Private Lenders' Demand for Audit

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Introduction

- We study the nature and antecedents of demand for audit services from private lenders through a study of US syndicated loan agreements between 1996 and 2012

- Our research is motivated by:
    1. Significant regulatory interest (e.g. OECD, House of Lords, Competition Commission) in whether lenders restrict borrowers' choice of audit; and
    2. Increasing recognition in the finance literature of the importance of debt finance and in creditors' role in corporate governance *outside of payment default states* (e.g. Nini, Smith and Sufi, 2012)

- Data collected through computerised text analysis of loan contracts, where agreements are searched for variation in auditors' obligations to lenders

- We find:
    – There is significant variation in auditors' obligations on loan contracts
    – This variation is systematically related to factors identified in the contracting and accounting literature as potential influences over audit demand

Regulatory Concerns

- Presence of restrictive auditor clauses in loan agreements is a recurrent issue in the international regulatory environment
  - OECD: "*In certain countries including the USA, UK, Germany, Spain and Finland we have encountered clauses or requirements in contractual agreements between companies and their banks or underwriters that only the Big 4 audit firms can provide audit services to the company. [This] can distort the market for audit services by excluding certain audit firms from competing in this market*"

- Doubts over how common such clauses are (or even whether they truly exist), but no evidence on either their prevalence, nature, causes or consequences

- Report for the UK CC based on European documentary evidence found that Big 4 clauses vary in nature and some are more common than others

- Academic literature views such clauses as a more benign and potentially an effective contracting mechanism

University of BRISTOL

Increasing recognition that banks are influential over corporate governance mechanisms in general (Triantis and Daniels, 1995) and financial reporting in particular (Ball et al., 2009)

Nini et al. (2012): Creditors' role in corporate governance extends beyond payment default states and in the 'mixed' region, may well be as influential as equity holders.

Accounting Information and Debt Markets
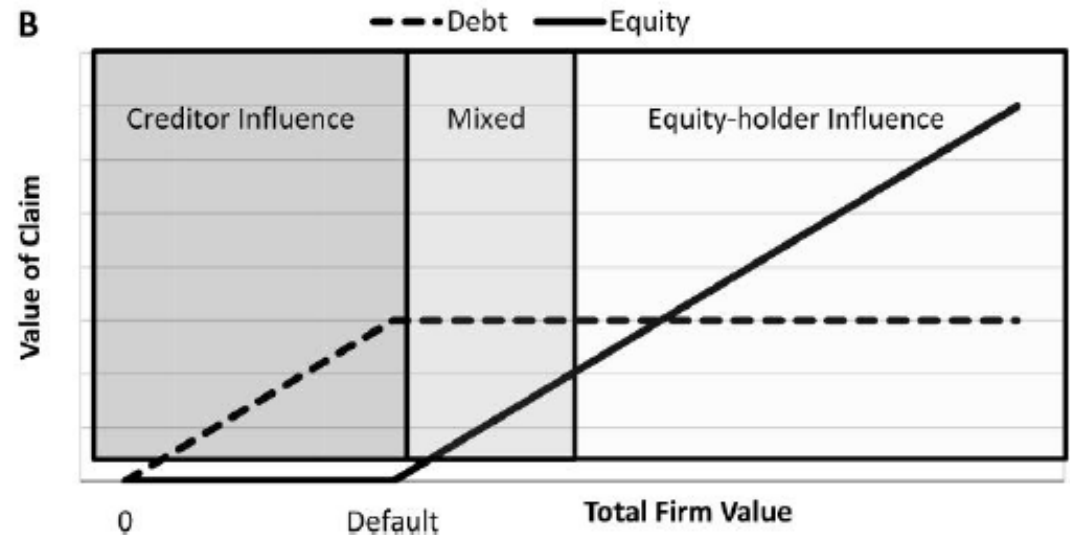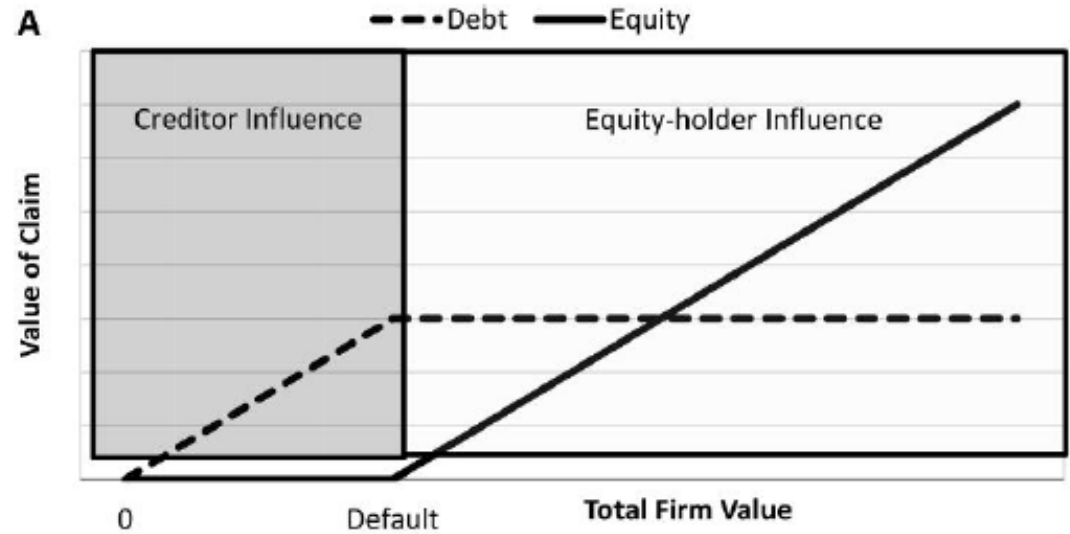
- Accounting information plays a major role in reducing various agency conflicts between debt and equity investors (Smith and Warner, 1979; Watts and Zimmerman, 1986; Armstrong et al., 2010; Shivakumar, 2013)
    – Conflicts include increased dividend payments, future increases in debt levels, asset substitution and underinvestment
- Accounting-based covenants commonly exist to limit dividends and investment in risky projects and prohibit more debt being issued

- Demand for audit arises from the need to monitor compliance with the covenants

- Townsend (1979) [citing Arrow, 1974]:

If a contract is contingent on an event, then it must be known whether or not the event occurred.

Empirical Research on Audit and Debt Markets

- Most prior studies focus on the role of audit and audit quality in public debt markets
  - Bond contract terms (price and non-price) more favorable for firms with high quality audit (Ansi et al., 2004; Lou and Vasvari, 2011)

- Very little research on *private* debt markets' demand for audit
  - Lower interest rates reported for bank borrowers with auditors (Blackwell et al., 1998) and Big 4 auditors Kim et al., 2013)
  - Relies on 'signalling' as the rationale for this finding and has not examined lenders' demand for audit directly

Our Measures of Demand for Audit

1. Covenant Compliance Obligation (CCO)

2. Whether the audit firm responsible for auditing the main financial statements is specified in the contract (Auditor Name Clause)

3. Composite (ordinal) Auditor Obligation measure combining both 1 and 2 above

Albertson's Inc. (2000)

*… simultaneously with the delivery of each set of financial statements referred to in subsection (a)****, a statement of the Independent Auditor*** *which reported on such statements (i) whether anything has come to their attention to cause them to believe that any Default existed on the date of such statements and (ii) confirming the calculations set forth in the Compliance Certificate delivered simultaneously therewith pursuant to subsection (c)*

(N.B. Examples of CCOs in Watts [1977] and Watts and Zimmerman [1986])

Atricure, Inc (2008)

together with a certificate of the ***chief financial officer****,* ***principal accounting officer or chief executive officer of Borrower****, in the form of the Compliance Certificate, stating that, as of the date of such certificate, to the best of his knowledge and after reasonable inquiry, no event has occurred which constitutes a Default or an Event of Default or, if a Default or an Event of Default has occurred and is continuing*

Examples of Auditor Name Clauses

Advance Auto Parts (2006) [must supply financial statements] *"all reported on by Deloitte & Touche LLP or other independent public accountants of recognized national standing"*

Healthcare Recoveries (2001) *"and accompanied by (i) the opinion with respect to such consolidated financial statements of PricewaterhouseCoopers or another "Big Five" (or similarly designated) independent certified public accountant selected by the Borrower"*

Ezcorp, Inc. (2008) *"audited and certified by BDO Seidman, LLP, or other independent certified public accountants of recognized standing acceptable to the Agent"*

American Ecology Corporation (2002) *"audited by independent certified public accountants selected by the Borrower and acceptable to the Bank."*

Do Clauses Matter Economically?

For CCOs

LSTA documentation (2009) notes:

"*Lenders frequently ask for the borrower's independent accountants to confirm compliance with the covenants. This is often met with resistance. Borrowers largely object on economic grounds; if accountants are required to say anything beyond their customary audit confirmation, they will increase their audit fees... Whether this ... is actually important is unclear*"

For Name Clauses

UK and US Case law rely on tests such as 'reasonable foreseeability' to decide whether auditors are liable to third parties (Gwilliam, 1987; Brecht, 1989; Pacini et al., 2000)

CCAB UK: Auditors may inadvertently be extending their liability to banks through contractual agreements that they know lenders will rely on the information they provide

Hypotheses

1. Information asymmetries between borrower and lenders
   - Lower proportion of tangible assets to total assets (e.g. Skinner, 1993; Armstrong et al., 2010; DeFond and Zhang, 2013)

2. Information asymmetries between lenders
   - Number of lenders in the loan syndicate (Dennis and Mullineaux 2000; Sufi, 2007; Kim et al., 2011)

3. Suitability of accounting for debt *versus* equity purposes
   - Contractual adjustment of financial statements to eliminate debt figures measured under fair value (SFAF 159/ASC 825), which is argued to result in wealth transfers from debt to equity providers (Barth et al., 2008; Demerjian et al., 2014)

- Develop search terms designed to identify contracts with and without:
  – Auditor Name Clauses (Big N and Top 30 from 1996-2012)
  – Covenant compliance obligations
  – Fair value opt-outs of SFAS 159/ASC 825 (post 2009 only)

- Checking procedures: manually examined random sample of 200 contracts and obtain accurate classification of audit clauses in 90% of cases
  – Idiosyncratic language means 100% accuracy is not possible
  – Accuracy level comparable with (better than) prior research (e.g. Nini et al., 2012 in *RFS*)

- Fair value clauses have even higher classification accuracy

Constructing the Sample

1. Use Perl script developed by Andrew Leone to download all 8-K, 10-Q and 10-K filings from SEC EDGAR for 1996-2012 (circa 2 million filings)

2. Isolate all filings containing a loan agreement (about 19K observations)

3. Download from Compustat sample for the same period with necessary annual data (about 135K firm years)

4. Download Dealscan data for the same period all observations with the necessary data (circa 122K loan packages)

5. Use the Dealscan link file generously provided by Chava and Roberts to merge Dealscan and Compustat (circa 42K observations)

6. Finally, merge SEC contract data with the Dealscan/Compustat link, ending up with around 6,500 observations with all necessary data for 2,800 firms

(Final sample size compares favourably with similar prior research)

	VARIABLE DEFINITIONS
CCO_CLAUSE	Binary variable equal to 1 if the loan agreement contains an auditor covenant compliance obligation, 0 otherwise
NAME_CLAUSE	Binary variable equal to 1 if the loan agreement contains clause naming the auditor providing the audited financial statement information, 0 otherwise
AUDIT_OBLIGATION	Variable = 0 if the contract contains neither a *CCO_CLAUSE* or a *NAME_CLAUSE*; 1 if the contract names a mid-tier auditor; 2 if the contract names a big 4 auditor; 3 if the contract has a *CCO_CLAUSE*; 4 if the contract has both a *CCO_CLAUSE* and a *NAME_CLAUSE*.
FAIR_VAL_CLAUSE	Binary variable equal to 1 if the loan agreement contains definition of debt that excludes debt measured under fair value standards SFAS 159 or ASC 825
TANGIBILITY	Net property, plant, and equipment, divided by total assets.
lnSYN_SIZE	The natural log of the number of lenders in the lending syndicate.
MATURITY	Loan maturity measured in months.
DIVIDEND	Common dividends divided by total assets.
ROA	The ratio of income before extraordinary items to total assets.
LEVERAGE	Long-term debt divided by total assets.
NUM_COV	The number of covenants in the loan contract.
BOOK_MKT	The book value of equity divided by market value of equity.
SPREAD	The total annual all-in-spread drawn (in basis points) paid for each dollar drawn down under the loan commitment.
lnFACILITY_AMT	The natural log of facility size.
lnMKTVAL	The natural log of market value of equity
REVOLVER	Indicator variable that equals 1 for revolving loans, and 0 for all other types of loans.
CURRENT	Current ratio (i.e. the ratio of current assets to current liabilities).
Z_SCORE	Altman's (1968) Z-score= 1.2 (Working Capital/Total Assets) + 1.4 (Retained Earnings/ Total Assets) + 3.3 (Earnings Before Interest and Taxes/Total Assets) + 0.6 (Market Value of Equity/Book Value of Liabilities) + 0.999 (Net Sales/Total Assets).
SP_RATED	Indicator variable that equals 1 if the borrower has an S&P rating, and 0 otherwise.
SECURED	Secured equals one when the agreement is secured with collateral.

Descriptive Statistics

	Sample with CCO_CLAUSE				Sample without CCO_CLAUSE				Total Sample			
	N	Mean	Median	S.D.	N	Mean	Median	S.D.	N	Mean	Median	S.D.
TANGIBILITY	3,267	0.35	0.28	0.25	3,177	0.31	0.25	0.23	6,444	0.33	0.27	0.24
lnSYN_SIZE	3,267	8.51	6.00	8.52	3,177	7.91	6.00	7.47	6,444	8.21	6.00	8.02
TOTAL ASSETS ($m)	3,267	4,833	932	13,699	3,177	1,907	671	3,884	6,444	3,390	754	10,233
MATURITY (mths)	3,267	43.43	48.00	21.96	3,177	48.04	59.00	19.88	6,444	45.70	48.00	21.09
NUM_COV	3,267	2.09	2.00	1.36	3,177	2.43	2.00	1.36	6,444	2.26	2.00	1.37
DIVIDEND	3,267	0.01	0.00	0.01	3,177	0.01	0.00	0.01	6,444	0.01	0.00	0.01
ROA	3,267	0.02	0.04	0.11	3,177	0.02	0.04	0.10	6,444	0.02	0.04	0.11
LEVERAGE	3,267	0.23	0.20	0.19	3,177	0.24	0.21	0.20	6,444	0.24	0.21	0.20
BOOK_MKT	3,267	0.47	0.47	1.42	3,177	0.50	0.48	1.44	6,444	0.48	0.47	1.43
SPREAD	3,267	181.81	150.00	146.69	3,177	201.21	175.00	136.07	6,444	191.38	175.00	141.87
FACILITY_AMT ($m)	3,267	459	160	1280	3,177	257	140	396	6,444	359	150	959
MKT_VAL ($m)	3,267	4,435	798	12,826	3,177	1,887	555	4,630	6,444	3,179	647	9,777
REVOLVER	3,267	0.70	1.00	0.46	3,177	0.71	1.00	0.45	6,444	0.71	1.00	0.46
CURRENT	3,267	1.89	1.59	1.24	3,177	2.01	1.75	1.21	6,444	1.95	1.68	1.23
Z_SCORE	3,267	3.48	2.83	3.16	3,177	3.59	2.94	3.02	6,444	3.53	2.89	3.09
SP_RATED	3,267	5.57	1.00	6.50	3,177	4.92	0.00	6.24	6,444	5.25	0.00	6.38
SECURED	3,267	0.51	1.00	0.50	3,177	0.62	1.00	0.49	6,444	0.56	1.00	0.50

Distribution of Auditor Clauses across Fama-French Industries				
	N	%	% with CCO_CLAUSE	% with NAME_CLAUSE
Consumer Non-Durables	535	8.30	56.82	63.18
Consumer Durables	231	3.58	51.95	56.71
Manufacturing	1,020	15.83	51.86	51.37
Oil, Gas, and Coal	513	7.96	37.04	49.71
Chemicals and Allied Products	228	3.54	40.79	61.84
Business Equipment	864	13.41	48.50	50.46
Telephone and Television Transmission	259	4.02	47.88	63.71
Utilities	286	4.44	36.36	50.70
Wholesale and Retail	1,033	16.03	51.89	51.31
Healthcare, Medical Equipment, and Drug	460	7.14	53.70	57.61
Other (excluding Financial)	1,015	15.75	50.34	56.35
Total	6,444	100	49.30	54.35

Auditor CCO Regressions

	Logit	Logit	XT L. Dep.	RE Logit	C Logit
TANGIBILITY	-0.689	-0.467	-0.218	-1.342	-1.838
	(4.03)***	(2.32)**	(2.21)**	(4.61)***	(2.57)**
lnSYN_SIZE	0.212	0.207	0.035	0.305	0.271
	(4.73)***	(4.60)***	(3.24)***	(4.46)***	(3.47)***
MATURITY	0.009	0.009	0.000	0.009	0.002
	(5.73)***	(5.66)***	(1.17)	(4.07)***	(0.92)
DIVIDEND	1.220	0.602	0.018	-1.111	0.923
	(0.47)	(0.23)	(0.03)	(0.28)	(0.16)
ROA	0.402	0.344	0.017	0.908	0.293
	(1.29)	(1.09)	(0.19)	(1.73)*	(0.44)
NUM_COV	0.097	0.099	0.015	0.156	0.113
	(4.19)***	(4.07)***	(2.38)**	(4.27)***	(2.70)***
LEVERAGE	0.363	0.361	-0.015	0.409	-0.068
	(1.79)*	(1.74)*	(0.24)	(1.28)	(0.16)
BOOK_MKT	0.020	0.019	0.008	0.059	0.051
	(1.00)	(0.94)	(1.38)	(1.81)*	(1.30)
SPREAD	0.001	0.001	0.000	0.001	0.001
	(2.60)***	(2.08)**	(1.49)	(2.60)***	(1.49)
lnFACILITY_AMT	-0.048	-0.054	-0.001	-0.024	0.001
	(1.34)	(1.47)	(0.15)	(0.42)	(0.02)
lnMKTVAL	-0.069	-0.065	0.014	-0.061	0.099
	(2.46)**	(2.09)**	(1.33)	(1.34)	(1.50)
REVOLVER	0.021	0.012	-0.029	-0.115	-0.224
	(0.34)	(0.19)	(2.03)**	(1.14)	(1.92)*
CURRENT	0.004	0.008	0.001	0.025	-0.023
	(0.14)	(0.24)	(0.07)	(0.51)	(0.35)
Z_SCORE	0.016	0.016	-0.003	-0.008	-0.026
	(1.18)	(1.12)	(0.80)	(0.35)	(0.84)
SP_RATED	-0.202	-0.223	-0.031	-0.387	-0.253
	(2.23)**	(2.44)**	(1.05)	(2.72)***	(1.30)
SECURED	0.175	0.183	0.031	0.338	0.260
	(2.24)**	(2.31)**	(1.47)	(2.87)***	(1.87)*
Constant	0.249	0.460	0.399	-0.278	
	(0.41)	(0.68)	(2.17)**	(0.29)	
N	6,444	6,444	6,444	6,444	2,065
Industry dummies	No	Yes			
Year dummies	No	Yes			

Auditor Name Clause Regressions

	Logit	Logit	XT L.Dep.	RE Logit	C Logit
TANGIBILITY	-0.395	-0.233	-0.092	-0.921	-0.921
	(2.22)**	(1.12)	(0.92)	(1.31)	(1.31)
lnSYN_SIZE	0.153	0.139	0.022	0.181	0.181
	(3.40)***	(3.00)***	(1.93)*	(2.37)**	(2.37)**
MATURITY	0.005	0.006	0.001	0.005	0.005
	(3.40)***	(3.41)***	(2.10)**	(1.95)*	(1.95)*
DIVIDEND	4.337	4.173	1.781	14.060	14.060
	(1.72)*	(1.62)	(2.38)**	(2.35)**	(2.35)**
ROA	0.278	0.374	0.062	0.414	0.414
	(0.88)	(1.19)	(0.65)	(0.63)	(0.63)
NUM_COV	0.117	0.096	0.026	0.185	0.185
	(4.74)***	(3.69)***	(3.72)***	(4.44)***	(4.44)***
LEVERAGE	0.456	0.262	0.079	0.704	0.704
	(2.21)**	(1.23)	(1.26)	(1.73)*	(1.73)*
BOOK_MKT	-0.034	-0.039	-0.002	-0.014	-0.014
	(1.84)*	(2.05)**	(0.44)	(0.35)	(0.35)
SPREAD	0.000	0.001	0.000	-0.000	-0.000
	(0.76)	(2.73)***	(0.23)	(0.02)	(0.02)
lnFACILITY_AMT	0.083	0.105	-0.018	-0.139	-0.139
	(2.24)**	(2.73)***	(1.80)*	(2.02)**	(2.02)**
lnMKTVAL	0.051	0.104	-0.001	-0.019	-0.019
	(1.79)*	(3.29)***	(0.07)	(0.28)	(0.28)
REVOLVER	-0.109	-0.056	-0.004	-0.032	-0.032
	(1.73)*	(0.88)	(0.26)	(0.28)	(0.28)
CURRENT	-0.053	-0.052	-0.020	-0.137	-0.137
	(1.74)*	(1.69)*	(2.00)**	(2.10)**	(2.10)**
Z_SCORE	-0.002	-0.018	0.002	0.022	0.022
	(0.13)	(1.23)	(0.48)	(0.74)	(0.74)
SP_RATED	0.234	0.213	-0.027	-0.222	-0.222
	(2.54)**	(2.27)**	(0.90)	(1.22)	(1.22)
SECURED	-0.100	-0.090	-0.001	0.012	0.012
	(1.24)	(1.09)	(0.04)	(0.08)	(0.08)
Constant	-2.354	-2.137	0.809		
	(3.79)***	(2.98)***	(4.19)***		
N	6,444	6,444	6,444	2,103	2,103
Industry dummies	No	Yes			
Year dummies	No	Yes			

Auditor Obligation Regressions

	O Logit	RE	FE
TANGIBILITY	-0.423	-0.701	-0.506
	(2.37)**	(2.50)**	(4.82)***
lnSYN_SIZE	0.206	0.113	0.143
	(5.23)***	(3.33)***	(5.14)***
MATURITY	0.009	0.002	0.004
	(6.22)***	(2.01)**	(4.34)***
DIVIDEND	2.380	1.905	1.574
	(1.02)	(0.95)	(1.10)
ROA	0.405	0.084	0.322
	(1.39)	(0.30)	(1.53)
NUM_COV	0.113	0.072	0.080
	(4.97)***	(3.51)***	(5.04)***
LEVERAGE	0.396	0.086	0.303
	(2.04)**	(0.45)	(2.29)**
BOOK_MKT	-0.004	0.019	0.007
	(0.20)	(1.11)	(0.56)
SPREAD	0.001	0.000	0.000
	(2.89)***	(1.04)	(1.77)*
lnFACILITY_AMT	0.012	-0.035	0.003
	(0.36)	(1.14)	(0.13)
lnMKTVAL	-0.004	0.053	0.023
	(0.16)	(1.78)*	(1.29)
REVOLVER	-0.019	-0.069	-0.059
	(0.32)	(1.56)	(1.57)
CURRENT	-0.016	-0.039	-0.022
	(0.56)	(1.32)	(1.10)
Z_SCORE	0.008	-0.007	-0.003
	(0.61)	(0.51)	(0.32)
SP_RATED	-0.068	-0.134	-0.056
	(0.87)	(1.55)	(0.99)
SECURED	0.105	0.076	0.057
	(1.51)	(1.19)	(1.16)
Year/Ind dummies	Yes	NA	NA
N	6,444	6,444	6,444

Fair Value Clause Regressions

	CCO_CLAUSE	NAME_CLAUSE	AUDIT_OBLIGATION	AUDIT_OBLIGATION
FAIR_VAL_CLAUSE	0.391	0.049	0.371	0.153
	(2.30)**	(0.30)	(2.49)**	(1.74)*
TANGIBILITY	-0.455	-0.352	-0.522	-0.609
	(1.07)	(0.84)	(1.33)	(3.10)***
lnSYN_SIZE	0.426	0.177	0.429	0.181
	(3.39)***	(1.50)	(3.97)***	(3.10)***
MATURITY	0.012	0.009	0.012	0.005
	(2.12)**	(1.62)	(2.61)***	(2.32)**
DIVIDEND	-2.806	6.222	-0.129	-0.090
	(0.65)	(1.46)	(0.03)	(0.03)
ROA	0.253	-0.195	0.071	0.115
	(0.33)	(0.27)	(0.09)	(0.31)
NUM_COV	0.040	0.036	0.048	0.006
	(0.58)	(0.54)	(0.75)	(0.19)
LEVERAGE	0.002	0.622	0.274	0.695
	(0.00)	(1.22)	(0.55)	(2.46)**
BOOK_MKT	-0.050	0.008	-0.042	-0.018
	(1.01)	(0.17)	(0.93)	(0.63)
SPREAD	0.001	0.001	0.001	0.001
	(1.12)	(2.11)**	(1.79)*	(3.33)***
lnFACILITY_AMT	-0.160	0.093	-0.088	-0.047
	(1.69)*	(0.94)	(1.05)	(1.00)
lnMKTVAL	-0.046	0.055	0.015	0.032
	(0.62)	(0.74)	(0.23)	(0.81)
REVOLVER	0.125	0.147	0.208	0.028
	(0.67)	(0.80)	(1.28)	(0.31)
CURRENT	0.127	-0.023	0.113	0.028
	(1.73)*	(0.33)	(1.76)*	(0.67)
Z_SCORE	0.027	0.016	0.024	0.038
	(0.63)	(0.39)	(0.70)	(1.65)*
SP_RATED	-0.368	0.443	-0.105	-0.022
	(1.82)*	(2.17)**	(0.55)	(0.18)
SECURED	0.230	-0.474	-0.019	-0.022
	(1.27)	(2.66)***	(0.12)	(0.22)
Constant	1.302	-3.261	2.072	1.912
	(0.79)	(1.87)*	(1.43)	(2.34)**
N	992	992	992	992
Industry dummies	Yes	Yes	Yes	Yes
Year dummies	Yes	Yes	Yes	Yes

Summary and Conclusions

- Auditor clauses are prevalent in private lending agreements

- Systematic variation according to theory indicates that these are an important contracting mechanism
  - Information asymmetries between borrower and lenders
  - Information asymmetries between lenders
  - Difference in suitability of accounting for equity and debt providers

- Further work on robustness of results to endogeneity necessary

- Data opens up many interesting questions
  - What are the consequences of these clauses?
  - Do they complement or substitute for other monitoring mechanisms?