

Borrower Managerial Discretion and Covenant-Lite Loans

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Abstract

In syndicated loan markets, one striking development in leveraged loan segment is the emergence of a borrower-flexible loan type, called covenant-lite loans in which maintenance covenants are excluded ex-ante. Prior studies look at reasons for lenders to accept this type of loans and document the surge of covenant-lite loans is to reduce renegotiation costs and to eliminate renegotiation frictions due to widespread lender-base. The purpose of this paper is to analyze, from borrowers' side, whether and how managerial discretion may impact managerial acceptance of this borrower-flexible loan type. I measure managerial discretion from two different dimensions. The incentive to pursue personal interests is measured by managerial opportunism incentives, and the incentive to pursue business interests is measured by managerial flexibility incentives. Empirical results show both managerial incentives play a significant role in propensity to borrow covenant-lite loans, but managerial opportunism incentives significantly dominate managerial flexibility incentives suggesting stronger executive power base being more likely to borrow flexible loan contracts. Furthermore, managerial flexibility incentives are decomposed into organizational discretion and environmental discretion. Organizational discretion describes a need for managerial flexibility due to firm-specific uncertainty. In exchange for organizational discretion, the borrowers pay higher loan spread and accept tighter loan strictness to compensate the lenders.

Key words: managerial discretion; managerial opportunism incentives; managerial flexibility incentives; covenant-lite loans; borrower-flexible loan type

JEL classifications: G21, G23, G34

I. Introduction

Covenant-lite loans, a borrower-flexible loan type issued without maintenance covenants, are exclusive to the leveraged loan segment of syndicated loan markets. Syndicated loans are made by a group of lenders to one single borrower. Credit risk is thus shared among them known as lead arrangers and participant lenders. In the context of syndicated loans, banks generally originate and hold higher-rated loans and loans with lower interest spreads, while they originate and distribute lower rated loans (i.e., mostly B-rated loans) and loans with higher interest spreads to non-bank institutions (Nadauld & Weisbach, 2012). One of striking developments to date is participation of non-bank institutions in syndicated loans (Becker & Ivashina, 2016). Over time, non-bank institutions become active participants in the leveraged loan segment, in which over 60 percent of loans are made to riskier borrowers by institutional investors (Nini, 2017). Another recent development to date in the leveraged loan segment has been the rise in covenant-lite loans – a borrower-flexible loan type issued without maintenance covenants. Covenant-lite loans first appeared in corporate lending in the late 1990s and took off in the years leading up to the subprime loan crisis. During the financial crisis, the issuance of covenant-lite loans significantly dropped and almost disappeared in 2008. In 2009, the issuance of covenant-lite loans then reemerged. As

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indicated in Table I in the appendix, the percentage of covenant-lite loans to leveraged loans was 2.44 in 2007 prior to the crisis, and this percentage was 22.62 in 2018 on an increasing trend.

The standard rationale for using covenants in loan contracting is to ensure creditors' conditional control rights when their incentives diverge from incentives of shareholders who typically can decide a firm's financial policies. However, it is important to differentiate types of covenants, in particular, the difference between maintenance covenants and incurrence covenants. Financial covenants can be incurrence-based or maintenance-based, depending on terms written into loan contracts. Incurrence-based covenants are triggered only if borrowers take certain actions, such as a borrower's wish for taking out more debt, paying dividends, repurchasing shares, or making certain investments, and are tested only upon completing the actions. The incurrence covenants are included in both covenant-heavy and covenant-lite loans. On the other side, maintenance covenants refer to accounting-based conditions and require a borrower to maintain certain range of accounting ratios at all points of time. For instance, a borrower may violate maintenance covenants when its leverage ratio deteriorates. An increase in leverage ratio can lead to violation in a covenant-heavy loan but not in a covenant-lite loan. Once in covenant violation, creditors exercise control rights over managers (Nini et al., 2012; Roberts & Sufi, 2009).

Despite the phenomenon of covenant-lite loans having only emerged recently, researchers view covenant-lite loans as a loan market innovation. With large size and dispersed composition of loan participants, covenant-lite loans are designed to reduce coordination costs (Becker & Ivashina, 2016) and to mitigate bargaining frictions (Berlin et al., 2020). One string of prior studies documents the surge of covenant-lite loans can be attributed to institutional investors' "search for yield" preference in the prolonged low interest-rate environment (Dell'Ariccia et al., 2017; Maddaloni & Peydró, 2011), a shift in lending banks' distribution methods from originate-and-hold model to originate-and-distribute model (Berlin et al., 2020), and dispersed lender base (Becker & Ivashina, 2016; Berlin et al., 2020). Another string of prior studies focuses on characteristics of covenant-lite loan borrowers and finds syndicated lenders prefer to exclude maintenance covenants ex-ante to highly levered firms (Davydenko et al., 2020). The existing research regarding the surge of covenant-lite loans is, however, incomplete. While most prior studies have focused on supply side, little has been investigated from demand side, such as top executives' incentives.

Taking into consideration, future investigation should incorporate additional factors from demand side to better understand covenant-lite loans. Prior literature has shown the importance of managerial discretion when explaining flexibility-enhancing loan contracts. Chen et al. (2013) find managers use discretion to affect loan contracting terms by including fewer accounting-based financial covenants (a.k.a maintenance covenants). The influence of managerial discretion may thus be extended to the debate surrounding covenant-lite loans. In this vein, my motivation is to fulfill research gap in the literature by examining whether and how managerial discretion may impact managerial acceptance of covenant-lite loans.

Managerial discretion is defined as actions available to top executives in decision-makings and has two dimensions based on what objectives top executives pursue, namely managerial opportunism incentives or managerial flexibility incentives. My first hypothesis on managerial opportunism incentives describes that managers may borrow covenant-lite loans because they benefit from the lack of maintenance covenants and ongoing monitoring to act in their own self-interests. My second hypothesis on managerial flexibility incentives describes that managers may borrow covenant-lite loans because management demands flexibility based on lessons learned from financial crisis in order to better respond to industry, macro, or firm-specific uncertainty.

Using a sample of covenant-lite loans in Dealscan from 2005 to 2019, my research objective is first to test which of these two incentives for choosing covenant-lite loans is supported by empirical results. Secondly, managerial opportunism incentives or managerial flexibility incentives do not have to be mutually exclusive, they may both be at work. I then test which one of these two incentives dominates the other.

My paper contributes to the debate surrounding covenant-lite loans in several ways. First, this paper expands existing literature on the surge of covenant-lite loans from a view of borrower-level incentives— a field that has been overlooked – through innovative research that assesses managerial discretion and its two dimensions. Second, I test and confirm that managerial discretion as well as its two dimensions are key factors to consider in understanding covenant-lite loan selection. Third, my paper contributes to the loan contracting literature by showing, given the fact that on-going monitoring is missing in covenant loans since maintenance covenants are excluded ex-ante, lenders tend to increase borrowing costs and to impose more intense loan strictness ex-ante when this borrower-flexible loan type is taken in need of organizational discretion – a purpose to build up managerial flexibility to deal with business uncertainty from the internal.

II. Background about Covenant-Lite Loans

The Covenant-Lite Loan Market

In 2000s, one major development in syndicated loan market was covenant-lite loans: corporate loans issued without maintenance covenants. The emergence of covenant-lite loans is due to a change from banks' originate-to-hold model to originate-to-distribute model (Ivashina & Vallee, 2020). In practice, banks retain less risky loans (Bord & Santos, 2012). In covenant-lite loans, banks' distribution methods are originate-to-hold for the revolving credit lines and originate-to-distribute for the term loans. In the banking literature, researchers conclude as optimal covenant tightness decreases, lending banks retain less term loan tranches of syndicated loans inferring the banks have "less skin in the game" (Billett et al., 2016).

The literature implies surge of covenant-lite loans is due to increasing involvement of non-bank institutional investors in loan markets (Becker & Ivashina, 2016). Such involvement can be attributed to institutional investors' "search-for-yield" – a preference for high-yield investments in the prolonged low interest-rate environment (Abuzov et al., 2023; Dell'Araccia et al., 2017; Isin et al., 2020; Maddaloni & Peydró, 2011). In contrast to traditional view of getting control rights (Nini et al., 2012), institutional investors searching for yield are willing to forego some control rights to boost yields (Aramonte et al., 2019).

Prior studies suggest the emergence of covenant-lite loans is related to investor-driven. A study by Bozanic et al. (2018) argues standardization of loan contracting can alleviate information-processing costs for syndicated participants, as long as these standardized loan contracts provide sufficient information about the borrowers for potential lenders to participate in loan syndication deals. Similarly, for syndicated loans with large participation-base, both parties including borrowers and lenders avoid the use of flexibility-reducing covenants which are more likely to negatively impact value-enhancing corporate policies in good states of the world (Saavedra, 2018).

The literature view covenant-lite loans as loan market innovation. For a conventional bank loan provided by a single creditor, renegotiation involves only two parties, namely the borrower and the bank. However, for syndicated loans in which credit is provided by multiple participants, the renegotiation requires coordination among all parties and would impose higher coordination

costs. Thus, in syndicated loans, creditor rights should be efficiently allocated to a small set of lenders in order to mitigate bargaining frictions and to reduce coordination costs. Berlin et al. (2020) refer covenant-lite contracting as a “split-control rights” structure in which banks as revolving lenders have exclusive creditor control rights to monitor and to renegotiate with the covenant-lite borrowers.

Covenant-lite Loan Borrowers

One string of research on the surge of covenant-lite loans builds predictions from agency theory. It has been argued that interest conflicts arise over differences in banks and institutional investors’ preferences regarding when to enforce control rights and when to waive them following covenant violations. Billett et al. (2016) demonstrate a model of dual-agency problems where borrower-bank and bank-institutional investors’ incentives conflict. Their model finds optimal covenant tightness decreases as bank participation declines. The intuition is when shares contained by the lead-arranger bank are below a threshold, the optimal loan contract design grants enforcement control rights to institutional investors, who will preferably choose to remove entire covenant enforcement when value of bank-borrower relationship increases for a purpose of future relationship rents, in which enforcement conflict between the lead-arranger bank and institutional investors becomes so severe that an optimal loan contract will be covenant-lite.

Another string of research on the surge of covenant-lite loans argues leverage ratio of a borrower can determine whether or not to include maintenance covenants in loan contracting. Creditors may find maintenance covenants have no value in loan contracting to a highly levered borrower (Davydenko et al., 2020). In an event of covenant violation, creditors can either require immediate repayment or waive violation by renegotiating terms of the loan contract. An attempt to demand immediate repayment may drive borrowers to bankruptcy. By contrast, it could be costly to waive covenants by renegotiation because of dispersed creditor-base in syndicated loans and costs of covenant enforcement will be borne by the creditors (Roberts & Sufi, 2009).

In firm performance, Demerjian et al. (2020) find covenant-lite loans are more likely to default than covenant-heavy loans with maintenance covenants, suggesting that benefits of maintenance covenants are lost when lenders issue covenant-lite loans, and that covenant-lite borrowers have worse future performance than covenant-heavy borrowers.

III. Hypotheses Development

Introduction

In this section, I am interested in examining two non-mutually exclusive top executives’ incentives which may help explain propensity to borrow covenant-lite loans. Managers, on one side, may borrow covenant-lite loans because they could benefit from lack of maintenance covenants and ongoing monitoring to act in their own self-interests. Managers, on the other side, may borrow covenant-lite loans because lack of ongoing maintenance covenants allow managers to “buy time” for managerial flexibility under volatile conditions, so managers will not be overly controlled by strict maintenance covenants at exact time when they need flexibility to make decisions that are geared toward maximizing firm interests. Thus, I first test whether the likelihood of borrowing covenant-lite loan is affected by managerial opportunism incentives or managerial flexibility

incentives. Furthermore, I am interested in examining which effect – managerial opportunism incentives or managerial flexibility incentives – dominates.

Next, I study costs of borrowing covenant-lite loans. Since covenant-lite loan borrowers value managerial discretion either due to managerial opportunism incentives or managerial flexibility incentives, I expect lack of ongoing maintenance covenants will result in higher loan spreads or more intense loan strictness to compensate creditors with less control rights.

Hypotheses on managerial acceptance of covenant-lite loans

My first hypothesis is that managerial opportunism incentives are likely to be a driving factor for propensity to borrow covenant-lite loans. I build my first hypothesis on the prediction that managers use discretion for self-interests to influence loan contracting terms. First, empirical evidence suggests managers are concerned with manager-specific value when making decisions (Beatty et al., 2002). Second, prior analyses indicate managerial opportunism plays an important role on use of bond covenants. Chava et al. (2010) find inclusion of dividend payout and takeover-related covenants decrease with entrenched managers.

Despite the limited research on managerial opportunism and loan contracting terms, one can deduce the effects of managerial opportunism on propensity to borrow covenant-lite loans from broader literature on debt financing and managerial moral hazard. Wang (2011) shows managers' self-interested actions help to explain significant deviation between leveraged choice made by managers and the optimal leverages that could have maximized firm value. The literature suggests that debt financing is a sub-optimal financing option for entrenched managers seeking managerial discretion because managers will not lever up to constrain themselves unless there is a takeover threat (Ağca & Mansi, 2008; Novaes, 2003). Given that covenant-lite loans lack of maintenance covenants, and thus accounting-based conditions will not be maintained at all points of time, I suppose that managerial acceptance of covenant-lite loans is to pursue managerial opportunism for self-interests.

H1a: Managerial Opportunism Hypothesis: The likelihood of managerial acceptance of covenant-lite loans is positively related to managerial opportunism incentives for self-interests.

In contrast to the first hypothesis, my second hypothesis is that managerial flexibility incentives are likely to be a driving factor for propensity to borrow covenant-lite loans. Managerial flexibility is loosely defined as a need for management to alter operating strategies in response to uncertainty (Xie, 2009). I expect managerial acceptance of covenant-lite loans is because firms facing great uncertainty either from the external or the internal conditions would favor one important feature of this “borrower-flexible” loan type, that is the exclusion of maintenance covenants in loan contracts ex-ante. The intuition is straightforward. On one side, maintenance covenants can often present future onerous restrictions to borrowers on managing business and in some cases ensuring the survival of their business. Thus, borrowers do not want to give their lenders the power to terminate a loan or to get concessions just because lenders worry future results may not be good. In covenant-lite loans, the on-going monitoring from lenders is missing since maintenance covenants are excluded in loan contracts ex-ante, therefore managers will not be overly controlled by strict maintenance covenants that limit their ability to manage at exact time they need flexibility.

On the other side, assuming great uncertainty increases borrowers' default risk and frequencies of renegotiation between borrowers and lenders in ex-post, both parties will bear corresponding costs. First, when borrowers violate covenants, lenders face a choice by either enforcing covenants and accelerating loan payments or waiving and renegotiating with borrowers. In the first condition, lenders attempt to enforce covenants, but they also face the risk of bearing bankruptcy costs since an attempt to enforce maintenance covenants may force borrower to file for bankruptcy. In the second condition, lenders renegotiate loan terms with borrowers in ex-post, and they bear the corresponding costs of renegotiation and allow shareholders to continue having claims on assets as an on-going concern. In either condition, an optimal solution is to attach no value to maintenance covenants and to exclude them from loan contracts ex-ante. For syndicated lenders with a dispersed participation-base, they benefit from reduced coordination costs (Becker & Ivashina, 2016). For covenant-lite loan borrowers, they benefit, especially facing great uncertainty, if managers can have flexibility in management to respond well to volatile conditions either from outside environment or internal operations.

H1b: Managerial Flexibility Hypothesis: The likelihood of managerial acceptance of covenant-lite loans is positively related to managerial flexibility for business interests.

Hypotheses on costs of borrowing covenant-lite loans

Building on Jensen and Meckling (1976) suggesting inclusion of covenants in debt contracts restricts managerial discretion and protects lenders' wealth, I expect that there is a trade-off between obtaining features of covenant-lite loans and borrowing costs. I assume that managers favor features of covenant-lite loans are willing to pay for higher interest spreads in exchange for decision rights, creditors thus get compensated since exclusion of maintenance covenants and lack of ongoing monitoring may increase moral hazard and adverse selection. Chen et al. (2013) study the impact of mandatory adoption of International Financial Reporting Standards (IFRS) on corporate loan terms and empirically find mandated adopters of IFRS relative to non-mandated adopters of IFRS experience an increase in loan interest rates, a reduction of accounting-based financial covenants included in loan contracts, an increase in the likelihood of loan collateral, and a reduction in loan maturity. These changes can be explained by greater managerial discretion allowed under IFRS requirements because the absence of clear implementation guidance generate more reporting uncertainty, induce more opportunistic accounting reporting uncertainty and thus increase managerial discretion. In this case, lenders demand higher premium to compensate reporting uncertainty and information risk due to deterioration in accounting reporting quality.

The findings by Chen et al. (2013) provide evidence on how managerial discretion may affect loan contracting terms, especially in the case of unclear guidance on accounting reporting quality. Research of Chen et al. (2013) focuses on the effects of accounting information on debt contracts ex-post, whereas Beatty et al. (2002) assess the effects of changes of accounting reporting requirements in debt covenants ex-ante. In their findings, borrowers are willing to pay for discretion in debt covenants to avoid ex-post covenant violations.

Following my first hypothesis and second hypothesis, covenant-lite loans could be borrowed for managerial discretion. In addition, managerial discretion can be decomposed into managerial opportunism incentives and managerial flexibility incentives. In exchange for discretion in management, I expect that covenant-lite loan borrowers pay for higher loan spread

and accept tighter loan strictness. I propose for the following hypotheses on costs of borrowing covenant-lite loans:

H2a: Covenant-lite loan borrowers pay for higher loan spread in exchange for managerial discretion.

H2b: Covenant-lite loan borrowers accept tighter loan strictness in exchange for managerial discretion.

IV. Data and Descriptive Statistics

Data

I use Dealscan as my main source to collect data on loan features. Covenant-lite loans are exclusive to syndicated loan market, and Dealscan is the most widely used database of syndicated loan origination. As mentioned by Becker and Ivashina (2016), issuance of covenant-lite loan is an emerging phenomenon to the leveraged loan segment. I classify a leveraged loan deal as covenant-lite if there is at least one loan facility flagged as covenant-lite in Dealscan. Dealscan provides covenant data in the market segment file at facility level and include a segment called “Covenant Lite”. A loan deal is classified as leveraged when all loan facilities in the same loan deal are flagged as “Leveraged” in Dealscan. Therefore, I focus on leveraged loans and covenant-lite loans in syndicated loan segment.

My sample period is from 2005 to 2019 since the emergence of covenant-lite loans is from 2005. The issuance of covenant-lite loans took off in years prior to the 2008 sub-prime financial crisis, but almost disappeared during the crisis. Starting from 2009, the issuance of covenant-lite loans reemerged.

I start with 7,008 covenant-lite loan facilities and 103,852 leveraged loan facilities. I then restrict the sample period to 2005-2019, this leaves 7,006 covenant-lite loan facilities and 72,218 leveraged loan facilities. Furthermore, I exclude financial (SIC 6000-6999) and utility (SIC 4900-4999) borrowers consistent with prior research (Saavedra, 2018). This leaves 64,927 unique loan facilities in total. As noted earlier, a loan deal is classified as covenant-lite when there is at least one loan facility is flagged as covenant-lite in Dealscan. I link loan facilities and loan deals by facility IDs and deal IDs that are provided in Dealscan as unique linking keys. To balance my data as firm-year panel data, for firms that borrowed multiple loan deals in one year, I include the earliest origination in a given year. This leaves 26,100 unique firm-year observations in which there are 23,807 leveraged loan deals and 2,293 covenant-lite loan deals. I merge Dealscan data with yearly Compustat data using the linking table from Chava and Roberts (2008), available on Michael Robert's homepage. Dealscan provides loan-level data and has loan identifiers (i.e., facilityid, and dealid). Compustat provides firm-level data and has GVKEY identifiers. The Dealscan-Compustat links have both loan identifiers for Dealscan side (i.e., facilityid, and dealid) and GVKEY identifiers for Compustat side. Thus, the Dealscan-Compustat links allow me to merge loan-level data with firm-level data.

My other sources to collect data on firm features include Compustat, Execucomp, Institutional Shareholder Services (ISS), and Institutional (13f) Holdings. To make my observations consistent throughout all regressions, I require the sample data with sufficient data available in all data sources. These procedures yield a final sample of 3,780 firm-year observations.

There are 3,329 leveraged loans and 451 covenant-lite loans in the final sample with 3,268 unique leveraged loan borrowers and 436 covenant-lite loan borrowers.

Key Variables

Individual-discretion index: a proxy variable of managerial opportunism incentives to describe CEO's freedom to pursue personal interests that are beyond maximization of shareholder' interests (Baixauli-Soler et al., 2020; Schrand & Zechman, 2012). Individual discretion index is calculated through the following dimensions: (1) CEO duality, an indicator taking value of one if the CEO is also chairman of the board; (2) CEO wealth, measured by the total value of equity-linked wealth over market capitalization; (3) CEO overconfidence, measured by excess investment which is residual from a regression of asset growth on sales growth; (4) acquisition, is the value of acquisitions made by the firm; (5) debt-to-equity ratio, measured by long-term debt plus short-term debt to total market value, and (6) risk, measured by an indicator taking value of one if convertible debt or preferred stock is greater than zero. All the indicators of individual discretion index loaded positively, and the component of greatest common variance is chosen.

Environmental-discretion index: is one dimension of managerial flexibility incentives and describes the task environment factors to which degree that an industrial environment varies overtime (Baixauli-Soler et al., 2020; Schrand & Zechman, 2012). It is calculated through four factors: (1) product differentiability, measured by industry median of sales, general& administrative expenses, scaled by the industry median of firm sales; (2) demand instability, measured by the five-year rolling window of standard deviation of annual industry sales growth; (3) market growth, measured by industry median of sales growth; and (4) industry structure, measured by industry Herfindahl–Hirschman index. All four factors loaded positively on environmental discretion index. I rely on principal component analyses to construct these indexes, and the component of greatest variance is chosen.

Organizational-discretion index: is the other dimension of managerial flexibility incentives and describes internal organizational factors to which degree an organization may face uncertainty from its operation (Baixauli-Soler et al., 2020; Schrand & Zechman, 2012). It is calculated through three factors: (1) resource availability, measured by a firm's R&D expenditures scales by sales; (2) capacity intensity, measured by the ratio of property, plant, and equipment over the number of a firm's total employees; and (3) ownership structure, measured by ownership Herfindahl–Hirschman index. Only capacity intensity loaded negatively on environmental discretion index. I rely on principal component analyses to construct these indexes, and the component of greatest variance is chosen.

Loan strictness: is an aggregate measure of contract strictness [†]incorporating loan spread, loan amount, and loan maturity (Demerjian et al., 2020). I start by ranking these three loan features into decile by year of loan origination. My aggregate measure of loan strictness is the average of these decile scores, and higher decile indicate stricter loan contracts. Specifically, I scale ranks from 0.1 to 1. Loan maturity and loan size are ranked from low to high, meaning shorter loan maturities and smaller loan size indicate stricter loan contracts. Loan spread is ranked from high to low, meaning larger loan spread indicates stricter loan contracts.

[†] Several papers also use covenant strictness ((Davydenko et al., 2020; Murfin, 2012)), but with covenant-lite loans exclude financial maintenance covenants in loan contracts, I did not use covenant strictness as measures for loan strictness.

Descriptive Statistics

Table 1 provides descriptive statistics including proxies of managerial discretion, measures of loan features and firm features. I report full sample statistics in panel A and sub-sample statistics in panel B. In panel B, I report statistics of covenant-lite loans in the first three columns and statistics of leveraged loans in the last three columns. In terms of managerial discretion, I find covenant-lite borrowers tend to have higher values of managerial opportunism incentives (proxied by individual-discretion index) and one dimension of managerial flexibility incentives (proxied by organizational-discretion index) compared to leveraged loan borrowers. For firm features which are control variables (i.e., Altman Z scores, leverage, and market-to-book ratio), there are significant differences between covenant-lite borrowers vs. leveraged loan borrowers showing the importance of including these control variables in regression analyses.

There are also significant differences between covenant-lite and leveraged loans on loan features. Covenant-lite loans typically have higher loan spread (318 vs. 272 bps) and larger loan amount (862.8 million vs. 395.4 million) but less loan strictness (0.436 vs. 0.561) compared to leveraged loans. This is consistent with empirical findings of Demerjian et al. (2020). In terms of loan participants, my summary statistics show that covenant-lite loans typically have a larger base of participants than that of leveraged loans, which is in line with Becker and Ivashina (2016) arguing it is high coordination costs due to dispersed lender base that contributes to a rise in covenant-lite loan issuance.

Table 1: Descriptive Statistics

This table shows descriptive statistics for a sample of 3704 firm-year observations (436 covenant-lite loan borrowers vs. 3268 leveraged loan borrowers) covered in Compustat and Dealscan over the period 2005 to 2019. Following prior studies, I exclude financial firms (SIC code 6000-6999) and utilities (SIC 4900-4999).

Panel A. Summary Statistics of Full Sample

Variable	N	Mean	Median	Std.	p25	p75
Mgmt. Incentives						
CEO wealth	3225	941.4	2.741	24501	1.133	5.714
AQC	3212	306.8	4.315	1571	0.000	121.3
Debt-equity	3227	0.913	0.304	23.459	0.163	0.491
Excess investment	3280	-147.8	-147.9	1.245	-147.9	-147.8
Product diff.	3522	0.021	-0.085	0.919	-0.131	-0.041
Demand instability	3728	-0.177	-0.118	0.370	-0.335	-0.085
Market growth	3728	-0.035	-0.060	0.647	-0.194	0.094
Industry structure	3728	-0.656	-0.840	0.632	-1.054	-0.513
Capacity intensity	2172	469.0	49.316	3214.5	24.692	133.498
Resource availability	1288	0.046	0.014	0.096	0.002	0.052
Instown. HHI	2194	0.064	0.048	0.076	0.037	0.064
Ind. index	3018	0.000	-0.012	1.135	-0.364	0.046
Org. index	1282	-0.389	-0.431	0.217	-0.458	-0.387
Env. index	3522	-0.428	-0.534	0.535	-0.710	-0.270
Loan Features						
Loan spread	3684	277.5	250.0	141.4	175.0	325.0
Loan strictness	3643	0.546	0.533	0.188	0.400	0.700
#Loan participants	3780	10.930	9.000	7.447	5.000	15.000
Loan amount	3780	4.512e+08	2.400e+08	6.968e+08	1.000e+08	5.000e+08
Firm Features						

Profitability	3693	0.0140	0.0330	0.259	-0.005	0.074
Altman-z	3330	2772	963.6	7890	377.2	2404
Leverage	3704	0.496	0.436	1.561	0.237	0.663
Market-to-book	3509	1.321	1.081	1.029	0.778	1.562
Firm age	3709	16.18	16.00	6.740	12.00	22.00
Tobin's q	3514	1.681	1.429	1.014	1.146	1.893
Sales growth	3619	0.135	0.058	1.074	-0.022	0.165
ROA	3695	0.016	0.032	0.156	-0.006	0.066
Tangibility	3698	0.279	0.206	0.233	0.092	0.414
Firm size	3709	7.614	7.495	1.480	6.618	8.474

Panel B. Summary Statistics of Covenant-Lite vs. Leveraged Loan Sub-Sample

Variable	Cov-lite N	Cov-lite mean	Cov-lite median	Leveraged N	Leveraged mean	Leveraged median
Mgmt. Incentives						
CEO wealth	343	1610	2.521	2882	861.8	2.766
AQC	358	556.1	3.550	2854	275.5	4.406
Debt-equity	343	4.966	0.341	2884	0.432	0.299
Excess investment	361	-147.8	-147.8	2919	-147.8	-147.8
Product diff.	423	0.045	-0.090	3099	0.018	-0.084
Demand instability	441	-0.139	-0.103	3287	-0.182	-0.124
Market growth	441	-0.036	-0.050	3287	-0.035	-0.060
Industry structure	441	-0.711	-0.883	3287	-0.649	-0.837
Capacity intensity	267	164.9	49.66	1905	511.6	49.26
Resource availability	174	0.053	0.019	1114	0.045	0.013
Instown. HHI	269	0.067	0.044	1925	0.064	0.048
Ind. index	320	0.090	0.016	2698	-0.011	-0.026
Org. index	174	-0.375	-0.443	1108	-0.391	-0.429
Env. index	423	-0.419	-0.534	3099	-0.429	-0.534
Loan Features						
Loan spread	430	318.2	300	3254	272.2	225
Loan strictness	428	0.436	0.400	3215	0.561	0.567
#Loan participants	451	11.91	11	3329	10.80	9.000
Loan amount	451	8.628e+08	5.486e+08	3329	3.954e+08	2.000e+08
Firm Features						
Profitability	433	0.028	0.033	3260	0.012	0.033
Altman z	383	4463	1653	2947	2552	880.2
Leverage	436	0.490	0.591	3268	0.496	0.416
Market-to-book	391	1.448	1.204	3118	1.305	1.068
Firm age	436	17.87	20	3273	15.96	16.00
Tobin's q	391	1.789	1.545	3123	1.667	1.418
Sales growth	426	0.112	0.044	3193	0.138	0.061
ROA	433	0.019	0.031	3262	0.015	0.033
Tangibility	435	0.235	0.176	3263	0.285	0.210
Firm size	436	8.211	7.982	3273	7.535	7.411

I present correlation matrix between key variables in Table 2. Significance of the correlation matrix is at 10% statistic level. This table shows that all proxies of managerial opportunism (i.e., individual-discretion index) and managerial flexibility (i.e., organizational-discretion index, environmental-discretion index) are significantly related with covenant-lite (an indicator) at uni-variate level. In terms of loan features, covenant-lite loans (an indicator variable)

are positively related with loan spreads but negatively related with loan strictness measured by aggregate loan provisions at uni-variate level.

Table 2: Correlation Matrix

In this table, I present correlations matrix for the main variables of interest used in the sample. The significant is at 5% statistical levels. Following prior studies, I exclude financial firms (SIC code 6000-6999) and utilities (SIC 4900-4999).

	[1]	[2]	[3]	[4]	[5]	[6]	[7]
Covlite [1]	1						
Duality [2]	0.0685*	1					
CEO wealth [3]	0.0044	0.0202*	1				
AQC [4]	0.0427*	0.0478*	0.2004*	1			
Debt-Equity [5]	0.0304*	0.0124	0.0009	-0.0017	1		
Debt [6]	-0.0725*	-0.0143	-0.0018	0.0316*	-0.0030	1	
Excess investment [7]	0.0086	-0.0072	-0.0234*	0.0224*	-0.0054	0.0405*	1
Product diff. [8]	0.0388*	-0.0221*	-0.0009	0.0657*	-0.0026	-0.0147	0.0081
Demand instab. [9]	0.0452*	-0.0042	-0.0042	-0.0017	-0.0005	0.0428*	0.0081
Market growth [10]	-0.0007	0.0001	-0.0055	0.0066	-0.0045	0.0137	-0.0206*
Industry struct. [11]	-0.0505*	0.0574*	0.0002	-0.0266*	0.0222*	-0.0460*	-0.0125
Capacity int. [12]	-0.0373*	-0.0134	-0.0103	-0.0297*	-0.0056	0.0301*	0.0546*
Resource avail. [13]	0.0346*	-0.1151*	0.0307*	-0.0214*	-0.1566*	0.1265*	0.0703*
Instown HHI [14]	0.0167*	-0.0730*	0.0352*	-0.0730*	0.0152	-0.0238*	-0.0003
Ind. index [15]	0.0429*	0.3242*	0.6719*	0.8093*	0.0055	0.0254*	0.0904*
Org. index [16]	0.0528*	-0.0623*	0.0364*	-0.0784*	0.0503*	-0.0134	-0.0201
Env. Index [17]	0.0011	0.0422*	-0.0049	0.0052	0.0123	-0.0189*	-0.0081
Loan spread [18]	0.0885*	-0.00120	0.0054	0.0311*	0.0329*	0.0598*	-0.0290*
Loan strictness [19]	-0.2391*	-0.0348*	-0.0154	-0.0710*	0.0045	0.0767*	-0.0320*

	[8]	[9]	[10]	[11]	[12]	[13]	[14]
Product diff. [8]	1						
Demand instab. [9]	0.0099	1					
Market growth [10]	0.0103	-0.0006	1				
Industry struct. [11]	-0.0567*	0.1390*	0.0536*	1			
Capacity int. [12]	0.0929*	0.0632*	-0.0215*	-0.0656*	1		
Resource avail. [13]	0.0397*	-0.0803*	-0.0051	-0.1975*	-0.0257*	1	
Instown HHI [14]	-0.0049	0.0070	-0.0185*	-0.0139	-0.0003	-0.0270*	1
Ind. index [15]	0.0530*	-0.0016	-0.0023	-0.0014	-0.0312*	-0.0629*	-0.0969*
Org. index [16]	-0.0283*	-0.0184	0.0450*	-0.0153	-0.2053*	-0.0188	0.9805*
Env. Index [17]	0.1752*	0.5333*	0.5894*	0.6460*	0.0115	-0.1610*	-0.0265*
Loan spread [18]	-0.0051	-0.0958*	-0.0104	-0.0662*	-0.0146	0.0206*	0.0887*
Loan strictness [19]	-0.0197*	-0.1101*	-0.0145	-0.0402*	-0.0180*	0.0924*	0.1133*

	[15]	[16]	[17]	[18]	[19]
Ind. index [15]	1				
Org. index [16]	-0.0950*	1			
Env. Index [17]	0.0158	-0.0166	1		
Loan spread [18]	0.0171*	0.1003*	-0.0933*	1	
Loan strictness [19]	-0.0808*	0.1102*	-0.1022*	0.5643*	1

V. Empirical Framework

Hypothesis 1a. Managerial Opportunism Incentives

The analysis of whether managerial opportunism is one determinant of managerial acceptance of covenant-lite loans can be estimated by employing the Probit regression framework in below:

$$Covenant - lite_{i,t} = \beta_1 + \beta_2 * ManagerialOpportunism_{i,t} + \beta_3 * Controls_{i,t} + \delta_{SIC3} + \delta_t + \varepsilon_{i,t} \quad (1)$$

where, the outcome variable of interest is *covenant-lite loan*, which is an indicator variable taking value of one if a loan deal does not contain maintenance covenants. The explanatory variable of interest is *individual-discretion index*, which describes a manager's desire to pursue personal interests that are beyond maximization of shareholders' interests. It is constructed based on executives' characteristics and power sources that may encourage the proliferation of opportunistic behaviors and rent expropriations. Thus, high degree of *individual-discretion index* indicates strong executive power base that could allow them to achieve additional rents. For its part, all factors (i.e., *CEO duality*, *CEO wealth*, and *CEO overconfidence*) loaded positively on individual-discretion index. I expect positive coefficient on *individual-discretion index*. Fixed effects for year and three-digit SIC code are included.

I include a variety of control variables that may also affect covenant-lite loan borrowings. Davydenko et al. (2020) argue covenant enforcement is useless for highly levered firms because an attempt to reinforce creditors' rights in technical default may result in even lower payoffs and ceding control rights to shareholders than waiving covenants. Thus, I follow the literature and use *leverage* – ratio of debt to market value - as one a control variable. Billett et al. (2016) and Badoer et al. (2023) argue high bank-borrower-relationship increases the likelihood of covenant-lite loan issuance for future relationship rent extraction. Hence, I control *relationship lending*, which is an indicator variable taking the value of one if there is at least one lead arranger was a lead arranger of previous loan issuing over a prior five-year period. In addition to leverage and relationship lending, I also control the *number of loan participants*. The following firm characteristics are included in the regressions as control variables. *Market-to-book ratio* is defined as market value of equity plus book value of liabilities divided by book value of assets. Since proportion of tangible assets to total assets may impact a firm's borrowing ability and furthermore impact covenant choices, I include *tangible-to-total asset* as proxy variable for borrowing ability. I also follow the literature and control for *firm size*, which is defined as natural logarithm of total assets.

Hypothesis 1b. Managerial Flexibility Incentives

The analysis of whether managerial flexibility is an alternative determinant of managerial acceptance of covenant-lite loans can be estimated by employing the following Probit regression framework:

$$Covenant - lite_{i,t} = \beta_1 + \beta_2 * ManagerialFlexibility_{i,t} + \beta_3 * Controls_{i,t} + \delta_{SIC3} + \delta_t + \varepsilon_{i,t} \quad (2)$$

where, the outcome variable of interest is *covenant-lite loan*, which is an indicator variable taking value of one if a loan deal does not contain financial maintenance covenants. The

explanatory variables of interest are *environmental-discretion index* and *organizational-discretion index*.

Environmental-discretion index describes competitiveness and complexity in an industry, thus a need for discretion increases when executives alter decisions in complex business environments. Besides, a high level of *environmental-discretion index* should also limit executive capacity to opportunistically make decisions for self-interests (Baixauli-Soler et al., 2020). For its part, environmental discretion is positively associated with *product differentiability*, *demand instability*, *market growth*, and *industry structure*.

Organizational-discretion index emphasizes a need for managerial flexibility that comes from the organization itself. Similar to *environmental-discretion index*, a high level of *organizational-discretion index* should also promote firm-decision makings linked to maximize shareholders' interests and limit opportunistic behaviors. For its part, only *resources availability* loaded negatively on *organizational-discretion index*, while *capacity intensity* and *ownership structure* loaded positively.

Environmental-discretion index and *organizational-discretion index* provide two different dimensions to capture a firm's need on managerial flexibility. *Environmental-discretion index* emphasizes a firm's need for flexibility in management from the external perspective, whereas *organizational-discretion index* highlights demand for managerial flexibility from its internal business structure.

I expect that there is a positive association between managerial acceptance of covenant-lite loans and proxies of managerial flexibility incentives based on my second hypothesis. Thus, the estimated coefficient β_2 is expected to be positive. The industry-fixed effect at first three digit SIC code and the year-fixed effect are included. The inclusion of control variables in regression analysis (2) are consistent with that in regression analysis (1).

Hypotheses 2a. and 2b. Cost of Borrowing Covenant-Lite Loans

In this sub-section, I examine how costs of borrowing covenant-lite loans reflect managerial discretion. I follow the frameworks below and regress proxy variables of managerial opportunism incentives and of managerial flexibility incentives on *interest rate spread* in model (3) and *loan strictness* in model (4) respectively.

$$\begin{aligned} \text{Loan Spread}_{i,t} = & \beta_0 + \beta_1 * \text{Cov-lite}_{i,t} + \beta_2 * \text{Managerial Opportunism}_{i,t} + \\ & \beta_3 * \text{Managerial Flexibility} + \beta_4 * \text{Managerial Opportunism}_{i,t} * \text{Cov-lite}_{i,t} + \\ & \beta_5 * \text{Managerial Flexibility} * \text{Cov-lite}_{i,t} + \beta_6 * \text{Controls}_{i,t} + \delta_{\text{SIC}3} + \delta_t + \varepsilon_{i,t} \end{aligned} \quad (3)$$

$$\begin{aligned} \text{Loan Strictness}_{i,t} = & \beta_0 + \beta_1 * \text{Cov-lite}_{i,t} + \beta_2 * \text{Managerial Opportunism}_{i,t} + \\ & \beta_3 * \text{Managerial Flexibility} + \beta_4 * \text{Managerial Opportunism}_{i,t} * \text{Cov-lite}_{i,t} + \\ & \beta_5 * \text{Managerial Flexibility} * \text{Cov-lite}_{i,t} + \beta_6 * \text{Controls}_{i,t} + \delta_{\text{SIC}3} + \delta_t + \varepsilon_{i,t} \end{aligned} \quad (4)$$

where, the outcome variables of interest are *loan spread* and *loan strictness* in model (3) and model (4) respectively. *Loan spread* is the all in drawn listed in Dealscan. *Loan strictness* is an aggregate measurement incorporating *loan spread*, *loan amount*, and *loan maturity* (Demerjian et al., 2020).

For loan characteristics, I control the *number of loan participants* in all regressions and *size of loan deals* in regressions in which *loan spread* is the dependent variable. The *size of loan*

deals is measured in millions. I include controls for a number of firm characteristics that might affect loan spreads or loan strictness. *Leverage* is defined as the ratio of long-term debt plus current debt liabilities to book value of assets. *Tangibility* is defined as the ratio of tangible-to-total assets. *Profitability* is calculated as pre-tax cash flow from operations over total assets. *Market-to-book ratio* is defined as the ratio of the market value of equity plus the book value of liabilities to the book value of assets. Since a borrower's creditworthiness may affect its loan spread, I include the most natural commonly used summary variable, *Altman Z score*, to proxy for creditworthiness.

VI. Regression Results and Discussion

Regression Results of Managerial Incentives and Propensity to Borrow Covenant-lite Loans

In Table 3, I present regression results of managerial opportunism incentives on managerial acceptance of covenant-lite loans in column (1) and obtain a positive and significant coefficient on individual discretion index at 10%, indicating managers' freedom to pursue personal interest may explain propensity to borrow covenant-lite loans. Empirical analyses on managerial opportunism incentives find support for the predictions from my hypotheses. The significance on managerial opportunism incentives indicates that propensity to borrow covenant-lite loans increases with strong executive power, and likelihood of maintenance covenants excluded in loan agreements ex-ante is driven by executive opportunism. The demand for looser ongoing monitoring from lenders is significantly and positively associated with strong executive power base.

In Table 3, I present Probit regression results on managerial flexibility incentives in column (2), the result shows a positively significant coefficient on organizational discretion index. This suggests managerial acceptance of covenant-lite loans is highly related to a firm's demand for managerial flexibility incentives, and this need for flexibility in management is from its internal. Column (3) shows insignificant coefficient on environmental discretion index. Empirical analyses on managerial flexibility incentives find support for the prediction from my hypotheses. The significance at 5% level on organizational discretion index indicates that the likelihood of covenant-lite loan borrowing increases with firm's need of flexibility on management to deal with internal uncertainty.

Domination of managerial incentives and Propensity to Borrow Covenant-lite Loans

In column (1) and (2) of Table 4, I test domination of managerial opportunism incentives vs. managerial flexibility incentives in terms of propensity to borrow covenant-lite loans. Empirical analyses find that managerial opportunism incentives dominate managerial flexibility incentives when it comes to managers' incentives to borrow covenant-lite loans. The covenant-lite loan borrowers' demand for looser monitoring from lenders is largely driven by managerial opportunism as confirmed by positive coefficients of individual-discretion index at 5% and 10% significance levels in column (1) and column (2) respectively. This is consistent with the idea that more executive power base being more likely to borrower-flexible loan contracts.

To provide empirical results on whether organizational discretion index dominates environmental discretion index, I examine these two indexes in one regression at once, and column (3) presents results for both organizational discretion index and environmental discretion index.

Table 3: Likelihood of Borrowing Covenant-Lite Loans and Managerial Discretion

This table presents estimates of Probit regression in which the dependent variable is an indicator that takes value equal to one if a firm becomes a covenant-lite borrower in a given year, and zero otherwise. The sample consists of firm-year observations covered in Compustat, Execucomp, and Dealscan over the period 2005 – 2019. All explanatory variables are measured one year before the covenant-lite loan issuance. P-values reported in parentheses are based on standard errors adjusted for heteroskedasticity and clustering at the firm level. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

	Dependent variable = Covenant-lite (an indicator)		
	(1)	(2)	(3)
Ind. index	0.0479* (0.072)		
Org. index		0.575** (0.034)	
Env. index			0.0353 (0.538)
Relationship lending	0.147 (0.214)	0.0607 (0.723)	0.0613 (0.511)
#Loan participants	0.0104 (0.133)	-0.00533 (0.596)	0.00466 (0.317)
Leverage	-0.0383* (0.056)	0.0297 (0.426)	-0.0364* (0.068)
Market-to-book	-0.0136 (0.689)	0.0708* (0.066)	0.0498* (0.062)
Tangibility	-0.640* (0.066)	-1.340** (0.030)	-0.401*** (0.007)
Firm size		0.201*** (0.000)	0.155*** (0.000)
_cons	-1.351** (0.017)	-1.472** (0.020)	-2.146*** (0.000)
Year fixed effects	Y	Y	Y
Industry fixed effects	Y	Y	N
<i>N</i>	2008	812	2909
<i>R</i> ²	0.2538	0.2623	0.1743

Table 4: Domination of Managerial Incentives in Borrowing Covenant-lite Loans

This table presents estimates of Probit regression in which the dependent variable is an indicator that takes value equal to one if a firm becomes a covenant-lite borrower in a given year, and zero otherwise. The sample consists of firm-year observations covered in Compustat, Execucomp, and Dealscan over the period 2005 – 2019. All explanatory variables are measured one year before the covenant-lite loan issuance. P-values reported in parentheses are based on standard errors adjusted for heteroskedasticity and clustering at the firm level. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

	Dependent variable = Covenant-lite (an indicator)		
	(1)	(2)	(3)
Ind. index	0.326** (0.022)	0.0425* (0.087)	
Org. index	0.468 (0.158)		0.590** (0.014)
Env. index		0.0323 (0.626)	0.0155 (0.876)
Relationship lending	0.0522 (0.796)	0.0432 (0.678)	-0.0254 (0.860)
#Loan participants	-0.00257 (0.832)	0.0114** (0.020)	-0.00461 (0.549)
Leverage	0.0452 (0.257)	-0.0339 (0.114)	0.0554 (0.134)
Market-to-book	-0.0256 (0.605)	-0.0243 (0.421)	0.0652* (0.053)
Tangibility	-2.236*** (0.004)	-0.361** (0.026)	-0.596* (0.068)
Firm size			0.244*** (0.000)
_cons	0.279 (0.643)	-0.976*** (0.000)	-2.630*** (0.000)
Year fixed effects	Y	Y	Y
Industry fixed effects	Y	N	N
<i>N</i>	584	2424	1052
<i>R</i> ²	0.2726	0.1641	0.1974

Regression Results of Managerial Discretion and Costs of Borrowing Covenant-lite Loans

I next examine how managerial discretion impacts costs of borrowing covenant-lite loans. Particularly, I consider whether lenders “trade-off” loosen monitoring with higher loan spreads in this borrower-flexible loan type. In column (2), an interaction term – Cov-lite*Organizational Discretion – is positively significant at 5% level, and my explanation is that lenders need to be compensated for taking additional risks with higher loan spreads. The organizational discretion index presents need for managerial flexibility to deal with firm-specific uncertainty. The positive coefficient on the interaction term – Cov-lite*Organizational Discretion – indicates that lenders view firm-specific uncertainty as a reason for taking additional compensation for bearing risks.

In Table 6, I replaced loan spread with loan strictness (Demerjian et al., 2020), which is an aggregate measure of contract strictness incorporating loan spread, loan amount, and loan maturity. Similar to predictions on loan spread, the interaction term – Cov-lite*Organizational Discretion – is positively significant at 1% level in column (2). My findings on the positive coefficients of interaction terms with organizational discretion index hint that lenders mainly view firm-specific uncertainty as a reason for imposing stricter aggregate loan provisions for bearing risks.

Table 5: Cost of Borrowing Covenant-Lite Loans and Managerial Discretion

The table presents estimates of standard OLS regression results in which dependent variable is loan spread at facility level. The sample consists of firm-year observations. All explanatory variables are measured one year before the covenant-lite loan issuance. P-values reported in parentheses are based on standard errors adjusted for heteroskedasticity and clustering at the firm level. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

	Dependent variable = Loan spread			
	(1)	(2)	(3)	(4)
Covlite	70.27*** (0.000)	96.17*** (0.000)	80.72*** (0.000)	76.44*** (0.000)
Ind. index	6.934*** (0.001)			13.44* (0.071)
Covlite*Ind.index	0.789 (0.876)			9.287 (0.736)
Org. index		9.813 (0.589)		7.775 (0.708)
Covlite*Org.index		104.7** (0.011)		54.35 (0.139)
Env. index			-9.246 (0.143)	
Covlite*Env.index			4.570 (0.658)	
#Loan participants	-1.608***	-3.556***	-1.880***	-3.242***

	(0.000)	(0.000)	(0.000)	(0.000)
Leverage	2.778 (0.251)	7.273** (0.041)	4.478 (0.165)	8.280* (0.060)
Tangibility	82.15***	32.95	16.75	47.39
Market-to-book	-6.701** (0.033)	-5.837** (0.031)	-2.137 (0.426)	-4.622 (0.108)
Profitability	-77.53*** (0.001)	-50.16** (0.028)	-81.12*** (0.000)	-56.30** (0.019)
Altman z	0.000775** (0.026)	0.000717 (0.138)	0.000224 (0.544)	0.00129** (0.013)
Firm size		4.727 (0.325)	7.824*** (0.005)	
Loan amount	-1.95e-08*** (0.004)	-1.78e-08** (0.017)	-2.45e-08*** (0.000)	-2.02e-08** (0.013)
_cons	244.7*** (0.000)	372.8*** (0.000)	250.9*** (0.003)	396.0*** (0.000)
Year fixed effects	Y	Y	Y	Y
Industry fixed effects	Y	Y	N	Y
N	2773	1194	3052	1038
R ²	0.307	0.373	0.196	0.406

Table 6: Loan Strictness of Covenant-Lite Loans and Two Managerial Incentives

The table presents estimates of standard OLS regression results in which dependent variable is loan strictness at facility level. The sample consists of firm-year observations. All explanatory variables are measured one year before the covenant-lite loan issuance. P-values reported in parentheses are based on standard errors adjusted for heteroskedasticity and clustering at the firm level. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

	Dependent variable = Loan strictness			
	(1)	(2)	(3)	(4)
Covlite	-0.0428*** (0.000)	-0.0141 (0.543)	-0.0343*** (0.000)	-0.0171 (0.518)
Ind. index	-0.00775** (0.021)			-0.0312*** (0.009)
Covlite*Ind. index	0.0117* (0.088)			0.0542 (0.147)

Org. index		0.0388 (0.225)		0.0752** (0.025)
Covlite*Org. index		0.115** (0.010)		0.115** (0.022)
Env. index			-0.0220*** (0.005)	
Covlite*Env. index			0.0123 (0.281)	
#Loan participants	-0.00673*** (0.000)	-0.00590*** (0.000)	-0.00525*** (0.000)	-0.00732*** (0.000)
Leverage	0.00303*** (0.009)	0.00182 (0.596)	0.00375*** (0.001)	-0.00243 (0.299)
Tangibility	0.0574** (0.032)	0.0340 (0.413)	-0.00189 (0.887)	0.0177 (0.715)
Market-to-book	-0.00660* (0.079)	-0.00805** (0.021)	-0.00936*** (0.004)	-0.00196 (0.628)
Profitability	-0.0679*** (0.000)	-0.0935*** (0.000)	-0.0752*** (0.000)	-0.0599** (0.026)
Altman z	0.000000372 (0.499)	0.00000216** (0.030)	0.00000309*** (0.000)	-0.000000157 (0.790)
Firm size		-0.0282*** (0.000)	-0.0331*** (0.000)	
_cons	0.550*** (0.000)	0.807*** (0.000)	0.774*** (0.000)	0.648*** (0.000)
Year fixed effects	Y	Y	Y	Y
Industry fixed effects	Y	Y	Y	Y
<i>N</i>	2748	1184	3021	1028
<i>R</i> ²	0.421	0.503	0.335	0.516

VII. Robustness Tests

Sub-Sample Regression Results

In Table 7 and Table 8, I reduce observations to a sub-sample containing only covenant-lite borrowers and run regressions on loan spread and loan strictness, respectively. The sub-sample regression results on loan spread are presented in column (2) of Table 7 and are consistent with full sample's regression results. Particularly, in regressions on loan spread, organizational discretion is positively significant at 1% level, indicating that covenant-lite loan lenders view firm-level uncertainty as a reason for taking additional compensation for bearing risk. In column (2) of Table 8, the sub-sample regression results on loan strictness are consistent with full sample's regression results. The regression results suggest that lenders impose stricter aggregate loan provisions to covenant-lite loan borrowers when borrowers demand flexibility in management due to firm-level uncertainty.

Overall, the regression results on loan spread and loan strictness suggest that lenders view need for managerial flexibility due to firm-level uncertainty and industry-level uncertainty differently. Lenders impose higher cost of borrowing fees (i.e., loan spreads) and stricter aggregate loan provisions when firms borrow covenant-lite loans because they need flexibility to deal with firm-level uncertainty. On the contrary, lenders impose looser aggregate loan provisions if the incentive to borrow covenant-lite loans is because the borrower demands managerial flexibility to deal with external uncertainty measured at the industry-level.

Table 7: Examining Cost of Borrowing Covenant-Lite Loans and Two Managerial Incentives in a Sub-Sample of only Covenant-Lite Borrowers

The table presents estimates of standard OLS regression results in which dependent variable is loan spread at facility level. The sample consists of *covenant-lite* borrowing firm-year observations. All explanatory variables are measured one year before the covenant-lite loan issuance. P-values reported in parentheses are based on standard errors adjusted for heteroskedasticity and clustering at the firm level. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

	Dependent variable = Loan spread			
	(1)	(2)	(3)	(4)
Ind. index	-18.03 (0.275)			46.32* (0.099)
Org. index		126.2*** (0.000)		70.60** (0.029)
Env. index			-8.565 (0.214)	
#Loan participants	-4.353*** (0.001)	-3.978* (0.084)	-2.578*** (0.005)	-6.919*** (0.005)
Leverage	6.010 (0.500)	53.00* (0.094)	14.08 (0.234)	109.8** (0.025)
Tangibility	-1.235	18.33	35.11	-24.86

	(0.985)	(0.807)	(0.259)	(0.890)
Market-to-book	-23.07** (0.028)	-23.09* (0.087)	-24.57*** (0.008)	-41.85* (0.061)
Profitability	-5.878 (0.845)	68.44 (0.406)	-54.02* (0.070)	-17.40 (0.853)
Altman z	0.000397 (0.789)	0.00566 (0.386)	0.000603 (0.540)	0.00377 (0.373)
Firm size		-48.59* (0.057)	-19.87** (0.022)	
Loan amount	-1.05e-08 (0.380)	-1.23e-09 (0.942)	-7.59e-09 (0.264)	-2.89e-08 (0.244)
_cons	233.7*** (0.000)	934.3*** (0.000)	468.2*** (0.000)	491.0*** (0.000)
Year fixed effects	Y	Y	Y	Y
Industry fixed effects	Y	Y	N	Y
N	293	163	348	127
R ²	0.662	0.638	0.265	0.677

Table 8: Examining Loan Strictness of Covenant-Lite Loans and Two Managerial Incentives in a Sub-Sample of only Covenant-Lite Borrowers

The table presents estimates of standard OLS regression results in which dependent variable is loan strictness at facility level. The sample consists of *covenant-lite* borrowing firm-year observations. All explanatory variables are measured one year before the covenant-lite loan issuance. P-values reported in parentheses are based on standard errors adjusted for heteroskedasticity and clustering at the firm level. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

	Dependent variable = Loan strictness			
	(1)	(2)	(3)	(4)
Ind. index	-0.00652 (0.699)			0.0262 (0.560)
Org. index		0.136*** (0.001)		0.161*** (0.000)
Env. index			-0.0152* (0.079)	
#Loan participants	-0.00471** (0.014)	-0.000890 (0.769)	-0.00247** (0.027)	-0.00408 (0.191)
Leverage	-0.00595 (0.454)	0.0309 (0.340)	-0.00519 (0.508)	0.0196 (0.718)

Tangibility	-0.128 (0.117)	-0.0877 (0.470)	0.0165 (0.666)	-0.223 (0.156)
Market-to-book	-0.0176 (0.121)	-0.0188* (0.100)	-0.0321*** (0.001)	-0.00334 (0.862)
Profitability	-0.0147 (0.728)	-0.0271 (0.704)	-0.0375 (0.213)	-0.0834 (0.334)
Altman z	0.00000186 (0.220)	0.000000330 (0.947)	0.00000128 (0.270)	-0.00000168 (0.607)
Firm size		-0.0423* (0.062)	-0.0312*** (0.000)	
_cons	0.336*** (0.000)	1.040*** (0.000)	0.831*** (0.000)	0.781*** (0.000)
Year fixed effects	Y	Y	Y	Y
Industry fixed effects	Y	Y	N	Y
<i>N</i>	292	163	346	127
<i>R</i> ²	0.595	0.695	0.220	0.764

VII. Conclusion

The appearance of covenant-lite loans, viewed as borrower-flexible loan type, is merging phenomenon in the leveraged loan segment in syndicated loan market. One string of prior work studied the emergence of covenant-lite loans based on fundamental firm characteristics (Davydenko et al., 2020; Demerjian et al., 2020), or lender base (Becker & Ivashina, 2016; Berlin et al., 2020; Billett et al., 2016c). Another string studied consequences of covenant-lite loans ex-post (Demerjian et al., 2020). I fulfill the literature by examining whether and how managerial discretion and its two dimensions may impact managerial acceptance of this borrower-flexible loan type. This study contributes to covenant-lite-related literature by empirically extending knowledge on loan selection and by showing how different managerial incentives influence covenant-lite loan contracting.

I examine covenant-lite loan borrowings from perspectives of different managerial incentives. From results on covenant-lite loan selection and managerial incentives, I find that managerial opportunism incentives significantly dominate managerial flexibility incentives in borrowing covenant-lite loans after controlling for other borrower and loan features, suggesting that stronger executive power base being more likely to borrower-flexible loan contracts. Being consistent with managerial opportunism hypothesis (Beatty et al., 2002; Chava et al., 2010), these findings help to understand role of executives on influencing covenant-lite loan contracting. From a managerial incentive viewpoint, borrowers' need for looser monitoring is largely driven by managerial opportunism incentives.

To understand costs of borrowing covenant-lite loans, I examine loan spreads and loan strictness. My evidence shows that lenders set higher loan spread and stricter loan provisions to

covenant-lite loan borrowers when the loan is taken due to organizational discretion, which describes borrowers demand for flexibility in management to deal with firm-specific uncertainty. This is consistent with lack of maintenance covenants causing costly consequences of covenant-lite borrowers (Demerjian et al., 2020).

My findings confirm that managerial incentives as being a key factor to consider in understanding of loan selection and costs of borrowing covenant-lite loans and also offer an empirical approach to the influences of all managerial incentive dimensions (i.e., individual-discretion, organizational-discretion, and environmental discretion) on borrowing covenant-lite loans. Specifically, my results show that firms with strong executive power base often influence loan selection in order to ensure contracting terms consistent with their opportunistic interests. Given that on-going monitoring is missing in covenant-lite loans since maintenance covenants are excluded from the contracts ex-ante, lenders tend to increase borrowing costs and to impose more intense loan strictness ex-ante if the incentive to borrow covenant-lite loans is related to the demand for managerial flexibility due to business uncertainty from the internal. However, environmental discretion (demand for managerial flexibility to deal with external industry uncertainty) just plays the opposite role by yielding less strict aggregate loan provisions. Going further, my findings suggest that lenders view managerial flexibility incentives from two different perspectives, namely organizational discretion, and environmental discretion. Each of them has different impact on aggregate provisions of covenant-lite loan contracting.

Finally, this study has some limitations which in turn offer interesting research angles for future. First, the number of covenant-lite observations is limited since covenant-lite loans are relatively a small portion of leveraged loan segment in syndicated loan market. I expect lack of maintenance covenants in loan contracting ex-ante as loan market innovation (Austin, 2022; Becker & Ivashina, 2016) allow this firm of financing to dominate syndicated leveraged loans due to large base of institutional investors and a switch of originate-to-hold to originate-to-distribute. Second, this research does not look at the impact on loan collateral or loan purpose, thus future research might take into consideration. Finally, since this paper is the first to study the association between managerial incentives and managerial acceptance of covenant-lite loans, fresh evidence is required to complement my study and to show how this borrower-flexible loan type will behave when being exposed to economic downturns as well as how lenders can design loan contracts accordingly taken the impact of managerial incentives on selection of covenant-lite loan into consideration.

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Appendix 1: Covenant-Lite Loan Sample

This table shows details on the covenant-lite loans included in my sample. My sample consists of covenant-lite loans made to public borrowers with sufficient firm and loan features available to run regressions during the period 2005 to 2019. The table shows the number of loans, the percentage of covenant-lite loans to leveraged loans, and cumulative percentages.

Year	Number of cov-lite loans	Percentage of cov-lite loans to leveraged loans	Cum. Percent.
2005	2	0.44	0.44
2006	8	1.77	2.22
2007	11	2.44	4.66
2008	0	0.00	4.66
2009	0	0.00	4.66
2010	2	0.44	5.10
2011	10	2.22	7.32
2012	7	1.55	8.87
2013	54	11.97	20.84
2014	51	11.31	32.15
2015	39	8.65	40.80
2016	50	11.09	51.88
2017	93	20.62	72.51
2018	102	22.62	92.12
2019	22	4.88	100.00
Total	451	100.00	

Appendix 2: Variable Description

Variable	Description	Source
Mgmt. Incentives		
CEO duality	One if the CEO is also the chair of the board, and zero otherwise	Execucomp
CEO wealth	The total value of equity-linked wealth over market capitalization	Compustat, Execucomp
AQC	Acquisitions made by the firm	Compustat
Debt-equity	The long-term debt divided by the market value of the firm	Compustat
Debt	One if there is convertible debt or preferred stock over total assets	Compustat
Excess investment	The firm's residual from a regression of total asset growth on sales growth residual	Compustat
Product diff.	The industry median of sales, general and administrative expenses, which includes advertising expenses, scaled by the median of sales of all the companies in the industry, measured at three-digit sic code	Compustat
Demand instability	The industry standard deviation of annual sales growth (five-year rolling window) in the period studied, measured at three-digit sic code	Compustat
Market growth	The industry median sales growth, measured at three-digit sic code	Compustat
Industry structure	Industry concentration in the period examined (based on market shares) through the Herfindahl index, measured at three-digit sic code	Compustat
Capacity intensity	Total property, plant and equipment over total employees	Compustat
Resource availability	The ratio of R&D expenditures on firm sales	Compustat
Instown. HHI	The ownership concentration ratio in the period analyzed (through the Herfindahl index, which is calculated on the five largest shareholders within a firm)	Thomson Reuters 13f
Ind. index	Component analysis of CEO duality, CEO wealth, Aqc., debt-equity, debt, and excess investment	Compustat, Execucomp
Org. index	Component analysis of capacity intensity, resource availability, and institutional HHI	Compustat, Thomson Reuters 13f

Env. index	Component analysis of product differentiability, demand instability, market growth, and industry structure	Compustat
Loan Features		
Covenant-lite	Indicator takes value of one if a loan deal is with covenant-lite tranche. A covenant-lite tranche is classified based on indicators in Dealscan. Dealscan provides covenant data in the market segment file at facility level and include a segment called "Covenant Lite" indicating an individual facility has no maintenance covenants ex-ante	Dealscan
Relationship lending	One if there is at least one lead arranger was a lead arranger of previous loan issuing over a prior five-year period	Dealscan
Loan spread	The all-in drawn spread of the loan	Dealscan
Loan strictness	The average score of scaled decile ranks of interest spread, maturity, and loan size by deal active year, with higher deciles ranks for loans with higher interest spreads, shorter maturities, and smaller loan size	Dealscan
#Loan participants	The number of distinct lead lenders from the facilities that took place in the prior 5 years	Dealscan
Loan amount	The size of the loan facility in millions	Dealscan
Firm Features		
Profitability	The firm's pre-tax cash flow from operations over total assets	Compustat
Altman-z	$1.2*(ACTQ-LCTQ)/ATQ + 1.4*REQ/ATQ + 3.3*(NIQ+XINTQ+TXTQ)/ATQ + (0.6*CSHOQ*PRCCQ)/LTA + 0.999*SALEQ/ATQ$	Compustat
Leverage	$[Long\text{-}term\ debt\ (dltt) + short\text{-}term\ debt\ (dlc)] / total\ assets\ (at)$	Compustat
Market-to-book	Market value of equity ($CSHO*PRCCQ$) plus long-term debt ($DLTTQ$) divided by total assets (ATQ)	Compustat
Firm age	Logarithm of max (years in Compustat)	Compustat
Tobin's q	$[Total\ assets\ (at) - common/ordinary\ equity\ (ceq) + market\ value\ of\ equity\ (prcc_f \times csho)] / total\ assets\ (at)$	Compustat
Sales growth	$Sales_t / sales_{t-1}$	Compustat
ROA	Net income (ni) / total assets (at)	Compustat
Tangibility	Property, Plant, & Equipment ($PPENTQ$) divided by total assets (ATQ)	Compustat
Firm size	Logarithm of total assets (at)	Compustat