Good credit markets and banking can drive innovation in developing economies

Developing economies often lack sophisticated equity markets, meaning that firms that are focused on innovation must rely on bank lending, but tight bank policies can undermine the culture of innovation that is essential to growth.

Research conducted for the Asian Development Bank Institute concludes that deregulation creates a dynamic banking sector that, depending on the development stage, can either aid or hinder innovation.

The gradual deregulation of US banks over 20 years since 1970 is particularly instructive. During this period, some US banks responded to deregulation by making credit more available to out-of-state firms. Others consolidated locally by opening new regional branches.

Comparing the two patterns shows how extending credit markets aided innovation, while regional expansion generally hindered it.

Banks that provided credit across state lines found that greater geographic diversity could mitigate risk.

As a result, their lending policies became pro-innovation, with patents for public manufacturing firms increasing 12.6% and citations of patents increasing 10.1%.

However, a survey of banks in 51 states over 30 years showed that when new branches opened in states that had many small firms, the resulting disparity in local bargaining power diminished incentives to support innovation.

Researchers have subsequently focused on whether innovating firms are public or private.

Small, private firms are often the most reliable sources of innovation. Yet these firms depend on banking for support due to their small size and opaque operations.

Following deregulation, small, private firms that could draw on out-of-state finance were able to weather the inherent risks of innovation for a longer period without having to court buyouts from public firms.

Relying on bank credit meant firms could retain proprietary information longer, making innovation easier.

Since innovation in public firms rarely persists, this shows the value of having a banking system that features a range of banks and diverse credit regimes.

Studies on banking deregulation in the 1990s in Italy reveal how long bank lending relationships can also influence the culture of innovation.

When banks were deregulated, new players emerged that competed with banks that had maintained longstanding lending relationships with innovative firms.

While these new players offered some benefits, they proved to be less willing to support innovation.

The information embedded in these relationships will assume great value since innovative firms are not typically forthcoming with the details of their operations.

One particularly pertinent illustration of banking's influence on innovation is the US Great Depression of the 1930s. At the time, national banking and branching were limited, and the stock market crash crippled equity as a funding source. This threw the relationship of local banks and innovative firms into sharp relief.

Firms that were more capital intensive were disproportionately affected by the distressed banking system. When localized bank credit is the prime source of support, capital-intensive innovation is particularly vulnerable in the event of an economic shock.

This shows how other forms of innovation are best suited to areas where banking is the sole source of support.

Further studies addressed the local stock market developments that were a feature of Asian economies from 1975 to 2013;26 Asian economies were surveyed using a variety of metrics.

To gauge how stock markets developed, researchers looked at the annual market capitalization of all firms as they related to the gross national product. In the 40 years covered by the survey, credit markets in Asia largely matched the levels of the stock market.

By contrast, in the US over the same period, stock market rates far outweighed credit markets. Using US rates as a benchmark meant that more sophisticated metrics were needed to explain the divergence.

Since many Asian economies do not have developed equity markets, high-tech industries are most likely to benefit from rising credit markets. Foreign banks providing loans can theoretically support innovation by making the sector more competitive.

The inability to allocate resources efficiently makes foreign banks less inclined to support innovation, regardless of the economic climate.

The hallmarks of a culture of innovation in regions with underdeveloped stock markets are a deep, diverse, yet contained credit market and a well-developed banking sector.

This episode was based on research conducted for ADBI by Chen Lin, professor at the University of Hong Kong; Sibo Liu, a PhD candidate at the University of Hong Kong; and Lai Wei, an assistant professor at Lingnan University, Hong Kong, China.

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