INSIGHT

Enhancing Incentive Schemes to Boost Technology Financing

Technology financing has supported the growth of innovative startups in the Republic of Korea. Photo credit: Korea Institute of Finance.

In the highly competitive Korean market, policy makers need to adjust performance indicators and incentives to encourage banks to increase technology financing.

Introduction

In the past 4 years, technology financing in the Republic of Korea has grown steadily both in volume and quality, establishing itself as an effective and innovative funding channel for tech firms. Going forward, related evaluation criteria and incentives need to be realigned to encourage banks' continued efforts to expand technology financing and to enhance effectiveness of related policies. In the long run, pecuniary reward or penalty based on banks' track record in technology financing needs to be gradually reduced and converted into other incentive schemes.

Analysis

Technology financing is a type of policy financing and can be seen as intermediation of funding needed throughout all stages of technology development. It is extended in the form of an investment or loan. Investment is made mostly for innovative start-ups. The investment decision is based on a firm's technological capacity and profit outlook. In comparison, a loan is extended based on assessment of borrowers' ability to pay, which is measured by their financial condition and management capability. With a tech loan, a borrower's technological capacity also plays a large part in the lending decision.

In the Republic of Korea, tech-based credit lending began in earnest in July 2014, and it has steadily grown in volume. Between end-2014 and June 2018, outstanding cumulative tech loans grew by 21 times from 4.7 trillion won to 99.4 trillion won (more than $88 billion). In comparison, the cumulative amount of tech investment stood at 2.4 trillion won (more than $2 billion), amid growing investment from technology financing funds and banks' efforts to expand their technology financing.

In addition to growing volume, domestic technology financing is assessed to be faithful to its initial goal of supporting innovative tech start-ups. As of the first half of 2018, the average lending rate of tech loans was 3.48%, 0.2 percentage points lower than other loans, and the average maximum amount was 410 million won (more than $300,000), 260 million won higher than other loans. And the share of start-ups among technology financing recipients?with annual sales of not more than 10 billion won (close to $9 million) and less than 7 years in business?was a whopping 47.3% in the first half of 2018.

Growth of Tech Loans and Investment
(KRW trillion)

		2016	**2017**	**January–June 2018**
Loan (appraised value)	Lending amount	58.4	84.0	99.4
	Target	50.0	80.0	-
Investment		0.8	1.7	2.4

Source: Financial Services Commission, Republic of Korea

Implications

Going forward, incentives for banks' technology financing need to be realigned. Despite widely varying circumstances and resources among banks, competition for technology financing services has intensified. Banks that rank low in technology financing bear the burden of contributing to the Korea Credit Guarantee Fund and Korea Technology Finance Corporation, which can be seen as a penalty. (Note: The mandatory contribution began in the first half of 2015. The amount is reduced for the two highest-ranking large banks and small banks, and increased for the three lowest-ranking large banks and small banks.)

Instead of a uniform evaluation of technology financing performance, the evaluation criteria and indicator need to be refined in consideration of banks' customer profiles and management environment to encourage banks to expand technology financing voluntarily. Measures should be sought to promote fair competition by, for instance, adjusting the level of contributions by bank category?large, small, and special?and ranking, as well as reviewing whether banks are assigned to categories properly. Further, the idea of extending evaluation interval, lowering evaluation fee, and sharing evaluation results among banks may be considered to mitigate associated burdens for both banks and evaluating agencies.

In the mid to long run, pecuniary reward or penalty based on a bank’s performance in technology financing needs to be gradually eliminated and changed into other schemes, such as giving a prize?e.g., presidential citation on Science and Technology Day to raise awareness of technology financing?or reflect related records in key performance indicators to encourage banks to expand technology financing.

Resources

Korea Institute of Finance website

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Taiki Lee has been a research fellow in the International & Macroeconomic Finance Division since 2008. His main field of interest is international finance. In particular, he has been researching the behavior of foreign investors in the capital market and the domestic and international linkages of Korean financial markets. Before joining KIF, he worked at the Bank of Korea from 1998 to 2008 as an economist, mostly in departments related to financial markets. He holds a PhD in economics from the University of Chicago.

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The Korea Institute of Finance provides expert analysis for the development of the Republic of Korea's financial sector and financial policy.

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