

## **Roles of Subsidized Loans in Entrepreneurial Finance: Evidence from Japan**

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This paper aims to examine roles of subsidized loans in small business finances, particularly in entrepreneurial finance, using micro data on Japanese startups. Startups, which are the most opaque group of firms, usually depend on internal capital and peer finances such as loans from family members or friends. Opacity of startups, which may lead to the private lenders' credit rationing or excessively tighter credit terms, can be the justification for subsidized loans such as direct government loans and guarantees on privately originated loans.

What makes the public support system for small business finances in Japan during the period under our study unique was the presence of the credit guarantee system with full default coverage and government financial institutions (GFIs) that originate loans at the fixed risk unadjusted interest rate, which is sometimes below the market rate. The recent reforms of Japanese public support for small business finances lead by the initiative of former Prime Minister Junichiro Koizumi, however, place an emphasis on downsizing of governmental financial institutions' direct lending and the shift of a public credit guarantee provided by a government insured Credit Guarantee Corporation (CGC) on a privately originated loan from the full coverage of a default risk to the partial coverage. No doubt do policy makers and practitioners pay great attentions to the public financial support system.

The presence of the public sector in SME finances could be sources of distortions. GFIs may (unfairly) compete with private financial institutions for high quality borrowers at below market subsidized lending rates. GFIs' risk unadjusted lending rates may lead to serious adverse selection problems. Public guarantees deprive private institutions of incentives to actively monitor borrowers so that moral hazard problems may be aggravated.

The pre reform Japan draws economists' attentions on two grounds. The coexistence of

large GFIs and the large guarantee program with full default coverage allows analysts to compare performances of two distinct types of subsidized loans that are widely employed worldwide. Second, since private financial institutions have little or no incentive to actively monitor loans fully guaranteed by the public program, Japan gives us an idealistic testing ground for the borrowers' moral hazard problems.

Using the unique survey data on startups in Japan conducted by the Small and Medium Enterprise Agency of the Government of Japan, our objective is not only to examine the effectiveness of overall government sponsored credit programs in promoting startups but also to evaluate the relative effectiveness of direct government sponsored loans and public guarantees.

Our contributions to the literature are twofold. First, for the first time, we empirically examine the relative performances of two widely adopted subsidized loans, direct public loans and guarantees on privately originated loans in startup finances. To the best of our knowledge, until now there is only a single work that discusses this issue theoretically (Li [1998]). Second, as a comparison group, we use startups that successfully borrow from private lenders without public guarantees. In the extant empirical literature, a comparison group is the firms that are not subsidized. Ultimately, we are interested in whether subsidized loans are needed in entrepreneurial finance. To this end, we need to know whether subsidized loans have advantages over private loans. The conventional selection of a comparison group, which includes the firms that failed to borrow, may overestimate the subsidized loans' positive effect.

We find that financially disadvantaged startups which are independently established and founded by poorly educated, less experienced entrepreneurs borrow subsidized loans. Furthermore, asset poor entrepreneurs tend to borrow loans from GFIs. These findings suggest that GFIs do not necessarily compete for high quality firms. Estimates of the treatment effect of the startup's borrowing subsidized loans using the OLS regression and various matching estimators are generally negative. The negative effect, however, is only found in publicly guaranteed loans and not in GFI loans, suggesting that publicly monitored subsidized loans are more effective than publicly guaranteed loans with the least private monitoring incentives.

## **Keywords**

subsidized loans, startup finances, firm growth

## **References**

[1] Li, Wenli (1998), "Government Loan, Guarantee, and Grant Programs: An Evaluation," *Economic Review*, Federal Reserve of Richmond, 84 (4), Fall, pp. 25-51.