Has Inefficient Financial Intermediary Function Caused Prolonged Stagnation of the Economy?

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The declining financial intermediary function brought about by non-performing loans is often said to be one of the major factors explaining the long-term downturn of Japan’s economy since the 1990s. It seems, however, hard to define and measure those phenomenon such as ‘credit crunch’ and ‘forbearance lending’, since arguments may be preoccupied with concerning whether they indeed happened or not. This column is going to present some analysis of financial intermediary function from the viewpoint of effective resource allocation.

Figure 1 shows the so-called Lilien Measure for 2980 Japanese firms including listed and non-listed companies. They cover a total of 26 industries. To see how actively credit shifted in the 1990s, we use this measure as the indicator for credit shifts across firms, where \( l_i \) stands for outstanding liabilities of firm \( i \) at time \( t \); \( L \) shows aggregate outstanding liabilities at time \( t \).

The Lilien Measure takes the squared sum of the differences of year-on-year changes in liabilities (i.e. short-term and long-term liabilities and bonds) outstanding of each firm and of the total firms, with weight given by credit shares of individual firms. The more credit shifts across firms, the higher \( \sigma^L \) becomes. Lilien(1982)\(^1\) originally attempted to support his hypothesis that sectoral shifts of employment induced the general economic downturn.

Saita and Sekine (2001)\(^2\) point out that the sectoral credit shifts became lower in the 1990s as opposed to the 1980s, using 259 segment data of Corporate Statistics Annual issued by the Department of Treasury. Miyagawa (2003)\(^3\) also showed using the loan outstanding of city banks and of regional banks, that the liquidity within the money market declined in the 1990s.

Forbearance lending or credit crunch, however, may occur not between banks and a certain

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2 Yumi Saita and Toshitaka Sekine “Sectoral Credit Shifts in Japan: Causes and Consequences of Their Decline in the 1990s” Bank of Japan Working Paper 01-06, October 2001
3 Tsutomu Miyagawa “The lost decade and shifts in the industrial structure” The Economics, Toyo Keizai, June 2003
industry, but rather in the relation between an individual bank and a certain firm. For instance, forbearance lending to a particular firm could result in a credit crunch for another. Also, when we look at the sectoral credit shifts, repayment by a firm may cancel out new loan by another firm. In such a case, one might argue that there was no credit shifts inter-sectors, as Saita and Sekine point out. In the remainder of this article, credit shifts among firms will be looked into.

Figure 1 shows that credit shifts among firms become active in the latter half of the 1980s, whereas they declined in the 1990s. The loan here includes long-term lending which is necessary for investment in building and equipment, money raised from capital market with the issuance of debenture, and short-term lending such as operating funds. It seems difficult to grasp the efficiency of resource distribution by looking only at the amount of outstanding bank lending, where those firms take out loans from governmental financial institutions or from those other than private financial institutions such as life insurance companies.

The fact that the Lilien Measure hovers at low levels in the 1990s does not suggest that the money redistribution function worked properly. Although lending outstanding of governmental financial institutions expanded and the maximum amount of loan guarantee was raised several times, credit shifts among firms did not improve throughout the 1990s.

Figure 1 Credit Shifts (among 2980 firms)

![Credit Shifts Graph](image)

Note ) Those privatized firms such as JR, NTT, and JT are not included.

Next, we take into account inter-sector credit shifts. The Lilien Measure for 26 industries declined in the 1990s as shown in Figure 1, and this shows that the credit shifts among industries became
active in the late 1990s (Figure 2). With the capital injection into banks, final disposal of non-performing loans to construction, real estate, and to wholesale industries had advanced, which made the variance of inter-sector credit shifts wider in the late 1990s. Although the measure rose again in the late 1990s, it does not seem that the credit shifted from a depressed industry to a newly growing industry.

Figure 2 Inter-Sector Credit Shifts

Note: For 26 industries including both manufacturing and non-manufacturing.