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Why do loans contain covenants? Evidence from lending relationships[☆]

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ABSTRACT

Despite the importance of banks' role as delegated monitors, little is known about how non-price terms of loan contracts are structured to optimize information production in a lending relationship. Using a large sample of corporate loans, this paper examines the effect of relationship lending on covenant choice. Consistent with information asymmetry theories, covenant tightness is relaxed over the duration of a relationship, especially for opaque borrowers. In contrast, the effect of lending relationship intensity on the number of covenants included in a loan follows an inverted U shape. I discuss potential explanations for this finding.

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1. Introduction

Finance theory has long held that banks perform a special role as delegated monitors (e.g., [Diamond, 1984; 1991](#)). Through repeated interaction with the borrower, a rela-

tionship bank produces information that can reduce overall contracting costs for the firm ([Fama, 1985](#)). Although the structure of a loan contract should be set to optimize this information production, surprisingly little is known about the effect of lending relationships on loan terms beyond the price and availability of credit.¹

This paper contributes to closing that gap by studying how relationship lending affects the use of loan covenants in a sample of large loans to publicly listed borrowers. The contracting literature suggests that financial covenants play a key role in creditors' monitoring activities. In models by [Aghion and Bolton \(1992\)](#) and [Dewatripont and Tirole \(1994\)](#), assigning state-contingent control rights to creditors can enhance firm value. Financial covenants provide for such a shift of control rights outside of bankruptcy

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¹ One exception is [Bharath et al. \(2011\)](#) who consider the effect of lending relationships on maturity and collateral requirements.

when borrower performance falls below a predefined accounting threshold. Recent studies show that lenders actively use these control rights to protect their interests and that the presence of covenants is associated with lower interest rates.² How should control rights be distributed when relationship lenders acquire information about the borrower?

Forming and maintaining a lending relationship affects information asymmetries at two levels. First, as the lender becomes informed about the borrower, information asymmetries between the two parties are reduced. [Gârleanu and Zwiebel \(2009\)](#) develop a model in which information asymmetries make it optimal to set excessively restrictive covenants at the beginning of a lending relationship. Covenants are subsequently relaxed as the lender learns about the borrower's type and the need for covenant protection declines. Second, the relationship lender's information acquisition potentially increases the information distance between herself and nonrelationship lenders. It is not clear how this difference in knowledge about the borrower should affect covenant choice. [Rajan \(1992\)](#) argues that lock-in effects allow relationship banks to impose less favorable terms on the borrower. However, [Schenone \(2010\)](#) finds that lock-in effects are not a concern for publicly listed borrowers such as those studied in this paper. [Rajan and Winton \(1995\)](#) and [Park \(2000\)](#) develop models in which a lender has the option to become informed and covenants incentivize the lender to acquire information despite free-riding by uninformed creditors. However, these models consider differences between a bank lender and dispersed outside creditors, rather than differences between bank lenders that have similar monitoring technologies. Exactly how relationship lending affects covenant use is thus an empirical question.

I explore this question with a sample of 7,924 loans taken from the DealScan database. I measure relationship status in two different ways. The first measure, relationship intensity, is the proportion of the firm's loans over the previous five years that have been arranged by the current lender. A low level of relationship intensity implies that the current lender has not previously been the borrower's main lender. A medium level implies that the current lender is likely to be the main lender but the firm also borrows from other lenders, while a high level implies an exclusive lending relationship. Thus, this measure is meant to proxy for how well the lender knows the borrower relative to other lenders. Consequently, it allows distinguishing between relationship effects in exclusive and nonexclusive relationships. The second measure is the duration of the borrower's relationship with the current lender, which can be viewed as a proxy for how well the lender knows the borrower in absolute terms.

I first test the effect of relationship status on covenant tightness, which is defined as the average ex ante violation probability of a loan's financial covenants. Results suggest that covenant tightness monotonically decreases in a lending relationship, and more so for small, unrated

borrowers for whom a reduction in information asymmetries is likely to be important. Moreover, this effect primarily applies to information asymmetries between the borrower and the lender, as measured by relationship duration, rather than the intensity of the relationship relative to other lenders. These results strongly support the theory proposed by [Gârleanu and Zwiebel \(2009\)](#).

The analysis next turns to covenant intensity, defined as the number of financial covenants attached to a loan. In contrast to the results for covenant tightness, the effect of lending relationships on covenant intensity appears to be driven by relationship intensity rather than the duration of the relationship. In addition, the relationship effect is nonlinear. Covenant intensity is highest for medium levels of relationship intensity. Loans have fewer covenants both when the current lender has little prior relationship with the borrower and when the current lending relationship is exclusive. I discuss various potential explanations for this inverted U effect. One potential explanation is that the empirical result is created by a confluence of separate factors. The increasing portion of the inverted U could be due to borrowers suffering hold-up effects ([Rajan, 1992](#)). The decreasing portion could potentially be related to information asymmetry effects. Note, however, that [Schenone \(2010\)](#) finds that these two factors have a U effect, rather than an inverted U effect, on the yield spreads paid by unlisted borrowers. Another potential explanation is that borrowers that use multiple lenders find it optimal to give monitoring incentives in the form of covenants to their main relationship lender, whereas using just one lender reduces the free-rider problem and thus limits the benefits from incentivizing that lender with additional covenants.

One way to assess reasons for the inverted U effect is to examine differences in the relationship effect across borrowers with varying degrees of bargaining power. A high degree of bargaining power should help borrowers negotiate a contract that is preferable from their point of view. The results show that the decrease in covenant intensity in exclusive relationships is concentrated in large borrowers with access to the public debt market. In addition, in a syndicated loan, all loan participants are entitled to the same covenants. If the inverted U effect is related to monitoring incentives, it should be stronger for sole lender loans or loans with only one lead arranger since for such loans the sole lender or lead arranger captures a larger fraction of the benefits from monitoring. Indeed, covenant use increases more strongly in nonexclusive relationships for such loans. I find some evidence that the decrease in covenant intensity in exclusive relationships is concentrated in loans with one lead arranger. There is no evidence that relationship effects on covenant intensity are stronger for opaque borrowers that are more likely to be subject to hold-up and information asymmetry concerns.

The choice to borrow from a relationship lender is likely endogenous. In addition, borrowers that maintain multiple relationships could differ from borrowers that rely on an exclusive lender. To rule out that the results are driven by selection effects or omitted variable bias, I employ several different strategies. First, I use instrumental variables (IV) estimation, exploiting differences in borrowers' proximity to banks that actively syndicate loans. The

² See [Bradley and Roberts \(2015\)](#), [Matvos \(2013\)](#), [Chava and Roberts \(2008\)](#), [Roberts and Sufi \(2009\)](#), [Nini et al. \(2009\)](#); [2012](#), [Reisel \(2014\)](#).

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