

## Evolution of Firm-Bank Relationships: Theory and Empirical Evidence\*

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### Abstract

This paper studies how the hazards of firm-bank relationships evolve over the course of their relations. A parsimonious dynamic equilibrium model is constructed to illustrate the mechanism potentially governing the shape of the hazard function. The model implies that, given the firm profitability and the availability of other financing sources at each point, the hazard function has downward slope when the surplus split to the incumbent banks decreases over the relationship duration. Motivated by this theoretical illustration, we empirically examine the shape of hazard function by using unique Japanese firm-bank match-level data over the last three decades. We find that the hazard function exhibits a hump-shape with downward shape over the wide duration range. This negative duration dependence implies that the longer relations could contribute to more stable relationships, which could reflect, for example, the reduction of the cost associated with loan provision. It is a contrasting result to a hold-up story, which is supposed to generate positive duration dependence, in the extant studies and provides an indirect evidence for the accumulation of relationship-capital over the course of firm-bank relations.

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*Key words:* Firm-Bank Relationships; Dynamic Equilibrium Model; Survival Analysis

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