J. Finan. Intermediation 25 (2016) 154–177

Contents lists available at ScienceDirect

J. Finan. Intermediation

journal homepage: www.elsevier.com/locate/jfi

Law and Project Finance

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ARTICLE INFO

Article history:
Received 31 January 2013
Available online 4 May 2015

Keywords:
Agency cost
Bank loan
Creditor rights
Corporate governance
Law and finance
Project Finance

ABSTRACT

We investigate Project Finance as a private response to inefficiencies created by weak legal protection of outside investors. We offer a new illustration that *law matters* by demonstrating that for large investment projects, Project Finance provides a contractual and organizational substitute for investor protection laws. Project Finance accomplishes this by making cash flows verifiable through two mechanisms: (i) contractual arrangements made possible by structuring the project within a single, discrete entity legally separate from the sponsor; and (ii) private enforcement of these contracts through a network of project accounts that ensures lender control of project cash flows. Comparing bank loans for Project Finance with regular corporate loans for large investments, we show that Project Finance is more likely in countries with weaker laws against insider stealing and weaker creditor rights in bankruptcy. We identify the predicted effects using difference-in-difference and triple-difference tests that exploit *exogenous* country-level legal changes and inter-industry differences in free cash flow and tangibility of assets.

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1. Introduction

The law and finance literature (La Porta et al., 1997, 1998) highlights that legal rules protecting outside investors vary systematically across countries. As the Coase Theorem (Coase, 1960) predicts, market participants often respond to the inefficiencies from weak investor protection laws by resorting to

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http://dx.doi.org/10.1016/j.jfi.2014.01.001
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contractual and private enforcement mechanisms. In this paper, we investigate one instance of this broader phenomenon. We examine Project Finance as a private response to the risks posed by the financing of large investment projects in countries with weak investor protection.

Project Finance (hereafter PF) represents an important financing mechanism for large investment projects. Worldwide, the use of PF has grown dramatically, from a then-record of $217 billion in 2001 to a record $328 billion in 2006 (Esty and Sesia, 2007), though current numbers are lower at $195 billion in 2012. Between 1991 and 2012, PF raised over $2.5 trillion to fund almost 6000 projects.[1] Moreover, the incidence of PF in a country correlates with its economic growth (Kleimeier and Veersteeg, 2010). Yet, the choice between financing large projects through in-house Corporate Debt Finance (hereafter CDF) versus through PF has yet to be studied empirically. Our investigation intends to fill this gap.

We observe that PF is considerably more prevalent, relative to CDF, in French than in English legal origin countries: 55% versus 36%. Even when we exclude observations for the U.S., we find this difference to be quite significant: 55% versus 37%. Investor protection laws are also weaker in French legal origin countries than in the English legal origin countries (La Porta et al., 1997, 1998), suggesting that investor protection laws may be important in determining the choice of PF versus CDF.

In PF, a legally independent project company is created to own and invest in the project, and the project debt is structured without recourse to the sponsors (Nevitt and Fabozzi, 2000; Esty, 2003). With this structure, project cash flows become the essential means for repaying the lender. Verifiability of cash flows, therefore, becomes crucial. PF enhances verifiability by the lender through (i) contractual constraints on cash flows that are made possible by the special structuring of the PF company; and (ii) private enforcement of these contracts through a network of project accounts that are under the lender's control and into which project cash flows are required to be deposited. Contractual constraints on cash flows are possible because the Project Company (i) owns only the single, discrete project for which it is created; and (ii) is legally separate from the sponsor. Therefore, project cash flows can be meaningfully separated from the sponsor's other cash flows.

With CDF, by contrast, the commingling of cash flows from multiple projects makes it difficult to segregate project cash flows. Lender monitoring of project cash flows is therefore difficult. Moreover, tightly enforced cash flow constraints similar to those in PF would impede managerial discretion in CDF, which involves not only multiple projects but also internal capital markets within the corporate entity. Therefore, contractual arrangements that are possible in PF cannot be effected in CDF. The choice of PF versus CDF thus presents a trade-off. CDF offers managerial flexibility with respect to allocation of cash flows, but these cash flows are less verifiable. Conversely, PF offers cash flow verifiability, but the attendant cash flow controls preclude managers from funding project-related growth opportunities from internal cash flows or reallocating cash flows across multiple projects, as is possible with CDF.[2]

In countries with weak investor protection, it is *a priori* unclear whether firms and their lenders will prefer the cash flow verifiability that PF offers or the financing flexibility of CDF. PF might be attractive in a country whose corporate and bankruptcy laws provide weak investor protection, since CDF can lead to expropriation of outside investors by corporate insiders. As in Diamond (2004), stronger laws against insider stealing limit diversion of cash flows *ex post*. *Ex ante*, this causes a rightward shift in the entire distribution of cash flows available to all claimants—creditors as well as equityholders. Given their concave payoffs, creditors care about the left tail of the cash flow distribution. Therefore, stronger laws against insider stealing increase the prospects for repayment and decrease the probability of default in CDF. At the same time, stronger creditor rights enhance the lender's threat to liquidate collateral assets. When cash flows are not verifiable, as with CDF, the lender's threat to liquidate collateral assets is central to forcing the borrower to repay (Hart, 1995). However, the lender

[1] *Source:* Loan Pricing Corporation's Dealscan database.

[2] Project Finance also involves significant transaction costs. For example, creating a stand-alone project company may take from six months to more than a year, and the contracting and other transaction costs may consume from 5% to 10% of the project's total cost (Esty, 2003). Second, the up-front fees are considerably higher for project debt than for corporate debt. Finally, lenders to project companies charge advisory fees of up to 50–100 basis points for advice on the financial structure of the transaction (Esty, 2003).

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