WORKING PAPER No. 50
October 1997

THE DETERMINATION OF BANK SMALL BUSINESS LOAN PREMIA IN THE UK

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The Determination of Bank-Small Business Loan Premia in the UK.

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The results indicate that the closeness of the small firm-bank relationship tends to result in lower bank premia, notwithstanding the predicted firm-size effect.

I. Introduction

The aim of this paper is to build on the evidence presented by Keasey and Watson (1995), which focused on the effects of bank competition on loan premia, by exploring in detail the effects of a wider set of variables associated with the characteristics of the loan itself and the nature of information flows in the banking relationship. This is important given the oft cited allegations that banks in the UK are unwilling to build long-term relationships with their small business customers. In support of such accusations the apparently high incidence of loan collateralisation is often quoted. On this Cressy (1992) contends that a policy of full collateralisation of debt would mean that the probability of bankruptcy would be irrelevant to the lending decision. In short, once (full) collateral is taken and the default risk removed, the bank has no need to build up relationships with firms in order to gain more information to properly evaluate risk.

It is the purpose of this paper to examine the fundamental determinants of bank premia on small business loans, with a particular focus on two key issues;

1) The effect of loan collateralisation on bank premia, and;

2) The role of information and bank-firm relationships on bank premia.
The empirical evidence was generated from a survey of UK small firms in 1991 which
dealt with small firm-bank relationships in a wider sense.

II. Sample, Variables and Model

To consider bank premia on small firm loans we use evidence from a random sample
of small businesses collected from an Association of British Chambers of Commerce
survey. In total data on 272 firms is analysed (see Middleton et al, 1992, for further
details). The characteristics of the sample are as follows;

Employment - the sample mean is 29 employees, and ranges from 1 to 197.
Sectoral Distribution - some 29.8% of firms are in manufacturing, 7.8% in
construction and the remaining 62.4% spread across the service sectors. Age - the
mean age of firms is 25 years, although the range is from start-ups to very old,
established firms. Debt Finance - in 1991, 42.7% of firms sought a bank loan. A
further 31.8% did so in 1990. Aside from the tiny proportion that had never sought a
bank loan, 1.2%, the remainder had done so prior to 1990. For the most part firms
sought either a new overdraft facility (revolving line of credit in the US), 22.4%, or an
extension to an existing facility, 46.6%. The remaining 30.9% had sought fixed term
loans. In line with the high incidence of overdraft facilities, the majority of lines of
credit were of no fixed payback, 58.3%. Of the rest, 15.5% were for less than five
years, 19.0% for 5-10 years, and 7.1% for 11-20 years duration.

The empirical model used to examine the determinants of bank premia can be
expressed thus;

Prem = α + ΣβR + ΣβL + ε

where, Prem is the bank premium (defined as the margin over base rates); ΣR is a
vector of firm specific risk characteristics, and ΣL is a vector of loan conditions and
bank-firm relationship variables. The variables are summarised in the Appendix. A
priori, we expect that the bank premium is positively associated with firm risk. In line with Keasey and Watson (1993,1995) we expect firm size (EMPLOY) to be negatively correlated with risk and thus bank premia, as failure probability declines with size. Further, we expect that a reduction in the banks exposure to default risk via the securitisation of a loan (SECYES) should reduce bank premia. This was a key finding of the Keasey and Watson (1995) paper. We also anticipate that our service sector dummy (SECTOR) might be positive, given the typically lower asset base of such firms compared to construction and manufacturing firms. This is important to banks in the event of default as assets can be appropriated. Other important firms specific variables include age (AGE), legal status (LEGAL), defined as 1 if limited liability and 0 if not. On age, we anticipate that older firms face lower premia for a given loan (see for example Petersen and Rajan,1994) due to an increased probability of survival. On legal status, Storey (1994) argues that limited liability yields a small firm credibility which from the banks point of view can offer benefits if it reflects the seriousness of the business.

Other loan specific factors which we might expect to influence loan premia are the size of the lending bank (BANK), denoted 1 if bank is one of the big-4 UK clearers, whether the loan decision was made at a local branch or regional head office (DEC), the duration of the loan (DUR) and loan size captured as a series of dummies (base £8,000). Further we also consider the purpose of the loan captured as a dummy (FA) if the loan was used to finance investment in fixed assets, and a dummy (INFO) to capture the nature and the closeness of the firm and bank relationship. This was coded 1 if the firms owner perceives the bank to have good or very good knowledge and understanding of the firm and its owner. This is intended to capture relational effects as hypothesised by Petersen and Rajan. Thus we anticipate that a closer relationship between bank and borrower will, holding all other factors constant, result in lower lending premia. In order to maintain a degree of consistency with Keasey and Watson (1995), we incorporate time-dummies to allow for shifts in premia generated through changes in the level of bank competition.
Table 1. Descriptive Statistics

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>S.D.</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prem</td>
<td>2.79</td>
<td>1.13</td>
<td>1.0</td>
<td>9.8</td>
</tr>
<tr>
<td>Age</td>
<td>25.49</td>
<td>34.10</td>
<td>1</td>
<td>224</td>
</tr>
<tr>
<td>Employ</td>
<td>29.30</td>
<td>35.78</td>
<td>1</td>
<td>197</td>
</tr>
</tbody>
</table>

Number of cases = 272

III. Empirical Results

In line with Keasey and Watson (1995), we find no evidence that changes in bank competition in the late 1980s and early 1990s fundamentally altered the interest rate premia. In fact only four factors were found to significantly alter these premia, namely; the size of the loan issuing bank; the purpose of the loan; the firms size, and importantly; the perceived closeness of the bank to its customer firms. Here the results show that big-4 banks charged higher premia for a given loan than smaller banks. Not unexpectedly, firm size reduced premia, as did the closeness of the bank-firm relationship. This is particularly important in the light of the insignificance of our age of firm variable, and suggests that the length of the bank-firm relationship is not the best indicator of the nature of information flows between firm and bank.

Other important findings were that the imposition of collateral requirements did not reduce interest rate premia, nor did a number of other loan characteristics such as loan size, duration and the level at which the banks final loan decision was made.
<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>S.E.</th>
<th>T-ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>-0.017</td>
<td>0.063</td>
<td>-0.272</td>
</tr>
<tr>
<td>Secyes</td>
<td>0.042</td>
<td>0.074</td>
<td>0.563</td>
</tr>
<tr>
<td>Bank</td>
<td>-0.084</td>
<td>0.048</td>
<td>-1.749</td>
</tr>
<tr>
<td>Dec</td>
<td>0.033</td>
<td>0.060</td>
<td>0.552</td>
</tr>
<tr>
<td>Dur</td>
<td>-0.008</td>
<td>0.034</td>
<td>-0.227</td>
</tr>
<tr>
<td>FA</td>
<td>0.120</td>
<td>0.052</td>
<td>2.322</td>
</tr>
<tr>
<td>Legal</td>
<td>-0.011</td>
<td>0.067</td>
<td>-0.170</td>
</tr>
<tr>
<td>Sector</td>
<td>0.036</td>
<td>0.054</td>
<td>0.660</td>
</tr>
<tr>
<td>Employ</td>
<td>-0.125</td>
<td>0.033</td>
<td>-3.821</td>
</tr>
<tr>
<td>Info</td>
<td>-0.145</td>
<td>0.064</td>
<td>-2.263</td>
</tr>
<tr>
<td>LS1</td>
<td>0.195</td>
<td>0.127</td>
<td>1.540</td>
</tr>
<tr>
<td>LS2</td>
<td>-0.079</td>
<td>0.114</td>
<td>-0.696</td>
</tr>
<tr>
<td>LS3</td>
<td>-0.031</td>
<td>0.102</td>
<td>-0.306</td>
</tr>
<tr>
<td>LS4</td>
<td>0.012</td>
<td>0.122</td>
<td>0.099</td>
</tr>
<tr>
<td>LS5</td>
<td>-0.053</td>
<td>0.110</td>
<td>-0.485</td>
</tr>
<tr>
<td>T90</td>
<td>-0.063</td>
<td>0.077</td>
<td>-0.819</td>
</tr>
<tr>
<td>T91</td>
<td>-0.012</td>
<td>0.069</td>
<td>-0.171</td>
</tr>
<tr>
<td>Constant</td>
<td>1.263</td>
<td>0.228</td>
<td>5.550</td>
</tr>
</tbody>
</table>

N=272
R2=0.319
DW=1.893

IV. Conclusion

The intention of this paper was to build upon the earlier work of Keasey and Watson regarding the fundamental determinants of bank premia. We do this by allowing for a number of additional loan and firm characteristics to play a potential role. The key finding was that the closeness of the bank-firm relationship did influence bank loan premia. Further, it is apparent that age of firm is not the best proxy for the nature of the relationship. We find a substantial degree of consistency with Keasey and Watson in that there appears to be no relationship between bank competition and borrowing costs over time. In contrast with the earlier work we find no inverse relationship between loan collateral and price as predicted by theory.
REFERENCES


APPENDIX: VARIABLES

Dependent variable

Prem
Log of the interest rate premium above Bank of England base rates.

Independent variables

\(\ln\) (Age) Log of firm age.
Secyes If loan secured on assets=1, otherwise=0.
Bank If customer borrowed from big-4 bank=1, otherwise=0.
Dec If final loan decision was made at a local branch=1, otherwise=0.
Dur If loan was of fixed duration=1, otherwise=0.
FA If loan was for investment in fixed assets=1, otherwise=0.
Legal If firm had limited liability status=1, otherwise=0.
Sector If firm was in a service sector=1, otherwise=0.
\(\ln\) (Employ) Log of employment size.
Info If firm owner perceived its bank to have good or very good information regarding the firm and its owner=1, otherwise=0.
LS1-LS5 Dummy variables representing loan size band
(reference category=£8,000).
T90-T91 Dummy variables used to reflect the year in which the loan was issued.
(reference year=1989).