionics & aerospace.
	303	Air & spacecraft and related machinery	Direct match to aerospace & aviation equipment priority (incl. space).
	613	Satellite telecommunications activities	Space-based comms rely on spacecraft; downstream of aerospace priority.
Agricultural machinery & equipment	283	Agricultural and forestry machinery	Direct match to agricultural machinery priority.
Biomedicine & high-performance medical devices	211	Basic pharmaceutical products	Upstream pharma inputs for domestic biomedicine value chain.
	212	Pharmaceutical preparations	Drug manufacturing—core to biomedicine push.
	266	Irradiation, electromedical & electrotherapeutic equipment	Electromedical imaging/therapy devices—explicit MIC medical device focus.
	267	Optical instruments & photographic equipment	Optics for endoscopy, diagnostics and precision instruments.
	325	Medical and dental instruments & supplies	Medical instruments & disposables—part of high-performance medical devices.
	861	Hospital activities	Clinical demand-pull and deployment site for advanced medical devices.
	862	Medical and dental practice activities	Physician/dental users & buyers of domestic medical devices.
	869	Other human health activities	Other healthcare services using diagnostics & devices.
Electrical equipment (power equipment & smart grid)	252	Tanks, reservoirs & containers of metal	Pressure vessels & large metal containers used in power/energy plant equipment.
	253	Steam generators, except central heating hot-water boilers	Boilers/steam generators are key balance-of-plant for power equipment.
	271	Electric motors, generators, transformers & distribution/control apparatus	Motors/transformers/switchgear for smart grid and advanced equipment.
	272	Batteries and accumulators	Batteries—core to NEVs, grid storage and electronics.
	273	Wiring and wiring devices	Cables & wiring devices for grid, rail, aerospace and factories.
	274	Electric lighting equipment	Lighting (including LED) is part of efficient electrical equipment.
	279	Other electrical equipment	Power equipment sub-systems not elsewhere classified.
	351	Electric power generation, transmission & distribution	Grid operations that drive/absorb domestic power-equipment innovation (UHV, smart grid).
	352	Manufacture of gas; distribution of gaseous fuels via mains	Gas infrastructure complements energy equipment & industrial efficiency goals.
	353	Steam and air conditioning supply	Thermal/steam utilities linked to industrial energy efficiency and CHP equipment.

Energy-saving & new-energy vehicles (NEVs)	291	Motor vehicles	Vehicle platforms targeted for electrification & efficiency (NEVs).
	292	Bodies (coachwork) for motor vehicles; trailers & semi-trailers	Bodies/trailers integrate lightweight materials & EV platforms.
	293	Parts and accessories for motor vehicles	Domestic auto parts capability incl. e-drive, power electronics.
	309	Other transport equipment n.e.c. (incl. motorcycles, bicycles)	Two-wheelers & other transport moving to electrification (NEVs ecosystem).
High-end numerically controlled (NC) machine tools & robots	281	General-purpose machinery	General machinery base for upgrading to high-end NC equipment.
	282	Other general-purpose machinery	Other general-purpose machinery used across automated production lines.
	284	Metal forming machinery & machine tools	Direct match to high-end NC machine tools; foundation of smart manufacturing.
	289	Other special-purpose machinery	Robotics and special-purpose machinery fit the NC tools & robots priority.
Maritime engineering equipment & high-tech ships	301	Building of ships and boats	High-tech ships & offshore engineering equipment are an explicit priority.
New materials	201	Basic chemicals, fertilisers, plastics & synthetic rubber (primary forms)	Feeds advanced materials (polymers, basic chemicals) for composites, semiconductors & batteries.
	203	Paints, varnishes, printing ink & mastics	Functional coatings, inks and mastics used in electronics, autos, rail and machinery.
	205	Other chemical products	Speciality chemicals (e.g., additives, electrolytes) underpin new materials and devices.
	206	Man-made fibres	High-performance fibres for aerospace, rail, autos and protective equipment.
	231	Glass and glass products	Technical glass (e.g., display, optical, PV) is a priority new material.
	232	Refractory products	Advanced refractories for high-temp processes in steel, glass, energy equipment.
	233	Clay building materials	Engineered ceramics/bricks relevant for new-material and green construction technologies.
	234	Other porcelain and ceramic products	Technical ceramics for electronics, medical devices, energy equipment.
	235	Cement, lime and plaster	Cement/lime/plaster—materials platform; target is high-performance & green variants.
	236	Articles of concrete, cement and plaster	Pre-cast/engineered articles tie to high-performance materials and smart construction.
	237	Cutting, shaping and finishing of stone	Processed stone used in precision bases, optics and engineered structures.
	239	Abrasive products & other non-metallic mineral products n.e.c.	Abrasives & other mineral materials used in polishing, batteries, electronics.
	244	Basic precious & other non-ferrous metals	Non-ferrous metals (e.g., Al, Cu, Ti) critical for aerospace, NEVs, grid equipment.
721	R&D on natural sciences & engineering	R&D on materials & engineering feeding semiconductors, composites, batteries.	

New-generation information technology	261	Electronic components and boards	Chips & components—backbone of next-gen IT and smart manufacturing.
	262	Computers and peripheral equipment	Computing hardware platform for digital manufacturing & AI.
	263	Communication equipment	Telecom gear integral to 5G/industrial internet.
	264	Consumer electronics	End-use electronics; testbed for domestic components and platforms.
	268	Magnetic and optical media	Data storage media supporting domestic IT stack.
	582	Software publishing	Domestic software ecosystems/platforms for industrial digitalization.
	620	Computer programming, consultancy & related activities	Software & IT services enabling industrial internet and AI applications.
	631	Data processing, hosting & related activities; web portals	Cloud/data infrastructure supporting smart manufacturing.

**Table A3. List of regions.**

Notes: AF - Africa, AN - Antartica, AS - Asia, OC - Oceania, EU - Europe, NA - North America, SA - South America. The list of tax havens comes from Coppola et al. (2021) with the addition of Switzerland (<https://globalcapitalallocation.s3.us-east-2.amazonaws.com/CMNS-Appendix.pdf>).

Continent	ISO 2	Name	IsTaxHaven
AF	DZ	Algeria	0
AF	AO	Angola	0
AF	BJ	Benin	0
AF	BW	Botswana	0
AF	BF	Burkina Faso	0
AF	BI	Burundi	0
AF	CM	Cameroon	0
AF	CV	Cape Verde	0
AF	CF	Central African Republic	0
AF	TD	Chad	0
AF	KM	Comoros	0
AF	CG	Congo	0
AF	CD	Congo, the Democratic Republic of the	0
AF	CI	Côte d'Ivoire	0
AF	DJ	Djibouti	1
AF	EG	Egypt	0
AF	GQ	Equatorial Guinea	0
AF	ER	Eritrea	0
AF	ET	Ethiopia	0
AF	GA	Gabon	0
AF	GM	Gambia	0
AF	GH	Ghana	0
AF	GN	Guinea	0
AF	GW	Guinea-Bissau	0
AF	KE	Kenya	0
AF	LS	Lesotho	0
AF	LR	Liberia	1
AF	LY	Libyan Arab Jamahiriya	0
AF	MG	Madagascar	0
AF	MW	Malawi	0
AF	ML	Mali	0
AF	MR	Mauritania	0
AF	MU	Mauritius	1
AF	YT	Mayotte	0
AF	MA	Morocco	0
AF	MZ	Mozambique	0
AF	NA	Namibia	0
AF	NE	Niger	0
AF	NG	Nigeria	0
AF	RE	Réunion	0
AF	RW	Rwanda	0
AF	SH	Saint Helena	0
AF	ST	Sao Tome and Principe	0
AF	SN	Senegal	0
AF	SC	Seychelles	1
AF	SL	Sierra Leone	0
AF	SO	Somalia	0
AF	ZA	South Africa	0

AF	SS	South Sudan	0
AF	SD	Sudan	0
AF	SZ	Swaziland	0
AF	TZ	Tanzania, United Republic of	0
AF	TG	Togo	0
AF	TN	Tunisia	0
AF	UG	Uganda	0
AF	EH	Western Sahara	0
AF	ZM	Zambia	0
AF	ZW	Zimbabwe	0
AN	AQ	Antarctica	0
AN	BV	Bouvet Island	0
AN	TF	French Southern Territories	0
AN	HM	Heard Island and McDonald Islands	0
AN	GS	South Georgia and the South Sandwich Islands	0
AS	AF	Afghanistan	0
AS	AM	Armenia	0
AS	AZ	Azerbaijan	0
AS	BH	Bahrain	1
AS	BD	Bangladesh	0
AS	BT	Bhutan	0
AS	IO	British Indian Ocean Territory	0
AS	BN	Brunei Darussalam	0
AS	KH	Cambodia	0
AS	CN	China	0
AS	CX	Christmas Island	0
AS	CC	Cocos (Keeling) Islands	0
AS	CY	Cyprus	1
AS	GE	Georgia	0
AS	HK	Hong Kong	1
AS	IN	India	0
AS	ID	Indonesia	0
AS	IR	Iran, Islamic Republic of	0
AS	IQ	Iraq	0
AS	IL	Israel	0
AS	JP	Japan	0
AS	JO	Jordan	1
AS	KZ	Kazakhstan	0
AS	KP	Korea, Democratic People's Republic of	0
AS	KR	Korea, Republic of	0
AS	KW	Kuwait	0
AS	KG	Kyrgyzstan	0
AS	LA	Lao People's Democratic Republic	0
AS	LB	Lebanon	1
AS	MO	Macao	1
AS	MY	Malaysia	0
AS	MV	Maldives	1
AS	MN	Mongolia	0
AS	MM	Myanmar	0
AS	NP	Nepal	0
AS	OM	Oman	0
AS	PK	Pakistan	0
AS	PS	Palestinian Territory, Occupied	0

AS	PH	Philippines	0
AS	QA	Qatar	0
AS	SA	Saudi Arabia	0
AS	SG	Singapore	1
AS	LK	Sri Lanka	0
AS	SY	Syrian Arab Republic	0
AS	TW	Taiwan, Province of China	0
AS	TJ	Tajikistan	0
AS	TH	Thailand	0
AS	TL	Timor-Leste	0
AS	TM	Turkmenistan	0
AS	AE	United Arab Emirates	0
AS	UZ	Uzbekistan	0
AS	VN	Vietnam	0
AS	YE	Yemen	0
EU	AX	Åland Islands	0
EU	AL	Albania	0
EU	AD	Andorra	1
EU	AT	Austria	0
EU	BY	Belarus	0
EU	BE	Belgium	0
EU	BA	Bosnia and Herzegovina	0
EU	BG	Bulgaria	0
EU	HR	Croatia	0
EU	CZ	Czech Republic	0
EU	DK	Denmark	0
EU	EE	Estonia	0
EU	FO	Faroe Islands	0
EU	FI	Finland	0
EU	FR	France	0
EU	DE	Germany	0
EU	GI	Gibraltar	1
EU	GR	Greece	0
EU	GG	Guernsey	1
EU	VA	Holy See (Vatican City State)	0
EU	HU	Hungary	0
EU	IS	Iceland	0
EU	IE	Ireland	1
EU	IM	Isle of Man	1
EU	IT	Italy	0
EU	JE	Jersey	1
EU	LV	Latvia	0
EU	LI	Liechtenstein	1
EU	LT	Lithuania	0
EU	LU	Luxembourg	1
EU	MK	Macedonia, the Former Yugoslav Republic of	0
EU	MT	Malta	1
EU	MD	Moldova, Republic of	0
EU	MC	Monaco	1
EU	ME	Montenegro	0
EU	NL	Netherlands	1
EU	NO	Norway	0
EU	PL	Poland	0

EU	PT	Portugal	0
EU	RO	Romania	0
EU	RU	Russian Federation	0
EU	SM	San Marino	1
EU	RS	Serbia	0
EU	SK	Slovakia	0
EU	SI	Slovenia	0
EU	ES	Spain	0
EU	SJ	Svalbard and Jan Mayen	0
EU	SE	Sweden	0
EU	CH	Switzerland	1
EU	TR	Turkey	0
EU	UA	Ukraine	0
EU	GB	United Kingdom	0
NA	AI	Anguilla	1
NA	AG	Antigua and Barbuda	1
NA	AW	Aruba	1
NA	BS	Bahamas	1
NA	BB	Barbados	1
NA	BZ	Belize	1
NA	BM	Bermuda	1
NA	BQ	Bonaire, Sint Eustatius and Saba	0
NA	CA	Canada	0
NA	KY	Cayman Islands	1
NA	CR	Costa Rica	1
NA	CU	Cuba	0
NA	CW	Curaçao	1
NA	DM	Dominica	1
NA	DO	Dominican Republic	0
NA	SV	El Salvador	0
NA	GL	Greenland	0
NA	GD	Grenada	1
NA	GP	Guadeloupe	0
NA	GT	Guatemala	0
NA	HT	Haiti	0
NA	HN	Honduras	0
NA	JM	Jamaica	0
NA	MQ	Martinique	0
NA	MX	Mexico	0
NA	MS	Montserrat	1
NA	NI	Nicaragua	0
NA	PA	Panama	1
NA	PR	Puerto Rico	0
NA	BL	Saint Barthélemy	0
NA	KN	Saint Kitts and Nevis	1
NA	LC	Saint Lucia	1
NA	MF	Saint Martin (French part)	1
NA	PM	Saint Pierre and Miquelon	0
NA	VC	Saint Vincent and the Grenadines	1
NA	SX	Sint Maarten (Dutch part)	0
NA	TT	Trinidad and Tobago	0
NA	TC	Turks and Caicos Islands	1
NA	US	United States	0

NA	VG	Virgin Islands, British	1
NA	VI	Virgin Islands, U.S.	0
OC	AS	American Samoa	0
OC	AU	Australia	0
OC	CK	Cook Islands	1
OC	FJ	Fiji	0
OC	PF	French Polynesia	0
OC	GU	Guam	0
OC	KI	Kiribati	0
OC	MH	Marshall Islands	1
OC	FM	Micronesia, Federated States of	1
OC	NR	Nauru	1
OC	NC	New Caledonia	0
OC	NZ	New Zealand	0
OC	NU	Niue	1
OC	NF	Norfolk Island	0
OC	MP	Northern Mariana Islands	0
OC	PW	Palau	0
OC	PG	Papua New Guinea	0
OC	PN	Pitcairn	0
OC	WS	Samoa	1
OC	SB	Solomon Islands	0
OC	TK	Tokelau	0
OC	TO	Tonga	1
OC	TV	Tuvalu	0
OC	UM	United States Minor Outlying Islands	0
OC	VU	Vanuatu	1
OC	WF	Wallis and Futuna	0
SA	AR	Argentina	0
SA	BO	Bolivia	0
SA	BR	Brazil	0
SA	CL	Chile	0
SA	CO	Colombia	0
SA	EC	Ecuador	0
SA	FK	Falkland Islands (Malvinas)	0
SA	GF	French Guiana	0
SA	GY	Guyana	0
SA	PY	Paraguay	0
SA	PE	Peru	0
SA	SR	Suriname	0
SA	UY	Uruguay	0
SA	VE	Venezuela	0

**Table A4. List of developed countries and emerging markets.**

Developed Countries		Emerging Markets	
EU's List	ISO2	EU's List	ISO2
Belgium	BE	Algeria	DZ
Bulgaria	BG	Egypt	EG
Czechia	CZ	Libya	LY
Denmark	DK	Mauritania	MR
Germany	DE	Morocco	MA
Estonia	EE	Sudan	SD
Ireland	IE	Tunisia	TN
Greece	EL	Cameroon	CM
Spain	ES	Central African Republic	CF
France	FR	Chad	TD
Croatia	HR	Congo	CG
Italy	IT	Equatorial Guinea	GQ
Cyprus	CY	Gabon	GA
Latvia	LV	Sao Tome and Principe	ST
Lithuania	LT	Burundi	BI
Luxembourg	LU	Comoros	KM
Hungary	HU	Democratic Republic of the Congo	CD
Malta	MT	Djibouti	DJ
Netherlands	NL	Eritrea	ER
Austria	AT	Ethiopia	ET
Poland	PL	Kenya	KE
Portugal	PT	Madagascar	MG
Romania	RO	Rwanda	RW
Slovenia	SI	Somalia	SO
Slovakia	SK	Uganda	UG
Finland	FI	United Republic of Tanzania	TZ
Sweden	SE	Angola	AO
Iceland	IS	Botswana	BW
Norway	NO	Lesotho	LS
Switzerland	CH	Malawi	MW
Australia	AU	Mauritius	MU
Canada	CA	Mozambique	MZ
Japan	JP	Namibia	NA
New Zealand	NZ	South Africa	ZA
United States	US	Zambia	ZM
France	FR	Zimbabwe	ZW
Germany	DE	Benin	BJ
Italy	IT	Burkina Faso	BF
United Kingdom	GB	Cabo Verde	CV
		Cote d'Ivoire	CI
<i>Additional</i>		Gambia	GM
Singapore	SG	Ghana	GH
Korea	KR	Guinea	GN
Taiwan	TW	Guinea-Bissau	GW
		Liberia	LR
		Mali	ML

Niger	NE
Nigeria	NG
Senegal	SN
Sierra Leone	SL
Togo	TG
Brunei Darussalam	BN
Indonesia	ID
Malaysia	MY
Myanmar	MM
Papua New Guinea	PG
Philippines	PH
Thailand	TH
Viet Nam	VN
Bangladesh	BD
India	IN
Iran (Islamic Republic of)	IR
Nepal	NP
Pakistan	PK
Sri Lanka	LK
Bahrain	BH
Iraq	IQ
Israel	IL
Jordan	JO
Kuwait	KW
Lebanon	LB
Oman	OM
Qatar	QA
Saudi Arabia	SA
Syrian Arab Republic	SY
Turkey	TR
United Arab Emirates	AE
Yemen	YE
Barbados	BB
Cuba	CU
Dominican Republic	DO
Guyana	GY
Haiti	HT
Jamaica	JM
Trinidad and Tobago	TT
Costa Rica	CR
El Salvador	SV
Guatemala	GT
Honduras	HN
Mexico	MX
Nicaragua	NI
Panama	PA
Argentina	AR
Bolivia (Plurinational State of)	BO
Brazil	BR

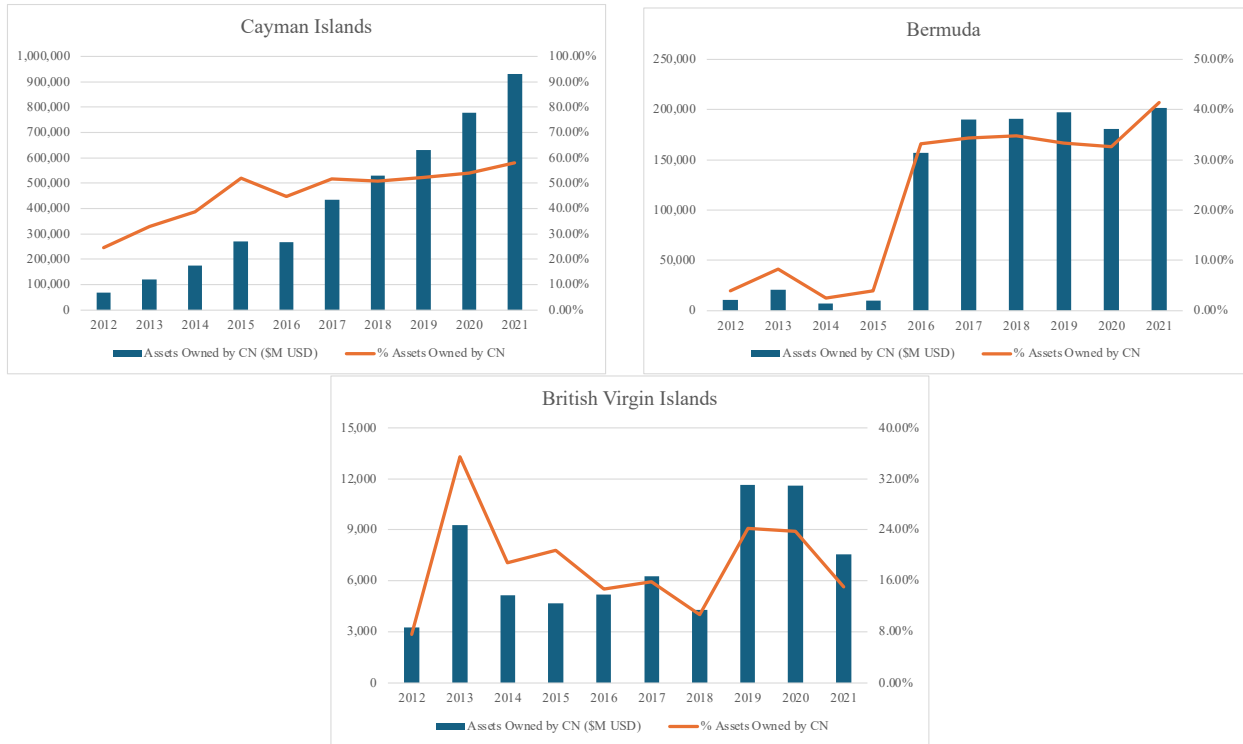
Chile	CL
Colombia	CO
Ecuador	EC
Paraguay	PY
Peru	PE
Uruguay	UY
Venezuela (Bolivarian Republic of)	VE

*Excluded*

China	CN
Hong Kong SAR	HK
Republic of Korea	KR
Singapore	SG
Taiwan	TW

---

**Figure A1. China's Ownership in Selected Tax Havens**



Notes: This figure plots the evolution of China's global ownership in the following three tax havens: Cayman Islands, Bermuda, and British Virgin Islands. The data includes non-financial, non-Chinese "Very Large" firms from Orbis (2012–2021). Firms based in mainland China, Hong Kong, Macau, or with "golden shares" are excluded. Assets are winsorized at the 1st and 99th percentiles and aggregated within the respective tax haven. CNOwn with control identifies firms whose largest direct shareholders with at least 10% ownership or ultimate shareholders (UO10) are Chinese entities (mainland China, Hong Kong, Macau, or with "golden shares"). Absolute asset values (million USD) are displayed on the left Y-axis, while the percentages of global control are represented on the right Y-axis.

**Table B1. China's Ownership and Innovation, R&D Deleted if Missing**

Note: This table presents OLS regression analyses examining the relationship between Chinese ownership and firm-level innovation, measured by the logarithm of non-missing R&D expenditures. CNOwn identifies firms whose direct or ultimate shareholders (UO10) are Chinese entities; CNOwn\*SOE identifies direct or ultimate ownership by Chinese government entities (UO25). With control, Chinese entities must be the largest direct shareholders with at least 10% ownership or ultimate shareholders. The narrow definition includes entities in mainland China, while the broad definition includes entities in mainland China, Hong Kong, Macau, or with "golden shares." Control variables are detailed in Table A1 of the Appendix. The sample covers the period from 2012 to 2021. Standard errors clustered at the firm level are in parentheses. Significance levels: \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

*Panel A: Overall**Log(1+R&D)*

	Ownership				Control			
	Narrow		Broad		Narrow		Broad	
CNOwn	0.165** (0.079)	0.213** (0.108)	0.123** (0.049)	0.178** (0.078)	0.266*** (0.095)	0.383*** (0.130)	0.178*** (0.065)	0.225** (0.100)
Log(1+Assets)		0.276*** (0.038)		0.276*** (0.038)		0.277*** (0.038)		0.276*** (0.038)
Log(1+Fixed)		0.003 (0.020)		0.004 (0.021)		0.002 (0.020)		0.004 (0.020)
Log(1+Debts)		0.003 (0.007)		0.003 (0.007)		0.003 (0.007)		0.003 (0.007)
Log(1+Sales)		0.091*** (0.030)		0.091*** (0.030)		0.090*** (0.030)		0.091*** (0.030)
Log(1+Empl)		0.331*** (0.040)		0.331*** (0.040)		0.332*** (0.040)		0.331*** (0.040)
Log(1+OpeRev)		0.019 (0.018)		0.019 (0.018)		0.019 (0.018)		0.019 (0.018)
ROA		-0.006*** (0.002)		-0.006*** (0.002)		-0.006*** (0.002)		-0.006*** (0.002)
P/L/Assets		0.059 (0.329)		0.059 (0.329)		0.058 (0.328)		0.065 (0.329)
CashFlow/Assets		-0.160 (0.264)		-0.157 (0.265)		-0.157 (0.264)		-0.161 (0.264)
HHI		-0.020 (0.156)		-0.022 (0.155)		-0.011 (0.156)		-0.020 (0.156)
HHI*HHI		0.000 (0.000)		0.000 (0.000)		0.000 (0.000)		0.000 (0.000)
Constant	6.012*** (0.002)	-0.645 (0.599)	6.010*** (0.002)	-0.653 (0.599)	6.011*** (0.002)	-0.641 (0.599)	6.010*** (0.002)	-0.655 (0.598)
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	198,969	75,510	198,969	75,510	198,969	75,510	198,969	75,510
R-squared	0.958	0.975	0.958	0.975	0.958	0.975	0.958	0.975

Panel B: SOE versus Private

	Ownership (Broad)			Control (Broad)		
	All	Developed	Emerging	All	Developed	Emerging
CNOwn	0.156** (0.078)	-0.015 (0.124)	0.116 (0.113)	0.191* (0.100)	-0.233 (0.154)	0.266 (0.185)
CNOwn*SOE	1.398** (0.610)	4.710* (2.777)	0.044 (0.118)	1.362** (0.614)	4.775* (2.769)	-0.052 (0.160)
Log(1+Assets)	0.275*** (0.038)	0.423*** (0.044)	0.133** (0.067)	0.276*** (0.038)	0.423*** (0.044)	0.133** (0.067)
Log(1+Fixed)	0.003 (0.021)	-0.040* (0.024)	-0.037 (0.034)	0.003 (0.020)	-0.040* (0.024)	-0.037 (0.034)
Log(1+Debts)	0.003 (0.007)	-0.003 (0.007)	0.006 (0.019)	0.003 (0.007)	-0.003 (0.007)	0.006 (0.019)
Log(1+Sales)	0.089*** (0.030)	0.118*** (0.036)	0.098 (0.064)	0.089*** (0.030)	0.118*** (0.036)	0.098 (0.064)
Log(1+Empl)	0.331*** (0.040)	0.422*** (0.059)	0.144*** (0.051)	0.331*** (0.040)	0.422*** (0.059)	0.144*** (0.051)
Log(1+OpeRev)	0.019 (0.018)	0.034** (0.017)	-0.054 (0.049)	0.019 (0.018)	0.034** (0.017)	-0.054 (0.049)
ROA	-0.006*** (0.002)	-0.007*** (0.002)	0.006 (0.007)	-0.006*** (0.002)	-0.007*** (0.002)	0.006 (0.007)
P/L/Assets	0.051 (0.329)	0.266 (0.393)	-1.863* (1.024)	0.056 (0.329)	0.267 (0.393)	-1.870* (1.025)
CashFlow/Assets	-0.147 (0.265)	-0.478 (0.317)	0.629 (0.823)	-0.150 (0.264)	-0.479 (0.317)	0.636 (0.823)
HHI	-0.018 (0.155)	-0.095 (0.342)	-0.114 (0.285)	-0.016 (0.155)	-0.093 (0.342)	-0.114 (0.285)
HHI*HHI	0.000 (0.000)	0.000 (0.000)	0.022 (0.048)	0.000 (0.000)	0.000 (0.000)	0.022 (0.048)
Constant	-0.613 (0.598)	0.552 (0.793)	-2.317** (0.921)	-0.616 (0.598)	0.552 (0.793)	-2.328** (0.922)
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	75,510	43,935	23,464	75,510	43,935	23,464
R-squared	0.975	0.969	0.901	0.975	0.969	0.901

**Table B2. China's Ownership and Innovation, Alternative Fixed Effects**

Note: This table presents OLS regression analyses examining the relationship between Chinese ownership and firm-level innovation, measured by the logarithm of R&D expenditures. Missing R&D expenditures are treated as zero and indicated by Blank\_R&D. CNOwn with control identifies firms whose largest direct shareholders with at least 10% ownership or ultimate shareholders (UO10) are Chinese entities (mainland China, Hong Kong, Macau, or with "golden shares"); CNOwn\*SOE with control identifies the largest direct ( $\geq 10\%$ ) or ultimate ownership by Chinese government entities (UO25). Control variables are detailed in Table A1 of the Appendix. The sample covers the period from 2012 to 2021. Standard errors clustered at the firm level are in parentheses. Significance levels: \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

	<i>Log(1+R&amp;D)</i>					
	Control (Broad)		Control (Broad)		Control (Broad)	
CNOwn	0.021 (0.045)	-0.002 (0.048)	0.084* (0.050)	0.061 (0.052)	0.019 (0.045)	-0.003 (0.048)
CNOwn*SOE		0.274** (0.126)		0.281** (0.134)		0.275** (0.129)
Log(1+Assets)	0.065*** (0.010)	0.065*** (0.010)	0.064*** (0.010)	0.064*** (0.010)	0.061*** (0.010)	0.061*** (0.010)
Log(1+Fixed)	-0.000 (0.004)	-0.000 (0.004)	0.006 (0.004)	0.006 (0.004)	-0.000 (0.004)	-0.000 (0.004)
Log(1+Debts)	0.000 (0.002)	0.000 (0.002)	0.001 (0.002)	0.001 (0.002)	-0.000 (0.002)	-0.000 (0.002)
Log(1+Sales)	0.029*** (0.007)	0.029*** (0.007)	0.024*** (0.007)	0.024*** (0.007)	0.029*** (0.007)	0.029*** (0.007)
Log(1+Empl)	0.075*** (0.009)	0.075*** (0.009)	0.060*** (0.009)	0.060*** (0.009)	0.073*** (0.009)	0.073*** (0.009)
Log(1+OpeRev)	0.018*** (0.006)	0.018*** (0.006)	0.025*** (0.006)	0.025*** (0.006)	0.017*** (0.006)	0.017*** (0.006)
ROA	-0.001** (0.001)	-0.001** (0.001)	-0.002*** (0.001)	-0.002*** (0.001)	-0.001** (0.001)	-0.001** (0.001)
P/L/Assets	0.076 (0.102)	0.075 (0.102)	0.019 (0.103)	0.018 (0.103)	0.084 (0.103)	0.083 (0.103)
CashFlow/Assets	-0.171* (0.095)	-0.170* (0.095)	-0.097 (0.097)	-0.096 (0.097)	-0.180* (0.096)	-0.179* (0.096)
HHI	0.027 (0.060)	0.027 (0.060)	-0.118* (0.067)	-0.119* (0.067)	0.075 (0.064)	0.075 (0.064)
HHI*HHI	-0.000 (0.000)	-0.000 (0.000)	0.000* (0.000)	0.000* (0.000)	-0.000 (0.000)	-0.000 (0.000)
Blank_R&D	-8.131*** (0.120)	-8.131*** (0.120)	-7.936*** (0.125)	-7.936*** (0.125)	-8.131*** (0.120)	-8.131*** (0.120)
Constant	5.754*** (0.185)	5.755*** (0.185)	5.559*** (0.191)	5.561*** (0.191)	5.831*** (0.187)	5.833*** (0.187)
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes
Country*Year FE	Yes	Yes	No	No	Yes	Yes
Sector*Year FE	No	No	Yes	Yes	Yes	Yes
Observations	437,675	437,675	436,251	436,251	436,042	436,042
R-squared	0.970	0.970	0.968	0.968	0.970	0.970