

Creditor Rights and Tunneling- Evidence from India's Bankruptcy Reform

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Introduction

- **Tunneling:** The act of expropriating money from one firm to another firm or individual.
 - A variant of the agency problem: minority shareholders rely on larger shareholders to make decisions.
 - Motivation: private gains at the expense of minority shareholders.
 - Preceded major scandals such as Satyam Computers, ILFS, DHFL, among others.
 - Costly even when there is no scandal- minority shareholders lose out (lower returns).
- Large academic literature documents tunneling.
 - For India: Bertrand et al. (2002), Chakraborty et. al (2020).

Research question: Did India's Insolvency and Bankruptcy Code (IBC) of 2016 indirectly benefit minority shareholders by reducing tunneling?

Contribution and Strategy

Key Contribution

- Pin down improved creditor rights as the channel for tunneling reduction

Strategy:

- Use financial Related Party Transactions (RPTs) among group firms to capture tunneling.
- Evaluate impact on financial RPT outflows.
- Employ a triple-difference strategy to establish the causal effect of IBC on tunneling:
 - in Zombie firms, relative to 'distressed' firms,
 - 'post' IBC (2016) relative to pre,
 - in states with above median ex-ante court 'congestion' relative to others.

Preview of Results

- IBC resulted in a fall in financial RPT outflows
 - Driven by loan and investment outflows
 - No impact on outflows from sale of assets
 - No impact on operational RPTs
- Some evidence that impact wanes over time
 - Possible driver: bankruptcy courts get clogged, negating creditor rights improvements from IBC
- Bank-driven disciplining as opposed to shareholder-driven disciplining
 - Bank credit falls post IBC (consistent with Kulkarni et al.) ...
 - ... but no impact on directors' outcomes (remuneration, churn etc)
 - ... and no impact on performance variables

Existing Literature

- Bertrand, Mehta & Mullainathan (BMM) (QJE 2002)
- Siegel and Choudhury (RFS 2012): Critique BMM methodology and offer an alternative explanation for their results
- Atanesov, Black & Ciccotello (2011): Examine how a broad set of rules, including corporate, securities, accounting, tax, and creditor protection rules, impact various forms of tunneling
- Li (2018): Provides evidence for shareholder voting rights reducing 'material' RPTs
- Chakraborty, Kallapur, Mahapatro and Tantri (2020): Attribute increase in outsider equity financing post IBC to reduction in tunneling
- Kashyap, Mahapatro, and Tantri (2021): Interpret indirect evergreening as a way to prop ailing firms

Institutional Details

Insolvency and Bankruptcy Code (IBC), 2016

IBC:

- Comprehensive overhaul of insolvency-related laws, passed on 28 May, 2016.
- Creditor friendly compared to previous bankruptcy laws, which were more management friendly.
- Under companies act 2013, new courts called NCLTs were established for corporate cases of debt recovery under IBC.
- This reduced pressure on the overburdened Debt Recovery Tribunals (DRTs) which dealt with individuals and companies.

Channels: IBC and Tunneling

IBC acts as a credible threat against corporate misconduct, thereby self-disciplining promoters:

- Promoter very likely to lose control in case of default.
- Enables claw back of value lost on account of undesirable transactions with related parties in the preceding two years.
- Increased personal liability - promoter prevented from bidding for assets of other companies under insolvency procedure.
- Besides, liquidator can look at transactions up to two years prior, increases chances of being caught.

Channels: IBC and Tunneling

IBC lowers need to 'evergreen' loans by improving debt recovery:

- Traditional resolution instruments generally led to further extension of loans under new terms with same management.
- Under IBC, the promoters are not permitted to participate unless they can pay off in full within a pre-specified time.
- Aim is to maximise the value of debtor assets by reducing time taken to resolve insolvency.

IBC disincentivises tunneling, even though it does not directly target it.

Related parties

- **Definition** (Companies Act 2013): director or a key managerial person, or their relatives, or a private company in which the partner, director/manager or their relatives are partners.
- **Transactions:** sale or purchase, supply of any material, goods, or capital; sale/purchase/ lease of any property, loans, or appointment of the party to any office in the company.
- **Concerns:** terms of transactions may be unfavourable to minority shareholders

Prowess categories:

- Holding Company
- Ultimate Holding Company
- Intermediate Holding Company
- Subsidiary
- Fellow Subsidiary Company
- Associate, Joint Venture
- Parties where control exists
- Key Personnel
- Relatives of Key Personnel
- Enterprises over which KMP have control or significant influence
- Individuals having significant influence over the company
- Promoters, Shareholders
- Others

Methodology, Data, and Summary Statistics

Triple Difference Methodology

- Exploit ex-ante heterogeneity in financial distress to study impact of IBC on RPT outflows among group firms.
- Focus on firms classified as Zombies in pre-period that are likely to be most exposed to Bankruptcy proceedings.
- Compare them to control group of financially distressed firms.
- However, a concern is that Zombies might be inherently different to distressed firms.
- Bring in a third difference: compare the relative change in RPT outflows among Zombies in states with DRTs that were more congested.

Estimation model

$$\log(y_{it}) = \beta_1 \text{Zombie}_i \times \text{Post}_t + \beta_2 \text{Zombie}_i \times \text{Post}_t \times \text{Congested}_d \\ + \delta X_{it} + \gamma_f + \gamma_s \times \gamma_t + \gamma_d \times \gamma_t + \epsilon_{it}$$

- y_{it} : Financial RPTs, defined at firm-year level
- Zombie_i : four-point (weak ICR, non-AAA-rated, positive credit growth, low credit cost) based zombie indicator
- Post_t indicates years 2017-19
- X_{it} : firm-year controls
- The coefficients γ_j , $j \in \{f = \text{firm}, s = \text{state}, t = \text{time}, d = \text{industry}\}$ indicate fixed effects
- The DDD coefficient is β_2 and our hypothesis is that it is less than zero

Data Sources

- Annual data on firm profits, assets, leverage, ownership, and related party transactions from Prowess.
- States' strength of legal infrastructure:
 - Obstacle index: Enterprise Survey, World Bank (2014)
 - DRT index: Indiatat

Data Cleaning

- Obtain data on related party transactions from CMIE Prowess
 - Loan outflows: RPT lending and RPT guarantees provided during year
 - Asset outflows: cash outflows from purchase of fixed assets
 - Investment outflows: cash outflows from purchase of financial investment
- Use years 2014-2019
- Drop central and state government enterprises, and private foreign firms
- Address regulatory non-compliance on RPT disclosure
 - Replace missing RPT subcomponent values with 0 only if that firm has reported other RPT data in that year

Clause49

Summary Statistics (Continued)

Table: Summary Statistics

Variable	Mean	Std. Dev.	Min.	Max.	N
Loan RPT > 0	0.233	0.422	0	1	12,447
Asset RPT > 0	0.12	0.325	0	1	12,447
Investment RPT > 0	0.098	0.298	0	1	12,447
<i>As a Share of Financial RPTs</i>					
Share, Loan RPTs	0.582	0.465	0	1	4,233
Share, Asset RPTs	0.241	0.416	0	1	4,233
Share, Investment RPTs	0.177	0.352	0	1	4,233
<i>As a Share of Total Assets</i>					
Share, Loan RPTs	1.175	69.969	0	5843.5	12,447
Share, Asset RPTs	0.006	0.069	0	4.323	12,447
Share, Investment RPTs	0.029	1.36	0	133.727	12,447

Distribution of RPT components

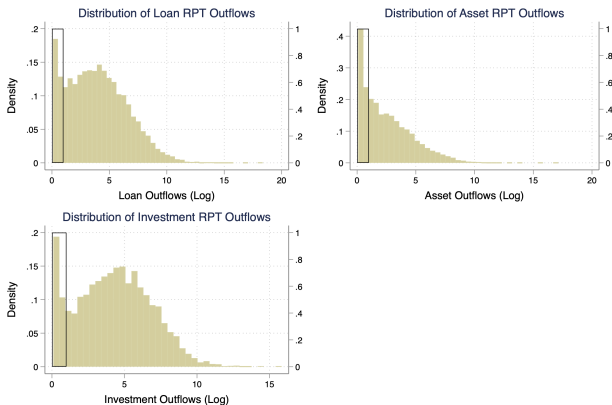


Figure: Distribution - Components of Financial RPT

Results

Baseline Results: Financial RPTs

Table: Results - Financial RPT outflows and IBC

	(1) DDD	(2) Controls	(3) FE	(4) Baseline	(5) Year
Zombie=1 × Post=1	0.27 (0.41)	0.25 (0.46)	0.53 (0.45)	0.56 (0.44)	
Zombie=1 × Post=1 × Congested=1	-1.36*** (0.52)	-1.48** (0.60)	-2.10*** (0.58)	-1.89*** (0.62)	
Zombie=1 × year=2014 × Congested=1					-0.87 (0.97)
Zombie=1 × year=2015 × Congested=1					-0.80 (0.78)
Zombie=1 × year=2017 × Congested=1					-2.49*** (0.85)
Zombie=1 × year=2018 × Congested=1					-2.71*** (1.05)
Zombie=1 × year=2019 × Congested=1					-1.83* (0.94)
Observations	4022	2449	2386	2168	2168
R ²	0.012	0.301	0.644	0.721	0.723

Controls include age, age squared, logs of total assets and its square, cash in hand, tangibility and profitability.

FE includes firm fixed effects. Baseline includes industry-year and state-year fixed effects.

Standard errors in parentheses are clustered at the firm level. * p<0.10, ** p<0.05, *** p<0.01

Baseline Results: Decomposing RPTs

Table: Results - Decomposing RPTs

	(1)	(2)	(3)	(4)
	Loans	Assets	Investments	Operating RPTs
Zombie=1 × Post=1	0.82* (0.42)	0.14 (0.21)	0.18 (0.26)	0.05 (0.36)
Zombie=1 × Post=1 × Congested=1	-1.72*** (0.56)	-0.44 (0.30)	-0.96** (0.48)	0.38 (0.48)
Observations	2168	2168	2168	2046
R^2	0.711	0.651	0.665	0.859

Controls include age, age squared, logs of total assets and its square, cash in hand, tangibility and profitability.

All estimations include firm, industry-year and state-year fixed effects.

Standard errors in parentheses are clustered at the firm level. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Placebo Regressions

Table: Results - Placebo regressions

	(1) Post=2015	(2) Standalone	(3) Legal Congestion <small>Correlation</small>
Zombie=1 × Post2015=1	-0.38 (0.63)		
Zombie=1 × Post2015=1 × Congested=1	0.33 (0.79)		
Zombie=1 × Post=1		-0.27 (0.20)	-0.52 (0.41)
Zombie=1 × Post=1 × Congested=1		0.12 (0.28)	
Zombie=1 × Post=1 × LegalCongested=1			0.03 (0.65)
Observations	1177	7638	2168
R ²	0.799	0.669	0.718

Controls include age, age squared, logs of total assets and its square, cash in hand, tangibility and profitability. All estimations include firm, industry-year and state-year fixed effects.

Standard errors in parentheses are clustered at the firm level. * p<0.10, ** p<0.05, *** p<0.01

Exploring Channels: Credit

Table: Results - Credit Variables

	(1) Growth Borrowings	(2) Growth Bank Borrowings
Zombie=1 × Post=1	0.00 (0.32)	0.09 (0.26)
Zombie=1 × Post=1 × Congested=1	-0.95* (0.57)	-0.82* (0.46)
Observations	2083	2083
R^2	0.660	0.770

Controls include age, age squared, logs of total assets and its square, cash in hand, tangibility and profitability. All estimations include firm, industry-year and state-year fixed effects.

Standard errors in parentheses are clustered at the firm level. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Exploring Channels: Directors

Table: Results - Director Variables

	(1) Remuneration	(2) New	(3) Exit
Zombie=1 × Post=1	-0.21 (0.68)	-0.55 (0.34)	-1.44*** (0.51)
Zombie=1 × Post=1 × Congested=1	0.42 (0.91)	0.41 (0.47)	0.88 (0.59)
Observations	1998	1998	1181
R^2	0.806	0.474	0.589

Controls include age, age squared, logs of total assets and its square, cash in hand, tangibility and profitability. All estimations include firm, industry-year and state-year fixed effects.

Standard errors in parentheses are clustered at the firm level. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Exploring Channels: Performance

Table: Results - Performance Variables

	(1)	(2)	(3)	(4)
	ROE	ROA	Profits	Dividends
Zombie=1 × Post=1	-26.70 (32.27)	0.01 (0.02)	0.01 (0.02)	0.15 (0.18)
Zombie=1 × Post=1 × Congested=1	35.99 (32.62)	-0.03 (0.02)	-0.03 (0.02)	-0.43* (0.24)
Observations	2168	2168	2168	2168
R^2	0.385	0.859	0.858	0.830

Controls include age, age squared, logs of total assets and its square, cash in hand, tangibility and profitability. All estimations include firm, industry-year and state-year fixed effects.

Standard errors in parentheses are clustered at the firm level. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Conclusions and Future Work

Conclusions

- Show that IBC resulted in fall in financial RPTs
 - Driven by creditor-lead, as opposed to shareholder-lead, disciplining
 - Threat of asset losses may also play a role (i.e., self-disciplining) in addition
- Consistent with literature that shows equity inflows to distressed firms post IBC (shareholders *react* to fall in RPT, not *induce* it)

Future Work

- Is the fall in RPTs driven by firms where non-banks are a part of the group?
- Provide a theory, or connect to existing theories, to explain the results

Appendix

RPT disclosure requirements

- Clause 49 of the SEBI guidelines on Corporate Governance as amended on 29 October 2004 (came into operation on 1 January 2006) made major changes in the definition of independent directors, strengthening the responsibilities of audit committees, improving quality of financial disclosures, including those relating to related party transactions
- Related party transactions: A statement of all transactions with related parties including their basis shall be placed before the Audit Committee for formal approval/ratification. If any transaction is not on an arm's length basis, management shall provide an explanation to the Audit Committee justifying the same. [Return](#)

Variable Definitions

- tangibility:
- ebitdata: Earnings before interest and taxes reported by Prowess
- Cash in hand: log of cash in hand reported by Prowess
- Dividends: log of total dividends paid out reported by Prowess
- Director remuneration: log of total remuneration to directors reported by Prowess
- New: New acting (paid) directors
- Exit: Exit acting (paid) directors
- Profits = Retained profits/Total Assets
- Growth Borrowings = Annual change in total borrowings/Total Assets
- Growth Bank Borrowings = Annual change in bank borrowings/Total Assets

Correlation - DRT and Civil Court Congestion

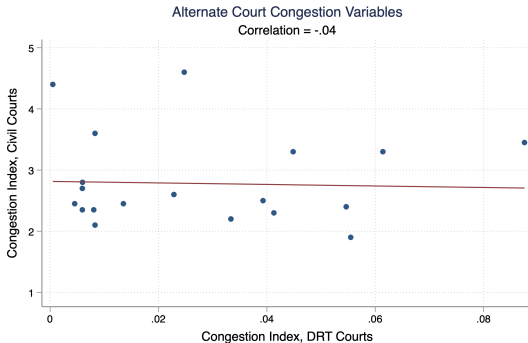


Figure: Alternative Court Congestion Variables

Distress and Dividend Payouts

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