Litigation Environments and Bank Lending: Evidence from the Courts

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She has a reputation of being tough

Research Question

Does legal environment affect banks' lending decisions?

The loan contract terms of borrowers headquartered in these district courts.

The pleading standards of U.S. federal district courts (USDC) on securities class action lawsuits

Why Does Court Leniency Matter?

- In the U.S., the private securities lawsuits pursuant to the SEC 10b-5 anti-fraud provision play a unique **monitoring role**.
  - Detection mechanisms on financial frauds
  - Compensating victims
  - ***Ex ante*** **deterrence effects on financial misreporting**
- In practice, multiple 10b-5 claims are consolidated and heard by the federal district court where the defendant firm is **headquartered**.
- For firms headquartered in jurisdictions with lenient courts, the expected penalty is lower ➔ higher incentive to engage in misreporting.

Why Should Lenders Care?

- Banks are heavy users of financial reports
- Most of the loan contract terms, e.g., financial covenants, rely on specific accounting items.
  - Ball, Li, and Shivakumar (2015); Demerjian, Donovan, and Larson (2016)
- Empirical evidence on banks' (ex post) reaction to firms' financial misreporting
  - Graham, Li and Qiu (2008); Deng, Willis and Xu (2014)

Motivations

- It is important to understand the interactions between different governance mechanisms.

- Extensive literature has shown that **cross-country** legal environments affect financial development at the <u>macro-level</u>
  - La Porta et. al. (1997; 1998) ; Djankov et al. (2008)

- There is also growing evidence documenting how **cross-country** legal environments shape financial contracting at the <u>firm level</u>.
  - Qian and Strahan (2007); Bae and Goyal (2009)

- The Void: **Within-country and firm level direct evidence**

The challenges

- Within-country variations in legal environment are hard to obtain

- Tough to find truly exogenous factors free of endogenous selection issues.

Litigation Process

- 94 district courts (5 outside US) throughout the country with exclusive jurisdiction to hear 10b-5 lawsuits.
- Multiple filings are consolidated and heard by the defendant firm's headquartering district court.
- Dismissal decision determined by (randomly assigned) individual judges,
- Judges interpret the same "laws on paper" with discretion, causing variations in pleading standards both across courts and over time.
- Almost free from firm's selection
  - unlikely firm moves based on leniency of court over time
- By linking firms' headquarters to their district court jurisdictions with time varying pleading standards on securities lawsuits, we can ensure that the court leniency is an exogenous factor from the lenders' perspective.

Measuring District Court Leniency

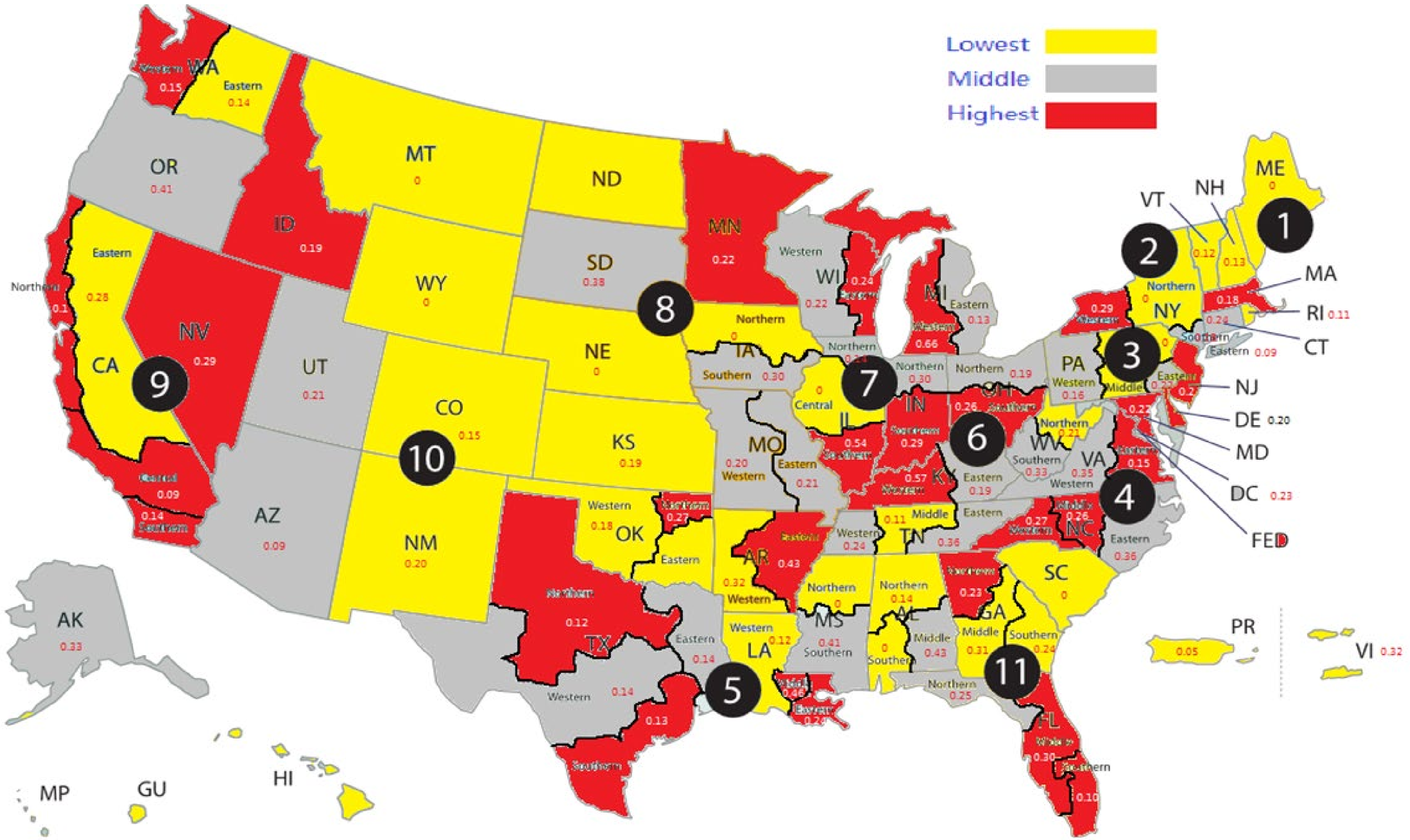
- **Court dismissal rate**
  - The no. of cases dismissed within five years prior to a borrowing firm's fiscal year end scaled by that of cases filed in the court during the same period.
- It is *inversely* related to firms' litigation risk headquartered in the district.

- **Examples of average dismissal rate**:
  - USDC of Louisiana (Eastern) 91%
  - USDC of Louisiana (Middle) 18%

  ➔ a signal to firms headquartered in Louisiana (Eastern) that, even if sued, chance of shareholder recovery is low

  ➔ affecting reporting incentives

Dismissal Rate by Federal District Court



Reporting Disincentive Hypothesis

- Banks in the lenient jurisdictions are more likely to have concerns on the quality of financial reports, which increase the risk of lending and can prompt banks to charge higher interest rates, shorten maturities, and reduce loan amounts.

- The effect of financial reporting disincentive on bank’s covenant usage is not straightforward

Hypotheses on Covenant Usage

Two Competing Hypotheses:

- H1a: Lower reporting incentive prompt banks to strengthen monitoring, leading to *more usage* of covenants *ex ante* (Rajan and Winton, 1995)

- H1b: Lower reporting incentive means that firms can manipulate accounting reports to avoid covenant violations, leading to *less usage* of covenants *ex ante*.

Preview of Results

- Firms headquartered in more lenient jurisdictions:
  - pay significantly higher interest
  - borrow with significantly shorter maturities
  - Insignificant impact on covenants usage

- The effect is more pronounced when banks are uncertain about borrowers' quality
  - i.e. loans with performance pricing provisions

- For firms headquartered in districts with more securities lawsuits, banks are more likely to arrange institutional term loans, which subsequently can be sold in the secondary market or securitized.

Literature Review

- Increasing work in economics using *court* data
  - Kling 2006 AER; Galasso and Schankerman 2015 QJE; Dobbie et al. 2017 RES
- Law and finance literature at *firm level*
  - Lerner and Schoar 2005 QJE; Qian and Strahan 2007 JF; Liberti and Mian 2010 JF
- Accounting literature on the usage of accounting information in debt contracting
  - Bharath et al. 2008 TAR; Ball et al. 2015 JAR; Demerjian et al. 2016 JAR

- Ours is the first to use district court dismissal rate to capture *ex ante* litigation environment
- We provide the first evidence that lenders are sensitive to district pleading standards.

Sample and Data Source

- 15,620 U.S. syndicated loans from 2001 to 2013.
- Court dismissal rate from 2000 to 2012
  - post-PSLRA period

Source:

- Bank loan data: DealScan database of Thomson Reuters LPC
- Court and lawsuit data: Securities Class Action Services (SCAS) database from RiskMetrics' Institutional Shareholder Services (ISS)
- All financial statement variables: Compustat
- Stock return data: CRSP

Sample Distribution by Deal Year

Deal Year	Freq.	Percent
Panel A: Deal year		
2001	1,260	8.07
2002	1,506	9.64
2003	1,393	8.92
2004	1,555	9.96
2005	1,485	9.51
2006	1,376	8.81
2007	1,458	9.33
2008	747	4.78
2009	507	3.25
2010	843	5.4
2011	1,313	8.41
2012	1,056	6.76
2013	1,121	7.18
Total	15,620	100

Sample Distribution by Credit Rating

Credit Rating	Freq.	Percent
A	512	3.28
A+	271	1.73
A-	464	2.97
AA	69	0.44
AA+	19	0.12
AA-	131	0.84
AAA	41	0.26
B	581	3.72
B+	876	5.61
B-	238	1.52
BB	851	5.45
BB+	549	3.51
BB-	992	6.35
BBB	1,077	6.9
BBB+	635	4.07
BBB-	794	5.08
CC	31	0.2
CCC	33	0.21
CCC+	92	0.59
CCC-	5	0.03
D	76	0.49
SD	1	0.01
Not rated	7,282	46.62
Total	15,620	100

Summary Statistics: Loan Terms

	Mean	Median	Std. Dev.	Min	Max
Interest spread (bps)	217.94	200	153.90	-95	1655
Facility amount (mil)	412.21	195	762.40	0.2	24000
Maturity (month)	47.40	56	21.19	1	240
Covenants index	2.10	1	2.35	0	8
Number of sweeps	0.86	0	1.44	0	4
No. of financial covenants	1.44	1	1.38	0	6
=1 if secured	0.34	0	0.48	0	1
=1 if having dividend restriction	0.50	0	0.50	0	1
=1 if having net worth covenant	0.17	0	0.38	0	1
=1 if having performance pricing	0.45	0	0.50	0	1
=1 if line of credit	0.11	0	0.31	0	1
=1 if revolver	0.60	1	0.49	0	1
=1 if traditional term loan	0.17	0	0.38	0	1
=1 if institutional loan	0.12	0	0.32	0	1

Summary Statistics: Explanatory Variables

	Mean	Median	Std. Dev.	Min	Max
Court dismissal rate	0.37	0.33	0.35	0.00	3.00
Lawsuit filing rate	0.11	0.06	0.19	0.00	8.50
Firm size	7.31	7.27	1.85	-0.55	14.21
Tobin's q	1.65	1.35	0.99	0.39	13.78
Cash holdings	9.41	4.73	12.48	0.00	99.93
Current ratio	1.83	1.51	1.51	0.01	51.50
ROA	11.97	11.64	12.03	-296	119.41
Tangible Assets	40.04	38.82	26.23	0.00	98.72
Leverage	63.14	61.01	29.60	0.02	898.44
=1 if pay dividends	0.54	1.00	0.50	0.00	1.00
Inverse of interest coverage	7.69	12.56	473.94	-27703	5527.43
Capital expenditure	5.18	3.14	7.25	-0.29	201.25
R&D scaled by sales	0.07	0.00	5.46	0.00	679.87
=1 if R&D missing	0.54	1.00	0.50	0.00	1.00

Univariate Analysis of Court Leniency

	High dismissal	Low dismissal			
	Mean	Mean	Difference	t-test/z-test	
Interest rate (bps)	227.45	208.45	19.00	7.73	***
Facility amount (mil)	452.88	371.59	81.30	6.67	***
Maturity (month)	49.47	45.31	4.16	12.25	***
Covenant index	1.96	2.24	-0.27	-7.27	***
Number of sweeps	0.82	0.89	-0.07	-3.18	***
No. of financial covenants	1.34	1.54	-0.19	-8.82	***
=1 if secured	0.34	0.35	-0.01	-1.74	*
=1 if having dividend restriction	0.47	0.53	-0.06	-7.09	***
=1 if having net worth covenants	0.14	0.20	-0.06	-9.99	***
=1 if having performance pricing	0.43	0.47	-0.04	-4.51	***
No. of observations	7805	7815			

Effects on Loan Interest Spreads

Dependent variable: Interest spreads (BPS)					
Court dismissal rate	14.81***	17.39***	14.22***	13.56***	14.19***
	(3.22)	(3.84)	(3.29)	(3.23)	(3.14)
Lawsuit filing rate	-1.50	4.50	8.34	8.53	10.65
	(-0.16)	(0.56)	(1.10)	(1.23)	(0.73)
Observations	15,620	12,357	12,357	12,201	12,201
R-squared	0.28	0.39	0.42	0.44	0.45
Other controls	No	Yes	Yes	Yes	Yes
Firm Size, Time F.E. & Loan type F.E.	Yes	Yes	Yes	Yes	Yes
Credit rating F.E.	No	No	Yes	Yes	Yes
Court F.E.	No	No	No	No	**Yes**

Effects on Loan Maturity

Dependent Variable: The maturity of loan facilities in months					
Court dismissal rate	-1.23**	-1.30**	-1.37**	-1.38**	-1.18**
	[-2.36]	[-2.34]	[-2.50]	[-2.53]	[-2.00]
Lawsuit filing rate	-2.49**	-1.46**	-1.37*	-1.42*	-0.81
	[-2.34]	[-1.99]	[-1.86]	[-1.89]	[-0.52]
Observations	15,400	12,201	12,201	12,201	12,201
R-squared	0.46	0.49	0.50	0.50	0.51
Other Controls	No	Yes	Yes	Yes	Yes
Firm Size, Time F.E. & Loan type F.E.	Yes	Yes	Yes	Yes	Yes
Credit rating F.E.	No	No	Yes	Yes	Yes
Court F.E.	No	No	No	No	**Yes**

Net Worth Covenants

Dependent variable	=1 if the loan deal has net worth covenants			
	(1)	(2)	(3)	(4)
	Coefficient	Marginal effect	Coefficient	Marginal effect
Court dismissal rate	-0.135*	-0.021*	-0.136	-0.021
	(-1.932)	(-1.912)	(-1.602)	(-1.573)
Lawsuit filing rate	0.011	0.002	0.439	0.069
	(0.086)	(0.086)	(1.288)	(1.287)
Observations	13,074		12,915	
Constant and Other Controls	Yes		Yes	
Time F.E. & Loan type F.E.	Yes		Yes	
Court F.E.	No		Yes	

Other Covenants

	(1)	(2)	(3)	(4)
Dependent variables:	Performance pricing	Secured	Covenants index	Financial Covenants
Court dismissal rate	0.002	0.040	-0.012	-0.004
	(0.043)	(0.707)	(-0.266)	(-0.097)
Lawsuit filing rate	-0.139	0.042	0.217	0.053
	(-0.714)	(0.119)	(1.058)	(0.324)
Observations	13,060	13,018	13,074	13,074
Constant and Other Controls	Yes	Yes	Yes	Yes
Time F.E. & Loan type F.E.	Yes	Yes	Yes	Yes
Court F.E.	Yes	Yes	Yes	Yes

Loans by Performance Pricing Provision

	Dependent variable: Interest Spreads (BPS)	
VARIABLES	Performance pricing	No Performance pricing
Court dismissal rate	23.69***	7.36
	(5.05)	(1.06)
Lawsuit filing rate	-18.81	81.50***
	(-1.42)	(2.80)
Observations	5,710	6,491
R-squared	0.48	0.43
Constant & Other Controls	Yes	Yes
Time F.E. & Loan type F.E.	Yes	Yes
Credit rating F.E. & Court F.E.	Yes	Yes

Loan Type Decisions

	(1)	(2)	(3)	(4)	(5)	(6)
	Institution vs revolver	Marginal effects	Tradition vs revolver	Marginal effects	Tradition vs Institution	Marginal effects
Court dismissal rate	0.060	0.011	0.010	0.003	-0.084	-0.027
	(1.020)	(1.022)	(0.204)	(0.204)	(-0.862)	(-0.865)
Lawsuit filing rate	0.784**	0.149**	-0.026	-0.007	-1.042**	-0.341**
	(2.378)	(2.388)	(-0.097)	(-0.097)	(-2.372)	(-2.275)
Observations	9,344	9,344	10,106	10,106	3,826	3,826
Constant	Yes		Yes		Yes	
Other controls	Yes		Yes		Yes	
Time F.E.	Yes		Yes		Yes	
Court F.E.	Yes		Yes		Yes	

Conclusions and Contributions

- We provide rare, firm level evidence that district legal environment affects financial contracting in private debt.
- Our court-based measure bypasses drawbacks associated with omitted country-level idiosyncrasies in cross-country studies.
- Evidence is consistent with "reporting disincentive hypothesis" that when other monitoring mechanism on firms' financial reporting incentive is weaker, banks *ex ante* use **pricing terms** and **risk-shifting strategies** to overcome information problems.
- Results confirmed the value of private securities lawsuits, a mechanism designed for shareholders, to have preemptive effects, which in turn affect lenders' lending decisions.

Thank you!