

### **Event-study Analysis for the Effect of Merger and Acquisition of MFIs**

To explore the timing of the merger and acquisition (M&A) cases of MFIs more systematically, we undertake an event-study analysis. In this analysis, we allow the impact of M&A to vary by the event time, the difference between the calendar year and the year of M&A. Negative event times indicate the years left to M&A, and positive ones indicate those years after the M&A. If the event time is 5, for example, it represents the effect 5 years after M&A has been introduced. The estimates of the event-study analysis enable us to explore non-parametrically the relationship between the distance from the year of M&A and loan outcomes.

For the event-study analysis, we use the previous model except replacing the M&A indicators by a series of dummies for the years left to/after the event of M&A. Specifically, we include the fixed effects for MFI and district-by-year, and the covariates.

In figure 1, we take those MFIs without M&A case (never introduced M&A) in our sample and consider them as a reference group with those with a negative event times (not yet introduced M&A). Notably, M&A has a significant and positive effect on loan amount and loan size, and negative effect on the ratio of female borrowers. Further, M&A seems to affect the total number of borrowers only slightly just after the event. Moreover, the magnitude of the M&A effects become stronger as the event time increase for all of the outcomes, moving from left to right.

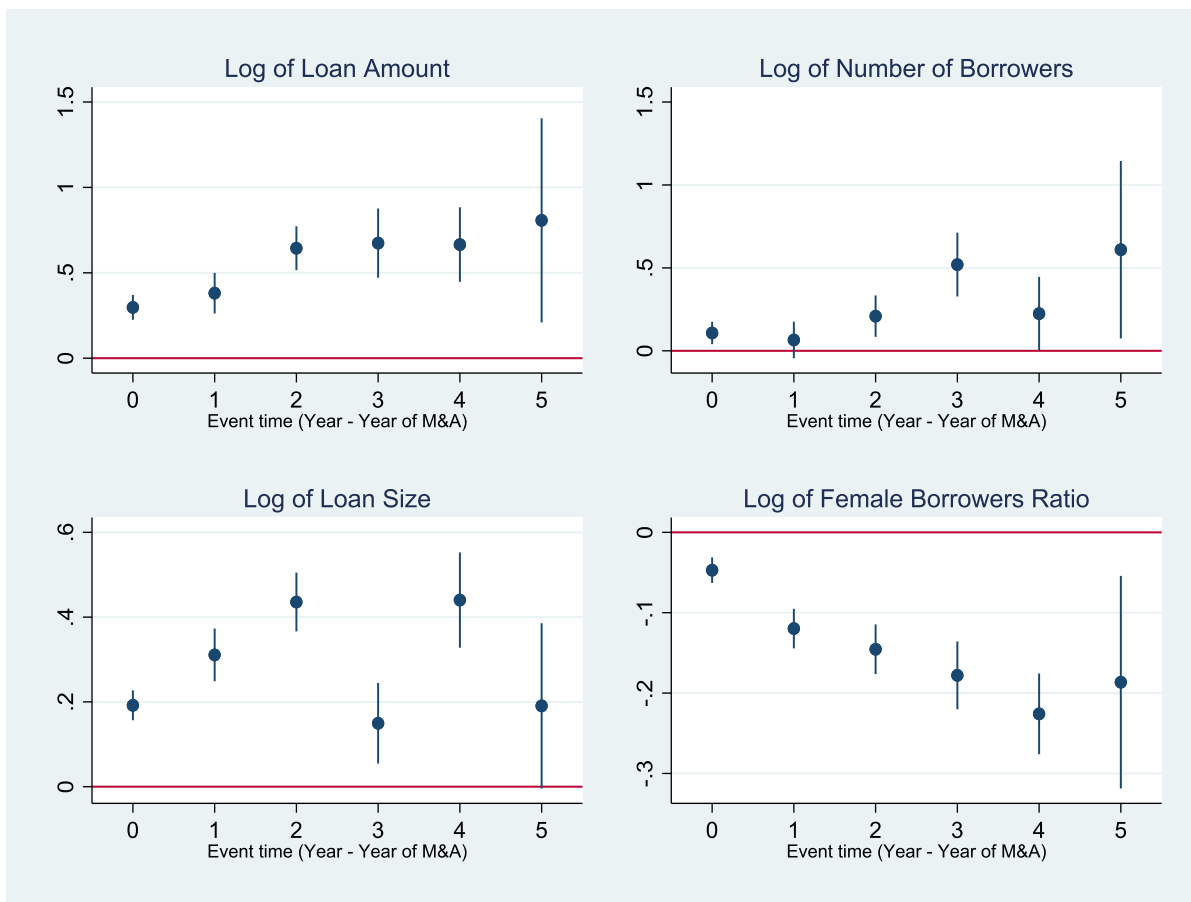


Figure 1: Event-study Estimated Effects of M&A on Loan