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Endogenous product differentiation in credit markets: What do borrowers pay for?

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Abstract

This paper studies strategies pursued by banks in order to differentiate their services and soften competition. More specifically we analyze whether bank's ability to avoid losses, its capital ratio, or bank size can be used as strategic variables to make banks different and increase the interest rates banks can charge their borrowers in equilibrium. Using a panel of data covering Norwegian banks between 1993 and 1998 we find empirical support that the ability to avoid losses, measured by the ratio of loss provisions, may act as such a strategic variable. A likely interpretation is that borrowers use high-quality low-loss banks to signal their creditworthiness to other stakeholders. This supports the hypothesis that high-quality banks serve as certifiers for their borrowers. Furthermore, this suggests that not only lenders and supervisors but also borrowers may discipline banks to avoid losses.

JEL classification: G21; L15
Keywords: Banking; Product differentiation; Certification; Market discipline

1. Introduction

What do borrowers pay for? Are borrowers willing to pay higher rates to banks exhibiting higher reputation? If this is the case, some banks would invest in reputation for quality and differentiate their services from their rivals, thereby softening

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competition. In this paper we focus on such *endogenous* differentiation among banks. More precisely, which "quality" characteristics (equity ratios, loss avoidance, size etc.) do banks choose in order to differentiate themselves from competing banks.

There are two major reasons for borrowers to be concerned with bank quality. First, banks provide *certification* which can be used to alleviate consequences of asymmetric information and to contribute to borrowers' value. By borrowing from a bank known to have a high-quality loan portfolio (i.e. low loan-loss provisions) a firm can signal its creditworthiness to its other stakeholders. In this manner a high quality bank certifies its borrowers. [1] Thus, banks can segment the markets according to borrowers' willingness to pay for borrowing from banks with high-quality loan portfolios and extract higher rents from those valuing certification.

Second, borrowers may be concerned with *refinancing*. Refinancing is of crucial interest for locked-in customers. Some borrowers may face large lock-in effects due to the fact that their current bank has an informational advantage vis a vis competing banks (see Sharpe, 1990). These borrowers are inclined to choose banks that they anticipate are able to extend credit lines or provide new loans in future periods (switching to another bank is costly, see Kim et al., 2003). This suggests that bank characteristics that are informative about a bank's ability to provide loans in the future, as reflected in bank solvency and diversification (size), are important for borrowers. [2] Well diversified and well capitalized banks will less likely face large losses and are more able to withstand potential losses. Locked-in borrowers may prefer such banks (see Chemmanur and Fulghieri, 1994). [3]

The major interest of the empirical part of this study is to distinguish between the *certification* and *refinancing* motives.

If borrowers pay a premium for borrowing from banks providing certification (low loan-loss provisions) or from solvent banks with few problems in meeting future refinancing needs, banks face market discipline induced by borrowers. This asset side market discipline effect is different from the conventional one on the liability side (uninsured deposit and money market funding), which has been extensively studied in the banking literature. [4] A possible disciplinary effect from borrowers may reinforce the market disciplinary effect stemming from the liability side and make banks less financially fragile.

The issue of product differentiation in banking has been of interest for some time. Generally, banks can pursue two kinds of differentiation strategies. A bank can differ from other banks in a way that *all* customers consider as better than its competitors (e.g., better services). When customers agree about the quality ranking of different

[1] See e.g. Cook et al. (2003), James (1987), Lummer and McConnell (1989), and Billett et al. (1995).

[2] See Detragiache et al. (2000).

[3] Peek and Rosengren (1997) provide empirical evidence for a negative relation between loan losses at banks and their concurrent supply of loans.

[4] See for instance Calomiris and Kahn (1991) for a theoretical model explaining how depositors can discipline bank managers. Rochet and Tirole (1996) provide a theory of peer monitoring among banks in the interbank market. Martinez Peria and Schmukler (2001) and Gunther et al. (2000) provide empirical evidence of depositors disciplining banks' risk taking.