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Creditor control rights and firm investment policy ☆

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ABSTRACT

We present novel empirical evidence that conflicts of interest between creditors and their borrowers have a significant impact on firm investment policy. We examine a large sample of private credit agreements between banks and public firms and find that 32% of the agreements contain an explicit restriction on the firm's capital expenditures. Creditors are more likely to impose a capital expenditure restriction as a borrower's credit quality deteriorates, and the use of a restriction appears at least as sensitive to borrower credit quality as other contractual terms, such as interest rates, collateral requirements, or the use of financial covenants. We find that capital expenditure restrictions cause a reduction in firm investment and that firms obtaining contracts with a new restriction experience subsequent increases in their market value and operating performance.

1. Introduction

How does a reliance on external finance affect firm investment? This question has been the focus of research across many economic disciplines, including corporate finance, banking, macroeconomics, and development. In their seminal article, Jensen and Meckling (1976) suggest that risk shifting tendencies of equity-holders may lead creditors to directly restrict investment in debt contracts. However, in their classic study of corporate bond covenants, Smith and Warner (1979, p. 117) conclude that "extensive direct restrictions on production/investment policy would be expensive to employ and are not observed". Consistent with the findings in Smith and Warner (1979), recent evidence on bond covenants reported by Billett, King, and Mauer (2007) suggests that fewer than 5% of public bond indentures contain an explicit restriction on firm investments.

In contrast to these previous studies, this paper provides evidence of widespread use of direct contractual

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restrictions on firm investment in the debt agreements of publicly traded companies. We show that lenders regularly impose explicit limits on capital expenditures, particularly after a borrower's credit quality deteriorates, and that the capital expenditure restrictions constrain firm investment. We also demonstrate that firms obtaining a capital expenditure restriction experience subsequent increases in operating and market performance.

What distinguishes our study from earlier research is our emphasis on private credit agreements rather than bond indentures. Private credit agreements govern the terms of sole-lender and syndicated bank loans to companies, and they contain covenants that are more detailed, comprehensive, and tightly set than public bonds.[1] We examine 3,720 private credit agreements between banks and publicly traded US corporations and show that 32% of the contracts contain an explicit restriction on capital expenditures. The importance of this finding for the investment literature is underscored by the fact that roughly 80% of all public firms maintain private credit agreements, compared with only 15–20% that have public debt (Faulkender and Petersen, 2006; Sufi, 2009).

We find that creditors are more likely to limit firm investment in response to increases in the borrower's credit risk, as measured by the firm's ratio of debt to cash flow and credit rating. This result suggests that restricting potential risk-shifting investments by equity-holders becomes more relevant as the riskiness of the debt increases. It is also consistent with the model of Aghion and Bolton (1992), in which creditors alleviate incentive conflicts with equity-holders by limiting investment after negative firm performance but before payment default.

The effect of credit quality on the likelihood of having a capital expenditure restriction is both statistically robust and economically meaningful. For example, a firm that is downgraded from the lowest investment-grade Standard & Poor's rating (BBB) to the highest speculative-grade rating (BB) experiences a 21% increase in the likelihood of facing a capital expenditure restriction, which is almost a doubling of the likelihood that the contract contains a restriction. Moreover, compared with other contractual features common to loan contracts, capital expenditure restrictions are one of the most sensitive to changes in borrower credit quality. For instance, whether a loan includes an investment restriction appears more sensitive to changes in credit quality than amendments to interest rates, collateral requirements, or financial covenants.

Although credit agreements do not make capital expenditure restrictions explicitly contingent on borrower performance, we find that renegotiation in response to a financial covenant violation serves to make the restrictions effectively contingent on borrower performance. A financial covenant violation represents a technical default that gives creditors the right to accelerate the loan, which could force the firm into bankruptcy. These acceleration rights permit creditors to introduce capital expenditure restrictions into subsequently renegotiated agreements. In fact, relative to the original agreement, capital expenditure restrictions are 20% more likely to be observed in a renegotiated agreement following a covenant violation. While creditors also increase interest rates and demand collateral in response to covenant violations, the elasticity of the capital expenditure restriction with respect to a covenant violation is significantly larger than the elasticity of other loan terms.[2]

Challenges arise when attempting to determine the causal effect of capital expenditure restrictions on actual firm investment policy, primarily because the restrictions often follow negative performance, which by itself could induce borrowers to voluntarily cut back on capital expenditures. We conduct several tests to overcome this identification problem, and we find that the restrictions in fact constrain firm investment. First, we demonstrate that firms obtaining a credit agreement with an investment restriction experience a 15% decline in capital expenditures relative to firms that obtain a credit agreement without a restriction, even after controlling for observed changes in investment opportunities and prior performance. Second, using a subsample of agreements for which we collect the exact dollar value of the restriction, we show that actual borrower expenditures tend to cluster tightly below the contractual limit. Lastly, we examine the capital expenditure patterns of firms that go from having a credit agreement with no capital expenditure restriction to having a new contract with a restriction. Immediately prior to the new agreement, almost half of the borrowers invest more than the yet-to-be-imposed restriction amount. Once the restriction is imposed, less than 10% of firms exceed the restricted amount, and over 60% of the borrowers lie in the expenditure area within one-quarter of a standard deviation directly below the restriction. Such a dramatic shift in expenditures to a level just below the restriction is difficult to reconcile with the hypothesis that the restrictions do not affect investment policy.

In our last set of results, we explore the impact of capital expenditure restrictions on subsequent firm performance. We show that firms obtaining an agreement with a new capital expenditure restriction experience increases in both market value and return on assets (ROA) relative to firms that obtain agreements without a

[1] Kahan and Tuckman (1993) find that relative to bond indentures, loan agreements "more aggressively control the actions of shareholders by setting various covenants more tightly". Verde (1999) compares bonds and loans for the same firms and argues that "… the scope of [bond] restrictions … is generally loose and adds little value in protecting bondholders". In addition, "… explicit protections afforded high-yield bondholders are weak in comparison to those provided to leveraged loan creditors".

[2] This pattern is consistent with the "dynamic lending strategy" discussed by Smith (1993). Lenders use covenants as tripwires to flexibly monitor borrower performance. A covenant violation leads to a reevaluation by the lender of borrower payment ability and the setting of new restrictions on borrower behavior conditional on the evaluation. Berlin and Mester (1992) examine a framework in which covenants lead to optimal contract renegotiations, while Rajan and Winton (1995) build a model in which covenants improve the lenders' incentives to monitor.