China’s Real Estate Boom and Capital Misallocation


Research has long shown that real estate booms allow firms to access more credit and invest more. China has experienced a decades-long real estate boom that has slowed only recently. What firms outside the real estate sector gain from rising land prices and how do they deploy new investments? How do negative shocks in the real estate sector affect firm behavior?

The data. To address these questions, researchers obtained a complete dataset of land transactions between 2000 and 2015 from China’s Land Transaction Monitoring System, including detailed information on land buyers, land area, total payment, land usage, locations, and transaction prices. They then matched the land transactions with a list of all publicly listed firms and their subsidiaries from the China Stock Market and Accounting Research Database, focusing specifically on service and manufacturing firms (non-real estate firms).

Matching firm and land transaction data enabled researchers to track firm investment patterns over time across several metrics, including how much firms invest and whether a land investment directly relates to firms’ core business activities.

Researchers were also able to link these investments to changes in firm patenting activities recorded in the Patent Reference Database, the amount of credit firms received from banks, and total firm productivity.

INSIGHTS

- Rising land prices in China induced land-holding firms, which tend to be state-owned enterprises, to increase speculative investments over investment into core business activities.

- Banks granted more credit to land-holding firms, causing a decline in investment and patenting activities of non-land-holding firms.

- A 1% increase in land prices was correlated with a 26% decline in total firm productivity in a wide cross-section of firms.

- Negative regulatory shocks to the real estate market reverse the trend, limiting speculative investment and boosting firm patenting.

Land prices in 330 sampled cities, 2004–2015
Rising land prices spur speculative investment. Between 2000 and 2015, researchers find that on average, land investment accounted for 27% of firms’ investment in a year, 75% of which was land unrelated to firms’ core business activities. As land prices rise, land-holding firms — often SOEs — experienced a decline in their financial restraints and a rise in their gross level of investment: a 100 RMB increase in total land value resulted in a 12 RMB rise in gross firm investment. However, rising land prices induced firms to invest in land unrelated to their core business activities, resulting in a reduction of other investments and patenting activities. Indeed, a one standard deviation increase of land value was associated with a 4–5% decline in patenting activities. Taken together, these results suggest that in response to rising land prices, firms switch investments from their core business and patenting activities to speculative investments in land.

Land-holding firms crowd out other firms in the credit market. Researchers also find that in the wake of rising land prices, bank lending significantly favored firms with real estate collateral, crowding out loans to non-land-holding firms. More specifically, an increase in land prices resulted in a decrease of non-land-holding firms’ gross investment and patenting activities due to reduced access to credit. Problematically, researchers find that land-holding firms — often SOEs — were typically less efficient than their non-land-holding counterparts.

Real estate boom, resource misallocation. As a consequence of both the rise of speculative investments and the decline in credit to non-land-holding firms, researchers estimate that a 1% increase in overall land price led to a 26% loss in firm productivity across all sampled firms.

Falling land prices trigger reverse trends. When the central government introduced measures to cool the property market in 2010 by restricting housing purchases, researchers observed a reversal of trends. While rising land prices induced firms to shift toward speculative investments in land, falling land prices caused by the purchase restriction policy induced firms to switch back to non-land investments, which in turn directly benefited firms’ core businesses and patenting activities.

Land prices affect investment, patenting, and productivity beyond the property sector. The research confirms that fluctuations in China’s property market affect firms well beyond the real estate sector. Rising land prices induce inefficiency by disproportionately channeling asset growth and credit to land-holding firms — often SOEs — that spend speculatively rather than to more efficient, non-land-holding firms, which are often privately owned. Negative shocks to the real estate market cause both state-owned and private firms in a broad cross-section of sectors to invest less but more prudently.