Do bank shocks affect physical or R&D investments more?

Hirokazu Mizobata*
Kansai University

Abstract

This study focuses on physical and R&D investments to examine the effect of bank shocks on corporate investment behavior at the firm level or economywide. I use matched bank-firm lending data of 1990 to 2014 belonging to Japanese enterprises to identify bank loan supply shocks from firms’ borrowing shocks. During this period, bank concentration accelerated in Japan, which enhanced the granularity of bank shocks. The estimation result of the Q type investment function reveals that, when a firm relies heavily on loans, bank shocks become highly relevant for its physical investment compared with its R&D investment. Specifically, a negative bank shock of one standard deviation introduces a 6% decline in the physical investment rate, while it brings about less than a 1% decline in the R&D investment rate, when a firm has its loan-to-asset ratio at the 75th percentile of the distribution. Consistent with this finding, the aggregate level analysis shows that the granular bank shocks account for 8% of the variation in Japan’s aggregate physical investment and have no explanatory power on Japan’s aggregate R&D investment.

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*Faculty of Economics, Kansai University, 3-3-35 Yamate-cho, Suita-shi, Osaka 564-8680, Japan. Email: mizobata@kansai-u.ac.jp