Reassessing the Role of State Ownership in China's Economy

Franklin Allen, Jun "QJ" Qian, Jeff Cai, et al. (2022). **Centralization or Decentralization? Evolution of State-Ownership in China.** Social Science Research Network working paper.

Existing measures of state-owned enterprises (SOEs) generate widespread inconsistencies in identifying state versus privately owned firms. By constructing a new measure of state ownership that captures the total state capital investment in firms, researchers reassess the role of SOEs in advancing China's economy.

The data. Researchers used the Firm Registration and Ownership Database from China's State Administration for Industry and Commerce (SAIC) to gather information on firms (i.e., registration capital, ownership type, and industry) and firm shareholders from 1950 to 2017. To compare firm ownership types, researchers also retrieved information from the Annual Industry Survey (AIS) published by China's National Bureau of Statistics and matched it with the SAIC data for a panel dataset of industrial firms and SOEs with financial information from 1999 to 2013.

By using information on the ownership networks of 40 million firms, researchers then create ownership "trees" to re-examine the state's role in China's economy. They first locate firms controlled by the central, provincial, and city governments and then trace ownership connections from these "root" firms based on firm-to-firm equity ownership ties to create a hierarchical network of firm ownership. Then, to ascertain the effects of state ownership on economic outcomes, researchers also measure firm growth, profitability, and productivity using AIS data.

Existing measures of SOEs flawed. Most measures of state versus privately owned firms in China rely on data from the government's AIS database to categorize firm ownership. However, AIS uses multiple variables to identify SOEs that in practice generate widespread inconsistencies in identification. The AIS database also suffers from large-scale misreporting issues. For example, firms may not change their ownership type from the initial record even after major restructuring. State ownership status is also self-reported by firms, some of which may have incentives not to reveal the true and complete structure, making the AIS records less reliable.

INSIGHTS

- By conventional measures, China has 391,000 state-owned enterprises (SOEs), but new analysis of state ownership among all 40 million registered firms in China finds that 363,000 firms are 100% state-owned, 629,000 firms are 30% state-owned, and nearly 867,000 firms have at least some state ownership.
- The total capital of firms with some level of state ownership has risen to roughly 68% of total capital of all firms (40 million) in the economy in 2017. The share owned by the central government has declined, while that of local governments has risen.

New measure captures a larger role of state ownership in the economy. To circumvent these issues, researchers looked directly at equity stakes owned by state and local governments. The researchers apply five different state ownership thresholds to identify SOEs: 100%, 50% 30%, 10%, or greater than 0%. They then measure equity ties for each threshold in an over 10-layer ownership tree. For example, China's State Council (Layer 0) owns 100% of equity in CITIC Group (Layer 1). If researchers are applying the 100% ownership threshold, they would identify all firms 100% owned by CITIC Group (Layer 2), and all firms 100% owned by those CITIC-owned firms (Layer 3), and so on, down a layer-by-layer ownership tree. Researchers used this approach for the five ownership thresholds, the results of which are outlined in the table above.

State ownership threshold	No. of firms	SOEs by conventional (AIS) measure
100%	362,693	391,490
50%	539,238	
30%	628,554	
10%	743,821	
> 0%	866,757	

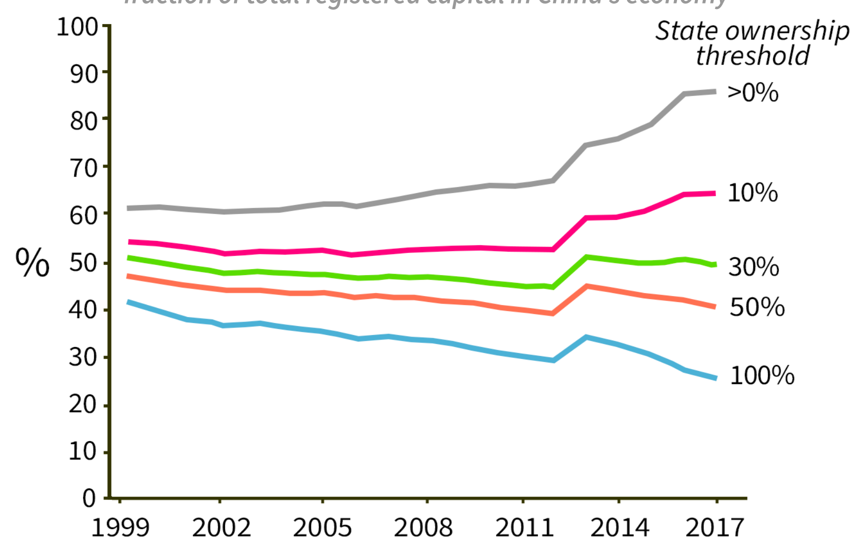
■ Mixed state and private ownership is associated with higher firm growth, productivity, and profitability. Firms with closer equity ties to China's government tend to grow faster but are less profitable and efficient than those with more distant equity ties.

Firms with equity investments in other firms account for roughly 80% of the total capital of all firms in China's economy. Among such "in-network" firms, the total capital of firms with some state ownership has increased from roughly 61% in 1999 to 85% in 2017. Meanwhile, the total capital of firms that are 100% state-owned has declined from 41% in 1999 to 25% in 2017. Among all firms with some state ownership, the share of state ownership has risen from 21% of all capital in 1999 to 31% in 2017.

Decentralization of state equity and indirect control. The state capital invested by the central government has declined from 37% in 1999 to 31% in 2017, while that of provincial governments has increased from 9% to 35% in the same period, both over total capital of the in-network firms. Additionally, while central and local governments are investing in a larger number of firms, the average holding in firms is declining. Taken together, the evidence suggests that while keeping its stake in firms, governments are moving more toward indirect control of firms with state equity.

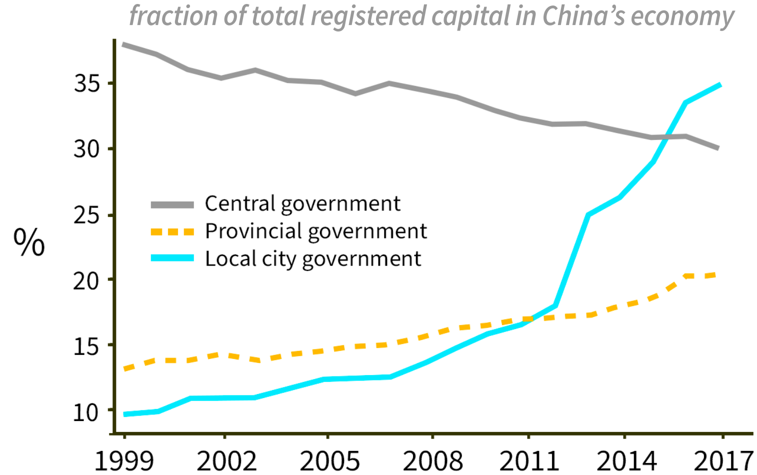
Mixed ownership benefits firms. The researchers find that state ownership tends to boost firm growth and productivity and has mixed effects on profitability. Firms with up to 10% central government ownership grow 48% faster in size (measured by total assets) than private firms. With even more central government ownership (10–30%), they grow 73% faster in size than private firms. The same is true for firms with provincial level ownership stakes, but less so for city level ownership stakes. While firms with less than 50% ownership are more productive and profitable, firms 100% owned by the central government are less profitable.

Registered capital of firms with some state ownership as fraction of total registered capital in China's economy



Closer hierarchical ties to the state confers costs and benefits. Firms closer to central and provincial governments in the ownership hierarchy tend to have higher growth rates in assets, while firms more remotely owned by governments tend to have higher profitability and efficiency. Compared to private firms, firms with state ownership tend to have lower borrowing costs on average. Firms with mixed ownership also enjoy similar favorable borrowing terms from state-owned banks as 100% state-owned enterprises.

Registered capital of firms with some state ownership as fraction of total registered capital in China's economy



Reassessing the role of the state. Taken together, the findings indicate that drawing a stark distinction between SOEs and privately owned firms may not reflect the role of the state in China's corporate sectors as well as the economy at large. Using the new measure of state ownership in firms, the analysis finds mixed state and private ownership, especially indirect government ownership, may combine the advantages of government support and the efficiency of private firms.