

Have Banks' Additional Lending Led to Inefficient Investment?

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Some experts regard banks' distorted lending as one reason for Japan's prolonged economic slump that began in the 1990s, pointing out that banks provided companies in such sectors as construction and real estate with loans to prevent them from succumbing to the weight of excessive debt.

How did companies with their expected net earnings in the minus territory change their investment patterns if banks continued to extend loans to them in the 1990s? This report refers to banks' loans to companies with low profitability and their capital spending.

Over the past two years, the ratio of bad loans, or the ratio of non-performing loans to total outstanding loans, has been high in the sectors of construction, real estate, wholesale and retail, and services. The creation of many bad-loan cases in those sectors, to which banks increased loans even after the bursting of the economic bubble, testifies to a deterioration of banks' loan portfolios.

Following is a close analysis of capital spending since the 1990s in the five sectors with high bad-loan ratios -- construction, real estate, wholesale, retail and services -- as well as in the financial and insurance sector including non-bank financial institutions. Financial and insurance services are added to the "bad loan sectors" because the financial and insurance sector was subjected to government restrictions on loans to the real estate business in the early 1990s and because subsequently there were debates on whether public funds should be used to cope with bad loans held by housing loan companies.

The analysis is limited to sample companies among firms listed on stock exchanges across Japan, including the over-the-counter market, in the six sectors, whose interest-coverage ratios, which are calculated by dividing operating profits by financial expenses, fell below one for the second year in a row during the fiscal 1990-2002 period. The limit is aimed at understanding relations between bank loans to companies, which, of all firms in the bad loan sectors, have fallen into financial crises, and capital investment by such loan recipients.

Then, changes in 297 selected companies' capital-spending ratios, or ratios of fixed assets investment(1) to total assets, since the 1990s are analyzed. The analysis used six factors to explain changes in corporate capital-spending ratios -- (a) Changes in the ratios of loans to the selected companies to total outstanding loans extended by individual banks; (b) Ratios of operating profits to sales at the companies (Lag1); (c) Interest paid by the companies(2) (Lag1); (d) Outstanding balance of long-term loans payable by the companies (naturalized logarithm of average amounts at the start and end of a business year. Lag1); (e) Outstanding balance of bonds issued by the companies (naturalized logarithm of average amounts at the start and end of a business year. Lag1);

and (f) Outstanding balance of tangible fixed assets (naturalized logarithm of average amounts at the start and end of a business year. Lag1).

The table below shows results of the estimation, confirming that as for companies in the bad-loan sectors that have fallen into financial crises, the ratio of capital spending rose at firm to which banks increased loans. But there is a negative relationship between changes in the ratio of capital spending and profitability -- ratio of operation profit to sales -- as the table confirms that the less profitable companies were, the higher their capital-spending ratios were.

As far as sample companies are concerned, the analysis may indicate that banks have increased loans to them vis-à-vis other firms since the 1990s, regardless of such borrowers' profitability. In addition, bad loans involving the sample borrowers or those in their industrial sectors increased possibly as a result of unsuccessful capital investment projects on which the sample debtors spent borrowed funds.

Table: Capital Spending Ratios At Firms That Have Fallen Into Financial Crises Since the 1990s

Dependent Variable: Changes In Capital Spending Ratios At Individual Firms

	Co-efficient	t-value	
Change in ratio of loans extended to firms in question by individual banks	2.4697	2.34	**
Ratio of operation profit to sales	-0.0009	-5.20	***
Interest paid	-0.2018	-3.67	***
Outstanding balance of long-term loans	0.0013	2.86	***
Outstanding balance of corporate bond issues	0.0035	6.85	***
Tangible fixed assets	-0.0064	-9.22	***
Constant term	0.0205	4.75	***

Note: *** means significance at the 1% level, ** at the 5% level, and * at the 10% level.

- (1) Fixed asset investment = investment in tangible fixed assets (except land) + investment in intangible fixed assets + investment in land.
- (2) Interest paid = (interest expenses and discount commissions)/average outstanding balance of interest-bearing debts at start and end of year