Creditor Information Sharing and Corporate Debt Structure: Evidence from a Quasi-Natural Experiment in India

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Abstract

We contribute to information sharing literature using a relatively clean quasi-natural experiment for identification – the 2005 Credit Information Companies Regulation Act (CICRA) in India. We analyze the impact of the Act on access to credit, cost of credit and debt structure of 39,882 firms from 1997-2013. We specifically focus on small firms and firms which are not affiliated to a business group (non-group firms) and find differential results. We find that better information environment leads to higher access to debt and lower cost of credit in aggregate and even more so for small firms and non-group firms. The Act also lead to lower reliance of firms on secured financing. Small firms and non-group firms could obtain longer maturity debt post the Act.

Keywords: Information Sharing, Small Firms, Corporate Debt, Financial Constraints

1 Introduction

We contribute to information sharing literaure using a relatively clean quasi-natural experiment for identification – the 2005 Credit Information Companies Regulation Act (CICRA) in India. The Act played a vital role in establishing information sharing mechanisms and increased the credit information coverage. We analyze the impact of the Act on access to credit, cost of credit and debt structure of 39,882 firms from 1997-2013. We specifically focus on small firms and firms which are not affiliated to a business group and find differential results.

Theoretically, the role of information sharing mechanisms such as public and private credit bureaus in mitigating information asymmetry has been well established. Pagano and Jappelli (1993) show that credit bureaus improve banks' knowledge of applicants' characteristics and permit more accurate prediction of repayment probability. This allows lenders to target and price their loans better, easing adverse selection problems. Padilla and Pagano (1997) show that credit bureaus reduce the informational rents that banks could otherwise extract from their customers. Padilla and Pagano (2000) show that credit bureaus work as a borrower discipline device.

However, most of the extant empirical literature establishing the role of information sharing mechanisms relies on cross-country studies. Djankov et al. (2007) show that such institutions are associated with higher ratios of private credit to gross domestic product. Jappelli and Pagano (2002) show that strong credit-sharing institutions are positively related to the size of the credit market. Brown et al. (2009) find that credit sharing between lenders is associated with increased and cheaper credit in transition countries in Eastern Europe. Berger et al.

(2005) demonstrate how such institutions increased the quantity of small business loans in the United States, and, more importantly, served to expand credit to riskier, ―marginal borrowers – i.e. firms that, in the absence of credit information sharing institutions would probably not receive credit.

Apart from the cross-country context, the role of specific information sharing information is hardly established. One such study (Behr and Sonnekalb, 2012) utilize the introduction of a public credit registry by the Albanian central bank in January 2008 as a natural experiment to analyze the effect of information sharing between lenders on access to credit, cost of credit and loan performance. Their results suggest that information sharing by means of a credit registry does not affect access to or cost of credit, but improves loan performance. They indicate that information sharing among lenders improves loan performance mainly by disciplining borrowers to repay in their concern about future access to credit.

We conduct a similar study to examine the effect of information sharing mechanisms through a policy change in India, the Credit Information Companies Regulations Act (CICRA) 2005, which required lenders to become a member of at least one credit information company and mandated them to share credit information about the borrowers which could now be accessed by other lenders as well. The Act substantially increased credit information coverage and hence we use the same as a quasi-natural experiment to examine the role of information sharing mechanisms on availability of credit, cost of credit, and corporate debt structure.

Specifically, we find that firms were able to increase their debt post the Act. The increase was channeled more through bank debt as banks are more likely to use credit information in the decision making process than other institutions. We find that long term debt and secured

debt decreased post the Act. This is due to less reliance of firms on loans backed by collateral in a better information environment. Djankov et al. (2007) also find that information sharing and creditor rights can be substitutes as credit mechanisms. As expected, firms' borrowing rates and interest rate spread decreased post the Act in presence of a better information environment and lower information rents due to decrease in information monopoly by individual lenders.

We specifically focus on small firms as they are more financially constrained and informationally opaque than large firms. We expect a better information environment to have a more positive effect on small firms. In line with the above, we find that smaller firms get more access to credit post the Act compared to larger firms. Even though their share of bank financing decreases, they are able to secure more long term debt compared to larger firms. The decrease in borrowing rates and interest rates spreads is also higher for smaller firms indicating that the presence of information sharing mechanisms alleviates the financial constraints of small firms.

We also focus on non-group firms that is firms which are not affiliated to any business group or government entity as these firms lack any internal capital and are more financially constrained. Also during credit decision making, while the credit information of the business group serves as a signal for a firm affiliated to that business group, there is no such signal for non group firms in absence of information sharing mechanisms. Hence, we expect the Act to alleviate financial constraints of non-group firms as well by allowing the lenders to also account for the promoters' and directors' personal credit history while making credit decisions for that firm. In line with the above, we find that non group firms get more access to debt post the Act as compared to group firms. Non group firms are also able to secure

longer term debt, higher secured debt, and lower borrowing rates and interest rate spreads as compared to larger firms post the Act.

Overall, the contribution of our study comes from various aspects. First, it is one of the rare studies in information sharing literature that would examine a natural experiment. Second, we examine the corporate debt structure instead of loan data or country aggregates in other studies. Third, our treatment of small forms and non group firms is unique and helps us better identify the role of information sharing. Hence we believe that this study would contribute to the existing literature in multiple dimensions as mentioned above.

2 The Credit Information Companies Regulation Act (CICRA) 2005

The Credit Information Companies Regulation Act (CICRA) came into existence in 2005 and required all credit institutions to mandatorily become member of at least one credit information company (more commonly known as credit bureau) and share credit information of its borrowers. While the Act came into being in 2005, the rules which governed the Act came into being in 2006. Hence we take period post 2006 as the Post period.

Before this act came into place, the Reserve bank of India tried various ways to improve credit information sharing environment in India. While, a credit bureau (CIBIL; now TransUnion CIBIL) was already existing the depth of credit information was virtually non existent. For example one of the notifications of RBI read *"The Reserve Bank had issued instructions to banks and financial institutions (FIs) vide circulars DBOD No.DL.BC.29 and 70/20.16.002/2002-03 dated October 1, 2002 and February 10, 2003, respectively, to obtain the consent of all their borrowers (and not only defaulters) for pooling of data for*

development of a comprehensive credit information system. However, many banks have not taken effective measures to comply with the instructions in a comprehensive manner, which is a matter of serious concern. The development of an efficient credit information system is considered critical for the development of a sound financial system. Hence, we advise that the Boards of banks/FIs should review the measures put in place by their banks/FIs for furnishing credit information in respect of all borrowers to CIBIL and report compliance to Reserve Bank of India".[1]

However, it was clear that India would not opt for a public credit registry and wanted to give an opportunity to private credit bureaus to develop. Unlike countries where private credit bureaus endogenously flourish due to the requirement of information sharing amongst lenders, India required an enforced mechanism. CICRA served the purpose of being the mechanisms which mandated all credit institutions to share information with at least one credit bureau. This turned out to be effective and reflected in world bank indicators used for credit information coverage as shown in Figure 1.

3 Data and Variables

Our primary database is Prowess, which is compiled and maintained by the Center for Monitoring the Indian Economy (CMIE), a leading private think tank in India. Our sample contains financial information for 39,882 firms across eight years spanning fiscal years (FY) 1997-2013. In India, the FY begins on April 1 and ends on March 31. Total firm-year observations exceed 200,000, although sample size varies because of missing information for some of the variables used in the analysis. As noted, the period with fiscal year (FY) ending 1997-2006 is taken to be pre-CICRA and the period with FY ending 2007-2013 is taken to be

[1] https://rbi.org.in/scripts/NotificationUser.aspx?Mode=0&Id=1711

post-CICRA. Table 1 Panel A shows variable definitions and sources and Panel B shows descriptive statistics.

Our first set of dependent variables are *Total Debt to Assets*, which represents access to credit, and *Bank Debt to Assets* and *Bank Debt to Total Debt*, which represent bank borrowings. Table 1 Panel B indicates that the average value for total debt to assets was 72.5% for all firms in the sample. The bank debt represented 29.4% of total assets and 39.8% of total debt. We also have *Long Term Debt to Total Debt* to represent long term borrowings, and *Secured Debt to Assets* and *Secured Debt to Total Debt* to represent borrowings backed by collateral.

The other set of dependent variable is Borrowing Rate and Interest Rate Spread.. The change in interest rate spreads from the pre to the post period represents a price measure of reduction in information asymmetry and information rents after controlling for other macroeconomic factors in our analysis. Interest rate spread is calculated by deducting Indian Government 10-year bond yield from the effective borrowing rate. We do not have the maturity data for the firms' debt and hence use the 10-year bond rate.

Our main independent variable is the *Post*. To focus specifically on small firms we construct a variable *SmallFirm* based on size terciles. The lowest tercile gets the value 1 for this variable while the highest tercile gets 0. We also focus on the variable *NonGroup* which equals 1 if a firm is not affiliated to any business group or government entity. Approximately 72% of the firms in our sample are non-group firms.

We use *ROA, Interest Coverage, Current Ratio and logSales* as controls for corporate debt structure. These variables represent the observed riskiness of the firms from the perspective of lenders; the higher value of these variables implying less risky firms.

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Figure 1: Time Series of Credit Information Environment in India

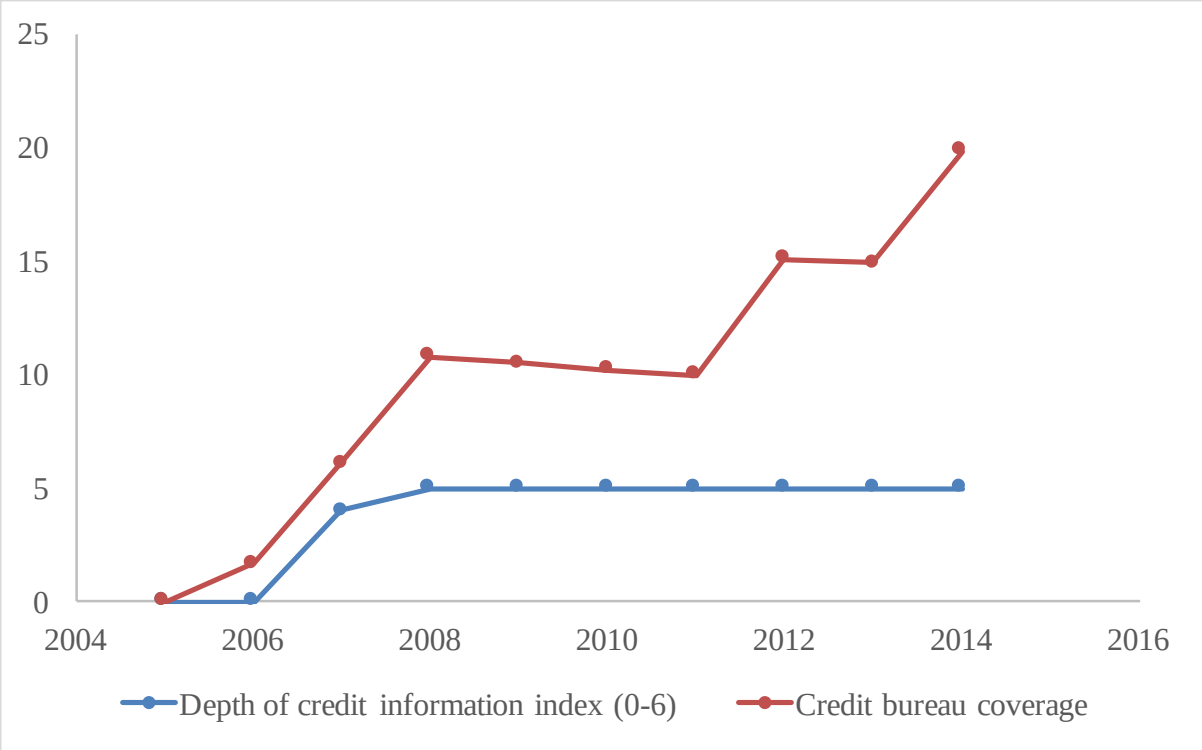

Table 1: Variables and Descriptive Statistics

In Panel A of this table, we provide variable descriptions and the data sources. In Panel B of this table we provide descriptive statistics of the variables which includes mean, standard deviation, and values of the variables at 25th percentile, 50th percentile and 75th percentile for the firms for which the data is available for respective variables. Source: CMIE Prowess (publishes detailed financial information on Indian firms)

PANEL A

Variable	Source
Dependent Variables	
Total Debt to Assets = Total Debt/Total Assets	Derived from CMIE
Bank Debt to Assets = Total Bank Debt/Total Assets	Derived from CMIE
Bank Debt to Total Debt = Total Bank Debt/Total Debt	Derived from CMIE
Borrowing Rate	Derived from CMIE
Interest Rate Spread = Borrowing rate – 10 Year Indian Government Bond Rate	10 Year Indian Government Bond rate: https://rbi.org.in/scripts/FS_PDS.aspx
Long Term Debt to Total Debt = Long Term Debt/Total Debt	Derived from CMIE
Secured Debt to Assets = Secured Debt/Total Assets	Derived from CMIE
Secured Debt to Total Debt = Secured Debt/Total Debt	Derived from CMIE
Independent Variables	
Post	Post = 1 if FY > 2006; 0 otherwise
Small Firm[2]	Small Firm = 1 if a firm is in top 33% based on its measure of Sales; 0 if a firm is in bottom 33%
Non Group[3]	Non Group = 1 if a firm is not affiliated to any business group or government entity; 0 otherwise

[2] Small firms are considered more financially constrained and informationally opaque as compared to large firms

[3] Non group firms are expected to be impacted by the act more because they do not have access to internal capital and the information availability about it's owners' credit history is likely to affect the firm's credit assessment as compared

Control Variables	
ROA = Profit After Tax/Total Assets	Derived from CMIE
Current Ratio	Derived from CMIE
Interest Coverage	Derived from CMIE
LogSales = ln(Sales)	Derived from CMIE

PANEL B

Variable	Mean	Standard Deviation	p25	p50	p75	Number of Firms
Total Debt to Assets	0.725	0.726	0.314	0.622	0.899	37,818
Bank Debt to Assets	0.294	0.189	0.160	0.264	0.390	14,502
BankDebt to Total Debt	0.398	0.193	0.255	0.388	0.529	14,493
Borrowing Rate	8.04%	9.78%	0.20%	7.37%	0.116	32,685
Interest Rate Spread	-0.08%	9.71%	-7.10%	-0.76%	0.034	32,379
Long Term Debt to Total Debt	0.540	0.302	0.305	0.563	0.789	33,714
Secured Debt to Assets	0.302	0.298	0.097	0.241	0.413	25,956
Secured Debt to Total Debt	0.402	0.241	0.210	0.393	0.577	25,761
ROA	-0.007	0.109	-0.019	0.007	0.037	36,937
Interest Coverage	9.173	32.958	0.222	1.692	5.265	26,952
Current Ratio	5.124	12.164	0.876	1.367	3.258	37,807
logSales	3.819	2.907	1.608	4.151	6.080	35,564
Post	0.687					39,882
SmallFirm	0.556					29,866
NonGroup	0.726					39,882

Table 2: Effect of CICRA on Total Debt and Bank Debt

The table reports the results for equation (1) which estimate the regressions: $\boldsymbol{Y_{it}} = \beta_1 * Post + \varphi * X_{it} + \alpha_i + \varepsilon_{it}$. Here Y_{it} is total debt to assets in specifications 1-2, bank debt to assets in specifications 3-4, and bank debt to total debt in specifications 5-6. Specifications 2, 4 and 6 include control variables. The coefficient of interest is β_1. Here *i* indexes firm and *t* indexes time; α_i represents firm fixed effects. t-statistics are reported in parenthesis. ***, **, and * implies significance at 1% level, 5% level and 10% level respectively. The data spans FY 1997-2013.

	Total Debt to Assets		**Bank Debt to Assets**		**Bank Debt to Total Debt**	
	1	2	3	4	5	6
Post	0.083***	0.091***	0.036***	0.040***	0.006***	0.024***
	(34.63)	(38.64)	(29.56)	(30.16)	(4.10)	(13.90)
ROA		-1.111***		-0.373***		0.013
		(-94.31)		(-50.25)		(1.32)
Interest_Coverage		-0.000***		-0.001***		-0.001***
		(-10.04)		(-10.07)		(-9.10)
Current_Ratio		-0.004***		-0.010***		-0.001
		(-27.38)		(-22.29)		(-1.36)
logSales		-0.020***		-0.006***		-0.019***
		(-17.31)		(-8.31)		(-18.95)
Firm Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
R-sqr	0.006	0.097	0.017	0.095	0.000	0.011
N	241020	145934	66441	61167	66340	60769
Firms	37818	25781	14502	13313	14493	13292

Table 3: Effect of CICRA on Long Term Debt and Secured Debt

The table reports the results for equation (1) which estimate the regressions: $\boldsymbol{Y_{it}} = \beta_1 * Post + \varphi * X_{it} + \alpha_i + \varepsilon_{it}$. Here Y_{it} is long term debt to total debt in specifications 1-2, secured debt to assets in specifications 3-4, and secured debt to total debt in specifications 5-6. Specifications 2, 4 and 6 include control variables. The coefficient of interest is β_1. Here *i* indexes firm and *t* indexes time; α_i represents firm fixed effects. t-statistics are reported in parenthesis. ***, **, and * implies significance at 1% level, 5% level and 10% level respectively. The data spans FY 1997-2013.

	Long Term Debt to Total Debt		**Secured Debt to Assets**		**Secured Debt to Total Debt**	
	1	2	3	4	5	6
Post	-0.116***	-0.104***	-0.005***	0.006***	-0.054***	-0.039***
	(-94.55)	(-70.17)	(-4.06)	(4.42)	(-48.60)	(-30.68)
ROA		-0.043***		-0.584***		-0.109***
		(-5.88)		(-85.51)		(-16.97)
Interest_Coverage		-0.001***		-0.000***		-0.001***
		(-27.35)		(-10.42)		(-29.52)
Current_Ratio		0.004***		-0.002***		0.002***
		(40.75)		(-10.77)		(14.66)
logSales		-0.034***		-0.013***		-0.010***
		(-47.77)		(-18.81)		(-15.27)
Firm Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
R-sqr	0.050	0.112	0.000	0.089	0.019	0.037
N	201902	140162	146140	121996	146262	121769
Firms	33714	24941	25956	21968	25761	21898

Table 4: Effect of CICRA on Borrowing Rate and Interest Rate Spread

The table reports the results for equation (1) which estimate the regressions: $\boldsymbol{Y_{it}} = \beta_1 * Post + \varphi * X_{it} + \alpha_i + \varepsilon_{it}$. Here Y_{it} is borrowing rate in specifications 1-2, and interest rate spread in specifications 3-4. Specifications 2 and 4 include control variables. The coefficient of interest is β_1. Here *i* indexes firm and *t* indexes time; α_i represents firm fixed effects. t-statistics are reported in parenthesis. ***, **, and * implies significance at 1% level, 5% level and 10% level respectively. The data spans FY 1997-2013.

	Borrowing Rate		**Interest Rate Spread**	
	1	2	3	4
Post	-0.013***	-0.015***	-0.011***	-0.012***
	(-26.38)	(-23.59)	(-21.58)	(-18.91)
ROA		-0.035***		-0.043***
		(-10.97)		(-13.18)
Interest_Coverage		-0.000***		-0.000***
		(-11.72)		(-9.54)
Current_Ratio		0.000***		0.000***
		(5.22)		(5.81)
logSales		0.006***		0.006***
		(19.82)		(20.18)
Firm Fixed Effects	Yes	Yes	Yes	Yes
R-sqr	0.005	0.010	0.003	0.008
N	180800	124322	175799	119958
Firms	32685	23877	32379	23492

Table 5: Effect of CICRA on Total Debt and Bank Debt of Small Firms

The table reports the results for equations (2) which estimates the regressions:
$Y_{it} = \pi_1 * Post + \pi_2 * SmallFirm + \pi_3 * Post * SmallFirm + \varphi * X_{it} + \alpha_i + \gamma_t + \varepsilon_{it}$
Here Y_{it} is total debt to assets in specifications 1-2, bank debt to assets in specifications 3-4, and bank debt to total debt in specifications 5-6. Specifications 2, 4 and 6 include control variables. The coefficient of interest is π_3. Here i indexes firm and t indexes time; α_i represents firm fixed effects and γ_t represent time fixed effects. t-statistics are reported in parenthesis. ***, **, and * implies significance at 1% level, 5% level and 10% level respectively. The data spans FY 1997-2013.

	Total Debt to Assets		**Bank Debt to Assets**		**Bank Debt to Total Debt**	
	1	2	3	4	5	6
Post * SmallFirm	0.012**	0.056***	0.010	-0.004	-0.052***	-0.054***
	(2.00)	(7.96)	(1.53)	(-0.52)	(-6.70)	(-5.33)
ROA		-1.027***		-0.410***		-0.089***
		(-62.89)		(-38.73)		(-6.51)
Interest_Coverage		-0.001***		-0.001***		-0.001***
		(-12.32)		(-9.29)		(-11.60)
Current_Ratio		-0.004***		-0.009***		-0.001
		(-20.04)		(-16.34)		(-1.58)
logSales		-0.023***		-0.010***		-0.007***
		(-11.30)		(-7.27)		(-3.94)
Firm Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
R-sqr	0.027	0.132	0.066	0.129	0.180	0.193
N	139046	88344	41985	39272	41836	39005
Firms	28683	19889	10446	9670	10446	9634

Table 6: Effect of CICRA on Long Term Debt and Secured Debt of Small Firms

The table reports the results for equations (2) which estimates the regressions:
$Y_{it} = \pi_1 * \text{Post} + \pi_2 * \text{SmallFirm} + \pi_3 * \text{Post} * \text{SmallFirm} + \varphi * X_{it} + \alpha_i + \gamma_t + \varepsilon_{it}$
Here Y_{it} is long term debt to total debt in specifications 1-2, secured debt to assets in specifications 3-4, and secured debt to total debt in specifications 5-6. Specifications 2, 4 and 6 include control variables. The coefficient of interest is π_3. Here i indexes firm and t indexes time; α_i represents firm fixed effects and γ_t represent time fixed effects. t-statistics are reported in parenthesis. ***, **, and * implies significance at 1% level, 5% level and 10% level respectively. The data spans FY 1997-2013.

	Long Term Debt to Total Debt		**Secured Debt to Assets**		**Secured Debt to Total Debt**	
	1	2	3	4	5	6
Post * SmallFirm	0.039***	0.021***	-0.006	0.002	-0.014***	0.009**
	(12.44)	(5.18)	(-1.37)	(0.49)	(-3.89)	(2.00)
ROA		-0.149***		-0.547***		-0.173***
		(-16.28)		(-58.11)		(-18.76)
Interest_Coverage		-0.001***		-0.000***		-0.001***
		(-27.93)		(-12.54)		(-26.01)
Current_Ratio		0.004***		-0.001***		0.003***
		(35.22)		(-5.18)		(16.57)
logSales		-0.004***		-0.006***		0.002*
		(-3.77)		(-4.68)		(1.73)
Firm Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
R-sqr	0.299	0.431	0.019	0.082	0.105	0.145
N	114847	84871	85213	73161	85050	72970
Firms	25156	19174	19315	16483	19177	16413

Table 7: Effect of CICRA on Borrowing Rate and Interest Rate Spread of Small Firms

The table reports the results for equations (2) which estimates the regressions:
$Y_{it} = \pi_1 * Post + \pi_2 * SmallFirm + \pi_3 * Post * SmallFirm + \varphi * X_{it} + \alpha_i + \gamma_t + \varepsilon_{it}$
Here Y_{it} is borrowing rate in specifications 1-2, and interest rate spread in specifications 3-4. Specifications 2 and 4 include control variables. The coefficient of interest is π_3. Here i indexes firm and t indexes time; α_i represents firm fixed effects and γ_t represent time fixed effects. t-statistics are reported in parenthesis. ***, **, and * implies significance at 1% level, 5% level and 10% level respectively. The data spans FY 1997-2013.

	Borrowing Rate		**Interest Rate Spread**	
	1	2	3	4
Post * SmallFirm	-0.013***	-0.009***	-0.012***	-0.010***
	(-8.74)	(-4.37)	(-8.36)	(-4.51)
ROA		-0.029***		-0.026***
		(-6.21)		(-5.38)
Interest_Coverage		-0.000***		-0.000***
		(-7.37)		(-7.57)
Current_Ratio		0.000***		0.000**
		(2.72)		(2.56)
logSales		0.005***		0.004***
		(7.87)		(6.96)
Firm Fixed Effects	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes
R-sqr	0.047	0.047	0.026	0.026
N	104348	76433	101686	74118
Firms	23970	18067	23718	17782

Table 8: Effect of CICRA on Total Debt and Bank Debt of Small Firms

The table reports the results for equations (3) which estimates the regressions:
$Y_{it} = \theta_1 * Post + \theta_2 * SmallFirm + \theta_3 * Post * SmallFirm + \varphi * X_{it} + \alpha_i + \gamma_t + \varepsilon_{it}$
Here Y_{it} is total debt to assets in specifications 1-2, bank debt to assets in specifications 3-4, and bank debt to total debt in specifications 5-6. Specifications 2, 4 and 6 include control variables. The coefficient of interest is θ_3. Here i indexes firm and t indexes time; α_i represents firm fixed effects and γ_t represent time fixed effects. t-statistics are reported in parenthesis. ***, **, and * implies significance at 1% level, 5% level and 10% level respectively. The data spans FY 1997-2013.

	Total Debt to Assets		**Bank Debt to Assets**		**Bank Debt to Total Debt**	
	1	2	3	4	5	6
Post * SmallFirm	0.012**	0.056***	0.010	-0.004	-0.052***	-0.054***
	(2.00)	(7.96)	(1.53)	(-0.52)	(-6.70)	(-5.33)
ROA		-1.027***		-0.410***		-0.089***
		(-62.89)		(-38.73)		(-6.51)
Interest_Coverage		-0.001***		-0.001***		-0.001***
		(-12.32)		(-9.29)		(-11.60)
Current_Ratio		-0.004***		-0.009***		-0.001
		(-20.04)		(-16.34)		(-1.58)
logSales		-0.023***		-0.010***		-0.007***
		(-11.30)		(-7.27)		(-3.94)
Firm Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
R-sqr	0.027	0.132	0.066	0.129	0.180	0.193
N	139046	88344	41985	39272	41836	39005
Firms	28683	19889	10446	9670	10446	9634

Table 9: Effect of CICRA on Long Term Debt and Secured Debt of Small Firms

The table reports the results for equations (3) which estimates the regressions:
$Y_{it} = \theta_1 * Post + \theta_2 * SmallFirm + \theta_3 * Post * SmallFirm + \varphi * X_{it} + \alpha_i + \gamma_t + \varepsilon_{it}$
Here Y_{it} is long term debt to total debt in specifications 1-2, secured debt to assets in specifications 3-4, and secured debt to total debt in specifications 5-6. Specifications 2, 4 and 6 include control variables. The coefficient of interest is θ_3. Here i indexes firm and t indexes time; α_i represents firm fixed effects and γ_t represent time fixed effects. t-statistics are reported in parenthesis. ***, **, and * implies significance at 1% level, 5% level and 10% level respectively. The data spans FY 1997-2013.

	Long Term Debt to Total Debt		**Secured Debt to Assets**		**Secured Debt to Total Debt**	
	1	2	3	4	5	6
Post * SmallFirm	0.039***	0.021***	-0.006	0.002	-0.014***	0.009**
	(12.44)	(5.18)	(-1.37)	(0.49)	(-3.89)	(2.00)
ROA		-0.149***		-0.547***		-0.173***
		(-16.28)		(-58.11)		(-18.76)
Interest_Coverage		-0.001***		-0.000***		-0.001***
		(-27.93)		(-12.54)		(-26.01)
Current_Ratio		0.004***		-0.001***		0.003***
		(35.22)		(-5.18)		(16.57)
logSales		-0.004***		-0.006***		0.002*
		(-3.77)		(-4.68)		(1.73)
Firm Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
R-sqr	0.299	0.431	0.019	0.082	0.105	0.145
N	114847	84871	85213	73161	85050	72970
Firms	25156	19174	19315	16483	19177	16413

Table 10: Effect of CICRA on Borrowing Rate and Interest Rate Spread of Small Firms

The table reports the results for equations (3) which estimates the regressions:
$Y_{it} = \theta_1 * Post + \theta_2 * SmallFirm + \theta_3 * Post * SmallFirm + \varphi * X_{it} + \alpha_i + \gamma_t + \varepsilon_{it}$
Here Y_{it} is borrowing rate in specifications 1-2, and interest rate spread in specifications 3-4. Specifications 2 and 4 include control variables. The coefficient of interest is θ_3. Here i indexes firm and t indexes time; α_i represents firm fixed effects and γ_t represent time fixed effects. t-statistics are reported in parenthesis. ***, **, and * implies significance at 1% level, 5% level and 10% level respectively. The data spans FY 1997-2013.

	Borrowing Rate		**Interest Rate Spread**	
	1	2	3	4
Post * SmallFirm	-0.013***	-0.009***	-0.012***	-0.010***
	(-8.74)	(-4.37)	(-8.36)	(-4.51)
ROA		-0.029***		-0.026***
		(-6.21)		(-5.38)
Interest_Coverage		-0.000***		-0.000***
		(-7.37)		(-7.57)
Current_Ratio		0.000***		0.000**
		(2.72)		(2.56)
logSales		0.005***		0.004***
		(7.87)		(6.96)
Firm Fixed Effects	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes
R-sqr	0.047	0.047	0.026	0.026
N	104348	76433	101686	74118
Firms	23970	18067	23718	17782