The Financing and Growth of Firms in China and India: Evidence from Capital Markets

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Motivation

- China and India have risen as world economic powers

  - China's GDP has grown more than twenty-fold in real terms since 1978

  - India has expanded 6.5 times between 1978 and 2011

  - Even though they both have more than one billion people each

- China's and India's financial systems have also developed rapidly

  - Stock mkt capitalization rose from 4% of GDP in 1992 to 80% in 2010 China

  - From 22% to 96% in India

- Non-bank institutional investors are playing a more central role

Motivation: This paper

- How broad-based is the financing in capital markets?

  - Bond and equity markets

  - Domestic and foreign markets

- Which firms from China and India have used and have benefited from the expansion in capital markets?

- Is the use of capital markets associated with firm performance?

- Implications of the patterns on firm size and growth for the firm size distribution (FSD) across publicly listed firms

- Implications for the role of capital markets

Summary of findings

- The expansion of financial activity has been much more limited than aggregate numbers suggest
  - Few firms use capital market financing
  - Even fewer firms get the bulk of the financing activity
- Firms using capital markets are different than other listed firms
  - Large firms are the ones that use capital markets as a source of financing
  - They grow faster just before and during the year of issue
  - They also increase their capital expenditures and expand the debt maturity
- These differences are observed ex-ante and become more accentuated ex-post the capital raising activity
- FSD shifts more over time for firms that raise capital than for those that do not

Motivation: Related literature

- Positive relation between financial development growth

- Relation between law, finance, and growth literature

  - China and India as counter-examples

- Gibrat's law

  - Firm size and growth are independent

  - FSD is stable over time

- Financial constraints and their effects on firms

Presentation

1. Motivation

2. Data

3. Capital Market Development and Firm Financing

   3.1. Expansion of Capital Markets

   3.2. Use of Capital Markets

4. Firm Dynamics and Use of Capital Markets

   4.1. Which Firms Use Capital Markets?

   4.2. Use of Markets and Firm Dynamics

   4.3. Implications for Firm Size Distribution

5. Conclusions

Presentation

Data

- Data coverage for capital raising activity from SDC Platinum
  - 3,884 firms raising capital in China
  - 6,483 firms raising capital in India
  - 11,156 equity issues from 1991 to 2010
  - 6,929 bond issues from 2000 to 2010
- Balance sheet data for listed firms from Bureau van Dijk Orbis
  - Data coverage from 2003 to 2010
  - We exclude firms that only had an IPO and no other capital raising activity
  - 2,457 firms from China
  - 4,301 firms from India
  - For capital expenditures, TRs' Worldscope database (different coverage)
- We match both datasets
  - 1,915 Chinese firms and 3,427 Indian firms didn't raise capital between 2003-2010

Presentation

Financial markets have developed since 1990

Size of Domestic Financial System
Financial Systems as a % of GDP
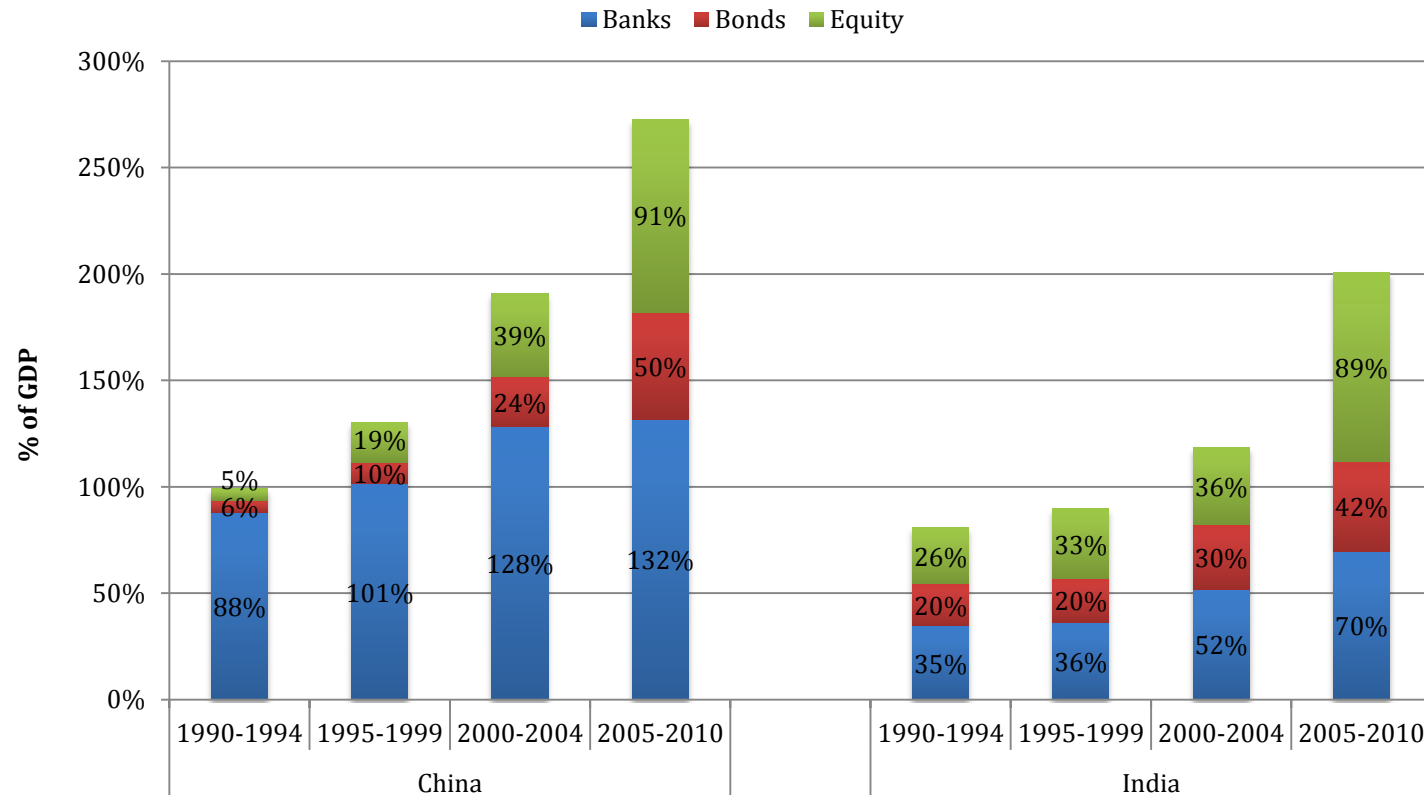
Note: Total claims of the banking system, market capitalization of outstanding bonds, and equity market capitalization as a percentage of GDP. Source: IFS, BIS, and WDI.

Shift away from bank-based model

Size of Domestic Financial Systems
As a % of Total Domestic Financial Systems
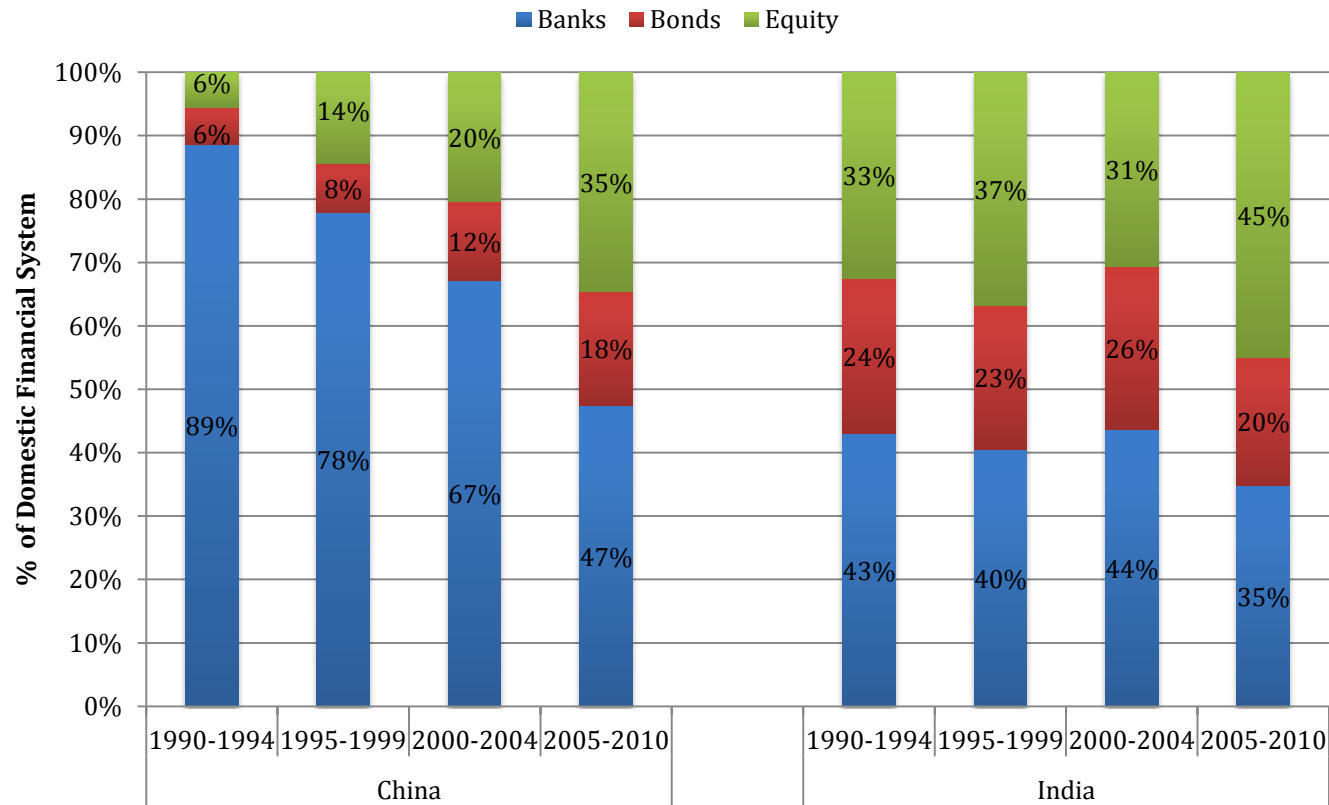
Total claims of the banking system, market capitalization of outstanding bonds, and equity market capitalization as a percentage of the total domestic financial system. Source: IFS, BIS, and WDI.

Equity issuance surged in late 2000s, after decline

Issuance Activity in Equity Markets
Amount raised as a % of GDP

■ Domestic ■ Foreign: Hong Kong ■ Foreign
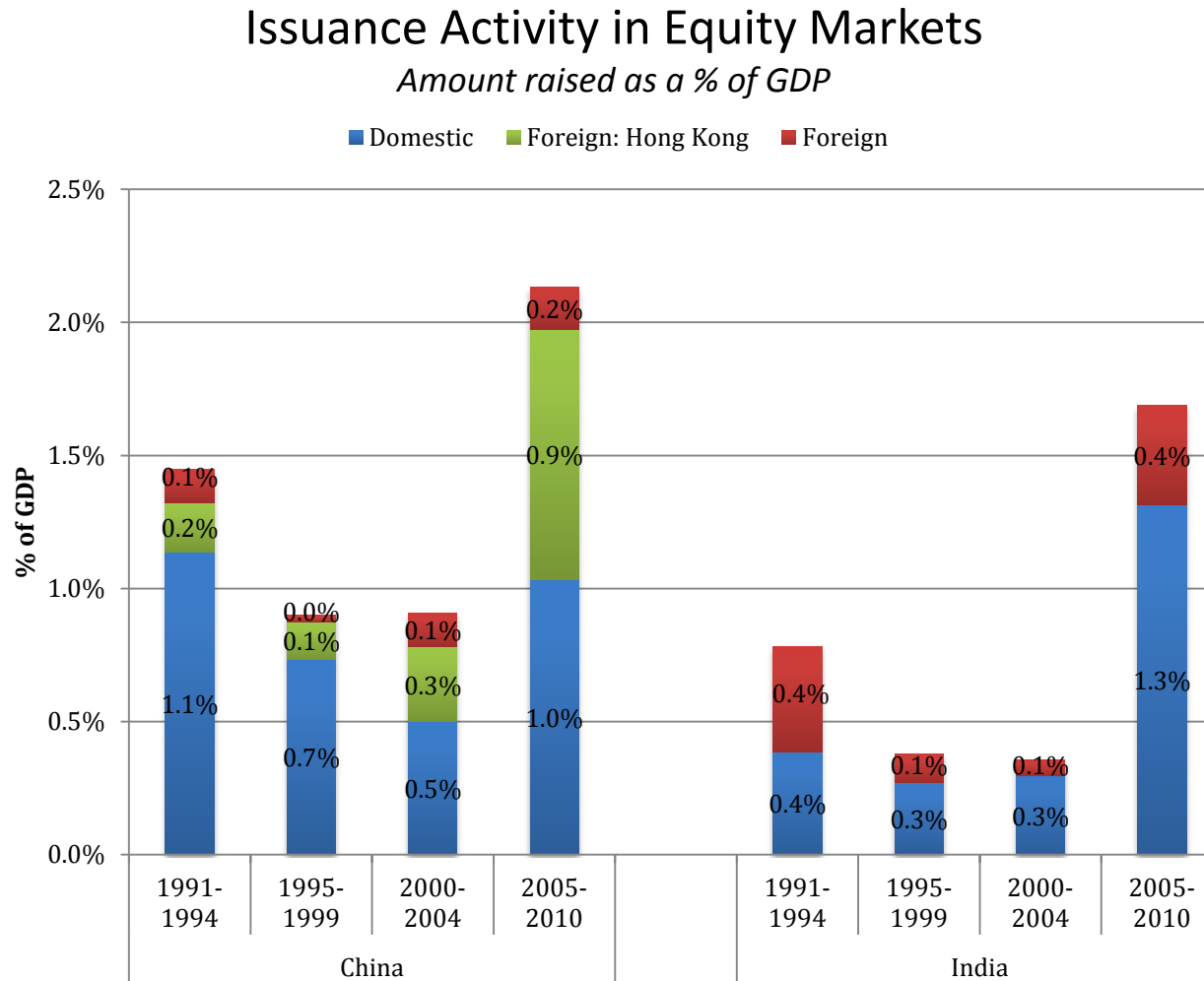
Note: foreign markets for China are split into Hong Kong and others. Sources: SDC Platinum.

Even when considering non-financial firms only …

Issuance Activity in Equity Markets
Amount raised as a % of GDP
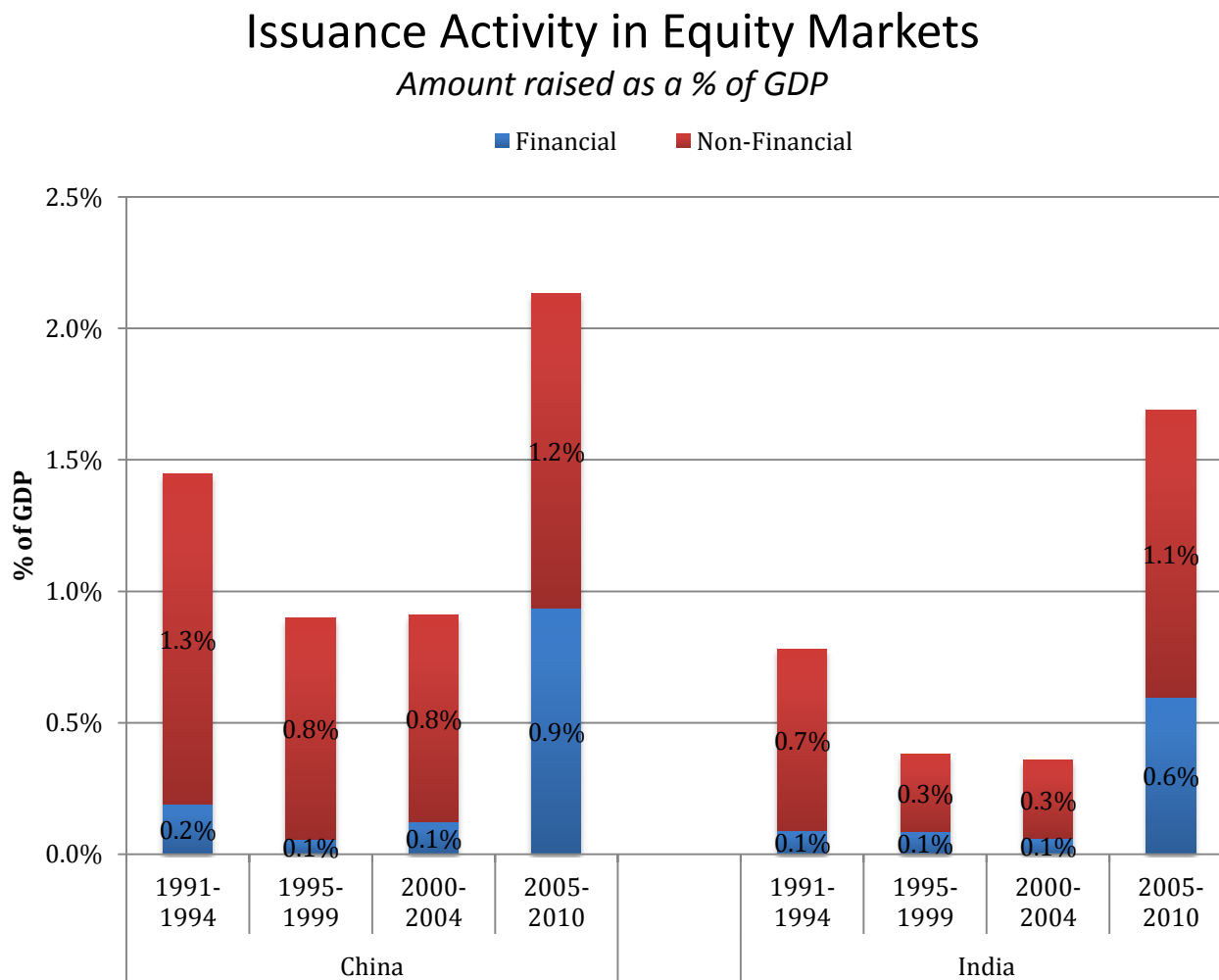
Note: firms are classified as financial according to their 2-digit SIC code. Sources: SDC Platinum.

Listed firms grew in China, but remain few compared to India

Number of Listed Firms in Domestic Equity Markets
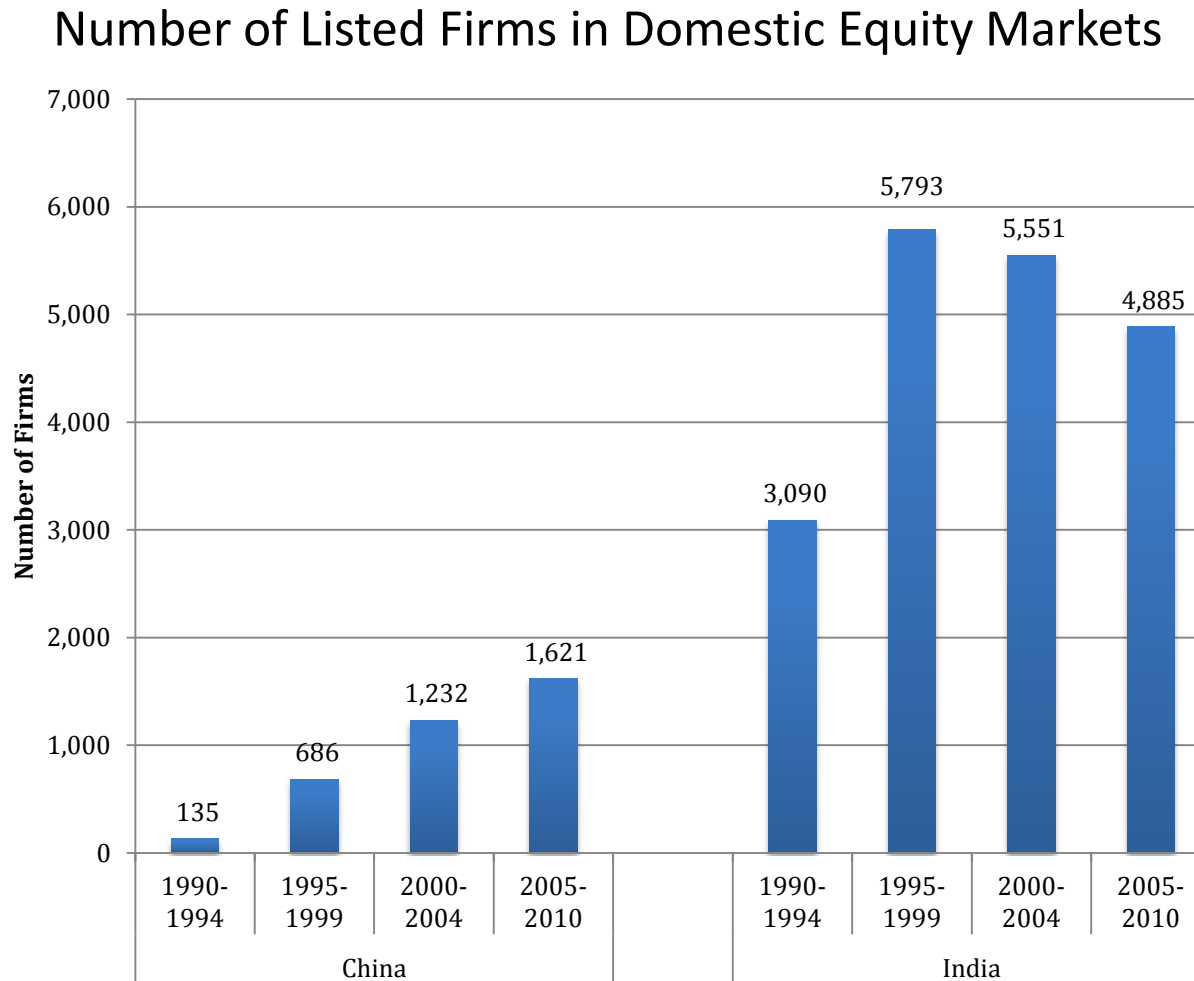
Few firms issue equity each year …

Number of Firms Issuing Equity per Year
in Domestic and Foreign Markets

■ Domestic   ■ Foreign (Incl. Hong Kong)
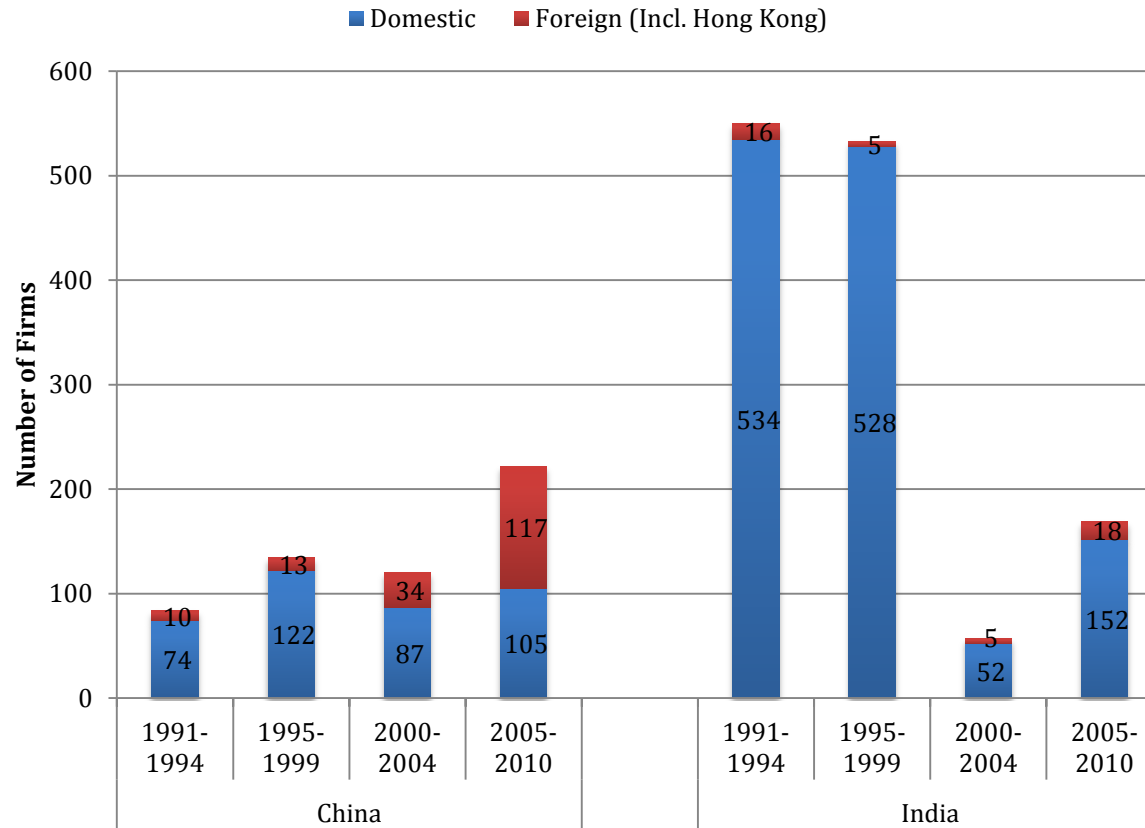
… and even fewer are SEOs

Number of Firms Issuing Equity per Year in Domestic and Foreign Markets

Legend: ■ IPO ■ SEO

Y-axis: Number of Firms (0 to 600)

China:
- 1991-1994: IPO 74, SEO 7
- 1995-1999: IPO 121, SEO 14
- 2000-2004: IPO 109, SEO 12
- 2005-2010: IPO 136, SEO 87

India:
- 1991-1994: IPO 509, SEO 38
- 1995-1999: IPO 511, SEO 21
- 2000-2004: IPO 39, SEO 18
- 2005-2010: IPO 80, SEO 90
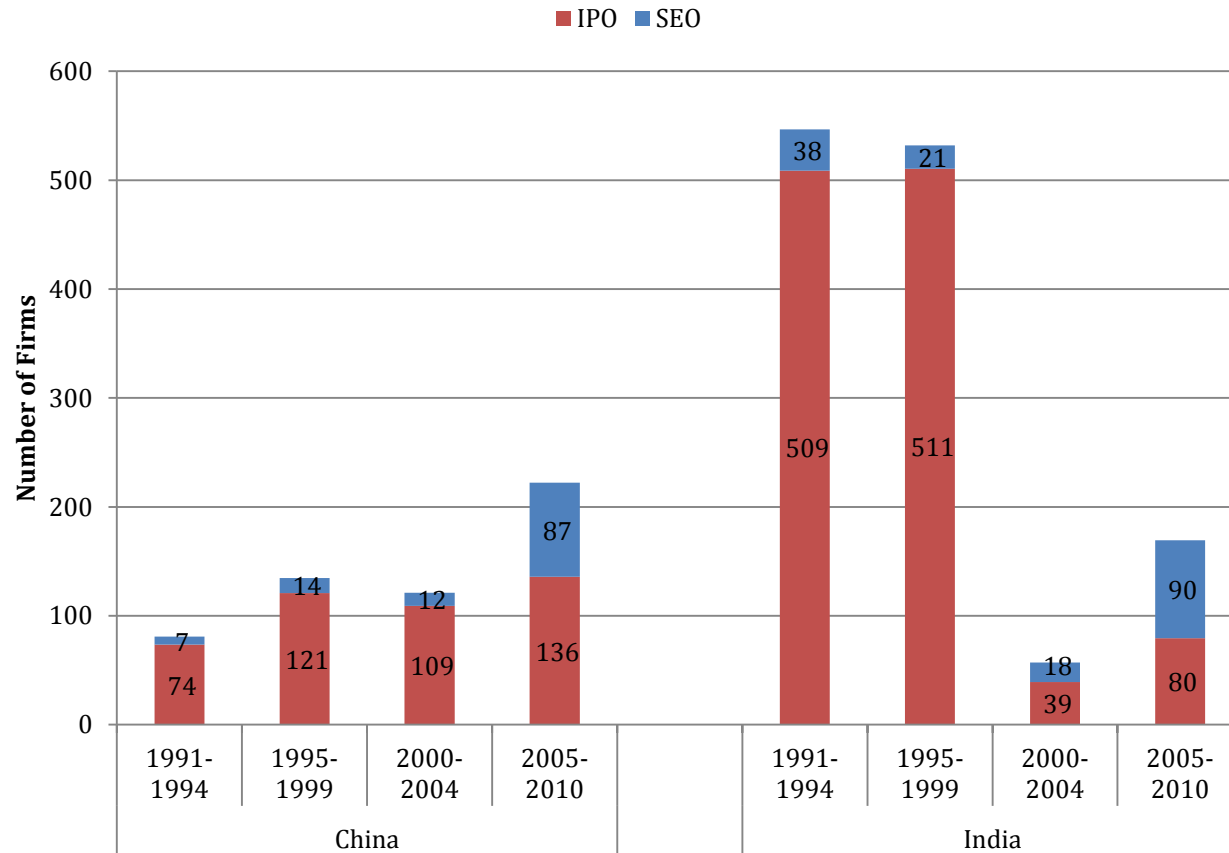
… the top 10 issuing firms capture a big fraction

Concentration in Domestic Equity Markets

*Amount raised by top 10 issuers as a percentage
of total amount raised*
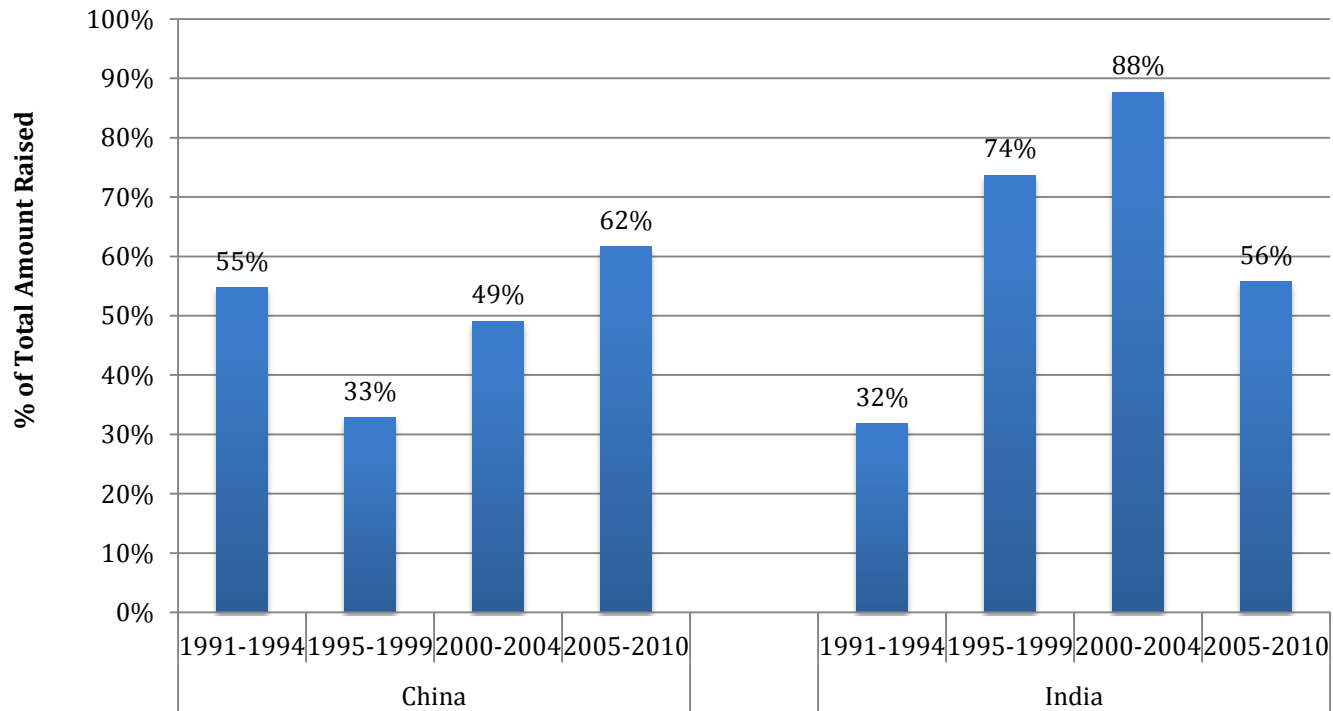
Local bond market issuance activity expanded recently, becoming comparable to equity

Issuance Activity in Bond Markets
Amount raised as a % of GDP

■ Domestic ■ Foreign: Hong Kong ■ Foreign
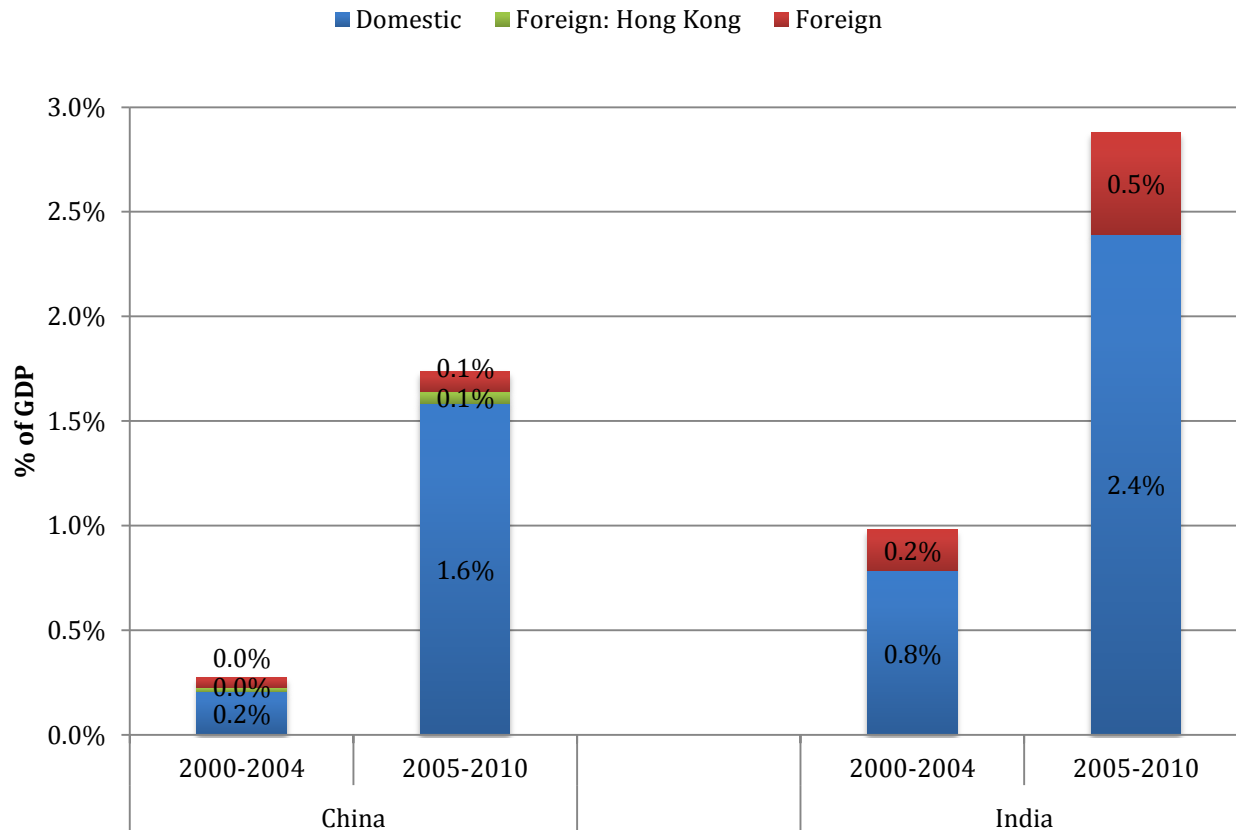
Note: foreign markets for China are split into Hong Kong and Others. Sources: SDC Platinum.

… for financial as well as non-financial firms

Issuance Activity in Bond Markets
Amount raised as a % of GDP

■ Financial   ■ Non-Financial

China
- 2000-2004: Financial 0.1%, Non-Financial 0.2%
- 2005-2010: Financial 0.7%, Non-Financial 1.0%

India
- 2000-2004: Financial 0.6%, Non-Financial 0.3%
- 2005-2010: Financial 2.0%, Non-Financial 0.8%

Note: firms as classified as financial using their 2-digit SIC code. Sources: SDC Platinum.

Number of firms issuing bonds rose considerably

Number of Firms Issuing Bonds per Year
in Domestic and Foreign Markets

■ Domestic   ■ Foreign (Incl. Hong Kong)

Source: SDC Platinum.

… but also concentrated

Concentration in Domestic Bond Markets

*Amount raised by top 10 issuers as a percentage
of total amount raised*

Presentation

Firms that issue differ from those that don't

Firm Characteristics in China

Firm Characteristics	No Issues	Equity Issues		Bond Issues	
Size					
Total Assets	214,271	443,289	***	1,223,531	***
Sales	122,237	255,071	***	505,218	***
Employees	1,368	2,527	***	4,137	***
Growth					
Asset Growth	9.42%	18.72%	***	18.12%	***
Sales Growth	15.64%	20.96%	***	20.21%	***
Employee Growth	0.56%	5.37%	***	4.84%	***
Capital Structure and Financial Health					
Long-Term Debt/Total Liabilities	2.64%	8.49%	***	22.31%	***
Leverage	53.58%	56.17%	***	60.53%	***
Retained Earnings/Total Assets	6.77%	8.28%	***	8.65%	***
Profitability					
ROA	4.14%	4.83%	***	5.24%	***
No. of Firms (Orbis database)	1,915	425		194	
Investment					
Capital Expenditures	6,628	16,233	***	52,840	***
Capital Expenditures/Sales	5.84%	8.13%	***	10.22%	***
No. of Firms (Worldscope database)	2,235	615		224	

Note: The figures are calculated as the median across all firms of the median for each firm for 2003-2010. Total assets, sales, and capital expenditures are in thousands of 2011 USD. Sources: SDC Platinum, Orbis, and Worldscope.

Firms that issue differ from those that don't

Firm Characteristics in India

Firm Characteristics	Firms with				
	No Issues	Equity Issues		Bond Issues	
Size					
Total Assets	8,968	55,491	***	593,622	***
Sales	9,519	41,925	***	272,083	***
Employees	837	2,700	***	4,600	***
Growth					
Asset Growth	5.25%	15.76%	***	18.24%	***
Sales Growth	9.82%	17.36%	***	17.60%	***
Employee Growth	0.96%	3.62%	***	4.35%	***
Capital Structure and Financial Health					
Long-Term Debt/Total Liabilities	49.49%	56.76%	***	62.95%	***
Leverage	52.46%	62.16%	***	64.39%	***
Retained Earnings/Total Assets	3.68%	4.98%	***	7.08%	***
Profitability					
ROA	2.58%	3.61%	***	5.13%	***
No. of Firms (Orbis database)	3,427	725		289	
Investment					
Capital Expenditures	1,754	4,930	***	18,837	***
Capital Expenditures/Sales	4.39%	6.40%	***	7.46%	***
No. of Firms (Worldscope database)	1,848	601		281	

Note: The figures are calculated as the median across all firms of the median for each firm for 2003-2010. Total assets, sales ,and capital expenditures are in thousands of 2011 USD. Sources: SDC Platinum, Orbis, and Worldscope.

Firms that are larger and grow more are more likely to issue equity or bonds

Probability of Capital Raising Activity in China

Independent Variables	Cox Regressions			Probit Regressions		
	Equity	Bonds	Equity or Bonds	Equity	Bonds	Equity or Bonds
Size						
Total Assets	1.579 ***	2.077 ***	1.652 ***	0.049	0.461 ***	0.173 ***
	(0.067)	(0.130)	(0.066)	(0.050)	(0.066)	(0.048)
Growth						
Asset Growth	1.013 ***	1.000	1.011 ***	0.005 ***	-0.002	0.004 **
	(0.001)	(0.002)	(0.001)	(0.002)	(0.002)	(0.002)
Capital Structure and Financial Health						
Long-Term Debt / Total Liabilities	1.846 *	32.110 ***	3.653 ***	-0.330	0.859 **	0.020
	(0.594)	(13.200)	(0.973)	(0.304)	(0.343)	(0.280)
Leverage	0.167 ***	3.925 **	0.299 ***	0.843 ***	0.604	0.764 ***
	(0.046)	(2.210)	(0.080)	(0.269)	(0.378)	(0.262)
Retained Earnings / Total Assets	1.232	29.190	1.733	0.709 ***	0.120	0.568 **
	(0.397)	(68.090)	(0.771)	(0.238)	(0.314)	(0.225)
Profitability						
ROA	0.976 ***	1.003	0.984 **	0.022 ***	0.032 **	0.024 ***
	(0.008)	(0.022)	(0.008)	(0.008)	(0.014)	(0.008)
Constant				-2.217 ***	-7.995 ***	-3.601 ***
				(0.602)	(0.875)	(0.587)
No. of Observations	11,597	12,040	11,297	1,171	1,171	1,171

Note: the first three columns report Cox estimates of the hazard ratio of capital raising activity between 2005 and 2010. The next three columns report Probit estimates of capital raising activity between 2005 and 2010 as a function of firm characteristics in 2004. Sources: SDC Platinum and Orbis.

Firms that are larger and grow more are more likely to issue equity or bonds

Probability of Capital Raising Activity in China

> A one standard deviation increase in the log of total assets raises the baseline probability of issuing by **83%**.

> A one standard deviation increase in the growth rate of assets raises the baseline probability of issuing by **40%**.

Independent Variables	Equity	Bonds	Equity or Bonds	Equity	Bonds	Equity or Bonds
Size						
Total Assets		*	1.652 ***			...8 ***
	(0.067)	(0.130)	(0.066)			
Growth						
Asset Growth	1.013 ***	1.000	1.011 ***	0.005 ***	-0.002	0.004 **
	(0.001)	(0.002)	(0.001)	(0.002)	(0.002)	(0.002)
Capital Structure and Financial Health						
Long-Term Debt / Total Liabilities	1.846 *	32.110 ***	3.653 ***	-0.330	0.859 **	0.020
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Firms that are larger and grow more are more likely to issue equity or bonds

Probability of Capital Raising Activity in India

Independent Variables	Cox Regressions			Probit Regressions		
	Equity	Bonds	Equity or Bonds	Equity	Bonds	Equity or Bonds
Size						
Sales	1.335 ***	2.363 ***	1.466 ***	0.078 ***	0.419 ***	0.167 ***
	(0.036)	(0.136)	(0.040)	(0.025)	(0.067)	(0.028)
Growth						
Sales Growth	1.			0.000	0.001 ***	0.000
	(0.0			(0.000)	(0.001)	(0.000)
Capital Structure and Financial Health						
Long-Term Debt / Total Liabilities	2		***	0.845 ***	1.544 ***	1.159 ***
	(0.404)	(28.330)	(0.714)	(0.190)	(0.311)	(0.193)
Leverage	0.437 ***	2.563 *	0.467 ***	-0.079	-0.423	-0.327 *
	(0.080)	(1.445)	(0.081)	(0.192)	(0.349)	(0.187)
Retained Earnings / Total Assets	0.927	3.398 **	0.911	0.120	0.138	-0.046
	(0.063)	(1.967)	(0.065)	(0.183)	(0.309)	(0.163)
Profitability						
ROA	0.972 ***	1.015	0.981 ***	-0.008	0.008	-0.003
	(0.005)	(0.011)	(0.005)	(0.006)	(0.007)	(0.006)
Constant				-1.683 ***	-6.177 ***	-2.485 ***
				(0.250)	(0.808)	(0.294)
No. of Observations	13,978	14,321	13,459	1,050	1,050	1,050

> A one std. dev. increase in total sales raises the likelihood of issuing by **2.3** percentage points.

Note: the first three columns report Cox estimates of the hazard ratio of capital raising activity between 2005 and 2010. The next three columns report Probit estimates of capital raising activity between 2005 and 2010 as a function of firm characteristics in 2004. Sources: SDC Platinum and Orbis.

Presentation

Equity issuers are larger and become larger

Firm Dynamics around Issuance Activity

	China - Equity			India - Equity		
	Total Assets	**Sales**	**Employees**	**Total Assets**	**Sales**	**Employees**
Independent Variables						
Year before Issue	0.338 ***	0.450 ***	1,014 ***	0.933 ***	0.862 ***	3,164
	(0.068)	(0.082)	(381)	(0.099)	(0.106)	(2,676)
Issue Year	0.840 ***	0.763 ***	2,613 ***	1.729 ***	1.550 ***	1,956
	(0.063)	(0.074)	(455)	(0.092)	(0.100)	(2,299)
Year after Issue	1.195 ***	1.212 ***	5,871 ***	2.145 ***	1.691 ***	3,765 *
	(0.088)	(0.098)	(917)	(0.132)	(0.127)	(1,934)
Constant	10.950 ***	10.170 ***	218	9.680 ***	6.633 ***	621 ***
	(0.375)	(0.063)	(136)	(1.229)	(2.378)	(104)
F-Tests:						
Issue Year vs. Year Before	0.502 ***	0.313 ***	1,599 ***	0.796 ***	0.688 ***	-1,208
Year After vs. Issue Year	0.355 ***	0.449 ***	3,258 ***	0.416 ***	0.141	1,809
Year After vs. Year Before	0.857 ***	0.762 ***	4,857 ***	1.212 ***	0.829 ***	601
Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes
Industry Dummies	Yes	Yes	Yes	Yes	Yes	Yes
No. of Observations	15,003	14,826	13,847	26,289	21,602	980
R-Squared	0.17	0.10	0.09	0.15	0.19	0.05
No. of Firms	2,419	2,409	2,402	4,207	3,519	361

Note: regressions of firm characteristics on a three-year window around capital raising issues. Regressions include non-issuing firms as a control group. Total assets and sales are in logs of thousands 2011 USD. Top and bottom 1% of observations is dropped. Standard errors are clustered at the firm level. Source: SDC Platinum and Orbis.

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No. of Firms	2,419	2,409	2,402	4,207	3,519	361

> Firms issuing equity are **40% larger** than control group the year before the issue.

> Firms issuing equity are **150% larger** than control group the year before the issue.

Note: regressions of firm characteristics on a three-year window around capital raising issues. Regressions include non-issuing firms as a control group. Total assets and sales are in logs of thousands 2011 USD. Top and bottom 1% of observations is dropped. Standard errors are clustered at the firm level. Source: SDC Platinum and Orbis.

Issuing firms also grow more before and on impact

Firm Dynamics around Issuance Activity

Independent Variables	China - Equity			India - Equity		
	Asset Growth	Sales Growth	Employee Growth	Asset Growth	Sales Growth	Employee Growth
Year before Issue	7.967 ***	8.582 ***	7.476 ***	16.200 ***	13.890 ***	8.942 **
	(0.976)	(1.334)	(2.003)	(1.324)	(4.012)	(4.129)
Issue Year	30.870 ***	11.440 ***	12.490 ***	28.530 ***	14.900 **	5.546
	(1.865)	(2.344)	(3.221)	(2.635)	(5.955)	(5.294)
Year after Issue	1.523	1.425	4.264 **	7.889 ***	(7.642) ***	2.717
	(1.123)	(1.368)	(2.091)	(1.237)	(2.509)	(2.914)
Constant	35.980 ***	42.190 ***	17.030 ***	(12.42)	68.780	1.302
	(9.557)	(15.38)	(0.951)	(16.71)	(64.59)	(3.741)
F-Tests:						
Issue Year vs. Year Before	22.903 ***	2.858	5.014	12.330 ***	1.010	(3.396)
Year After vs. Issue Year	-29.347 ***	-10.015 ***	(8.226) **	-20.641 ***	-22.542 ***	(2.829)
Year After vs. Year Before	-6.444 ***	-7.157 ***	(3.212)	-8.311 ***	-21.532 ***	(6.225)
Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes
Industry Dummies	Yes	Yes	Yes	Yes	Yes	Yes
No. of Observations	13,409	13,184	11,913	21,973	17,895	585
R-Squared	0.08	0.04	0.06	0.13	0.03	0.07
No. of Firms	2,448	2,419	2,000	4,222	3,403	202

Note: regressions of firm characteristics on a three-year window around capital raising issues. Regressions include non-issuing firms as a control group. Total assets and sales are in logs of thousands 2011 USD. Top and bottom 1% of observations is dropped. Standard errors are clustered at the firm level. Source: SDC Platinum and Orbis.

Issuing firms also grow more before and on impact

Firm Dynamics around Issuance Activity

Independent Variables	China - Equity			India - Equity		
	Asset Growth	Sales Growth	Employee Growth	Asset Growth	Sales Growth	Employee Growth
Year before Issue	7.967 ***	8		16.200 ***	13	
	(0.976)			(1.324)		
Issue Year	30.870 ***			28.530 ***	(5	
	(1.865)	(2.		(2.635)		
Year after Issue	1.523	1.		7.889 ***	(7	
	(1.123)	(1.		(1.237)	(2	
Constant	35.980 ***	42.		(12.42)	68	
	(9.557)	(15		(16.71)	(6	
F-Tests:						
Issue Year vs. Year Before	22.903 ***	2.858	5.014	12.330 ***	1.010	(3.396)
Year After vs. Issue Year	-29.347 ***	-10.015 ***	(8.226) **	-20.641 ***	-22.542 ***	(2.829)
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- The year **before** issuing, firms grow **8% more** than control group.
- The **year of issue** they grow **31% more** than non-control group.

- The year **before** issuing, firms grow **16% more** than control group.
- The **year of issue** they grow **29% more** than control group.

Note: regressions of firm characteristics on a three-year window around capital raising issues. Regressions include non-issuing firms as a control group. Total assets and sales are in logs of thousands 2011 USD. Top and bottom 1% of observations is dropped. Standard errors are clustered at the firm level. Source: SDC Platinum and Orbis.

Presentation

Firms issuing equity are larger than non-issuers and grow more

Firm Size Distribution by Issuance Activity

Note: a firm is considered as issuing if it had at least one equity issue between 2003 and 2010. Only firms with data in both years are included in the figures. The kernel is Gaussian with a band width of 1.5. Sources: Orbis and SDC Platinum.

Firms issuing equity are larger than non-issuers and grow more

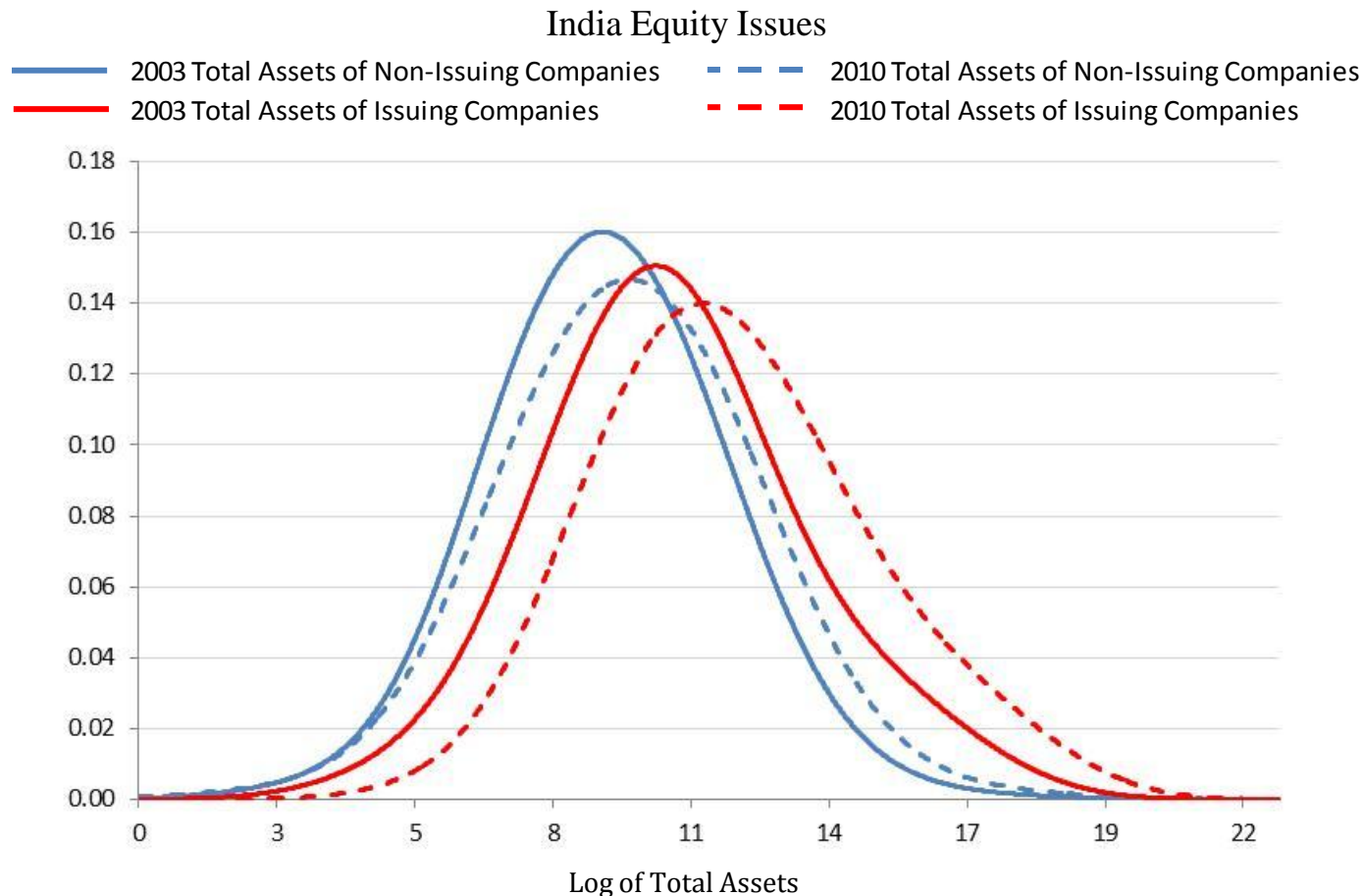## Firm Size Distribution by Issuance Activity

India Equity Issues

Legend:
- 2003 Total Assets of Non-Issuing Companies
- 2010 Total Assets of Non-Issuing Companies
- 2003 Total Assets of Issuing Companies
- 2010 Total Assets of Issuing Companies

Log of Total Assets

Note: a firm is considered as issuing if it had at least one equity issue between 2003 and 2010. Only firms with data in both years are included in the figures. The kernel is Gaussian with a band width of 1.5. Sources: Orbis and SDC Platinum.

For bond issuers, the results are starker ...

Firm Size Distribution by Issuance Activity

China Bond Issues

— 2003 Total Assets of Non-Issuing Companies   - - - 2010 Total Assets of Non-Issuing Companies

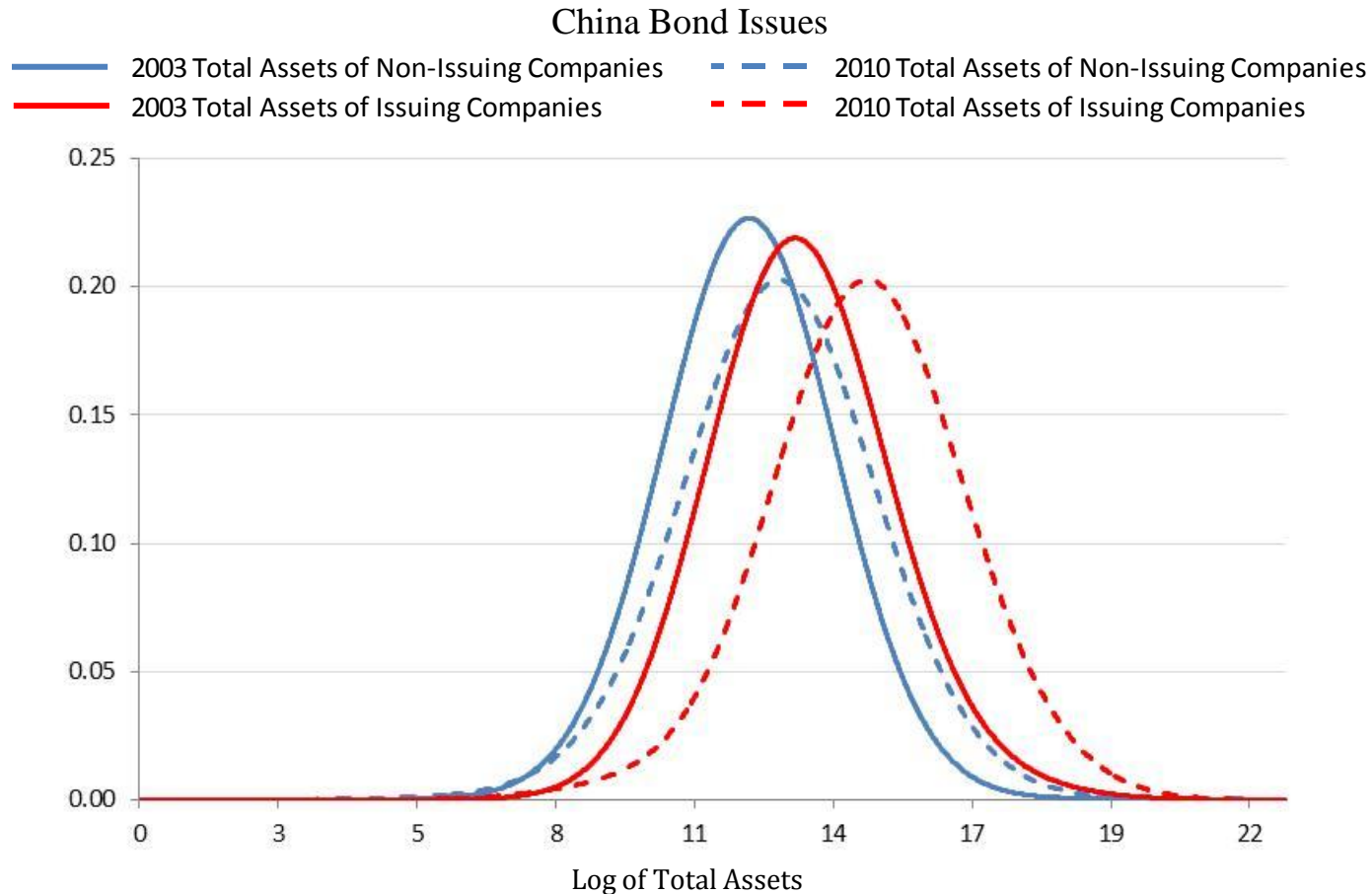— 2003 Total Assets of Issuing Companies   - - - 2010 Total Assets of Issuing Companies

Log of Total Assets

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... more so in India

Firm Size Distribution by Issuance Activity

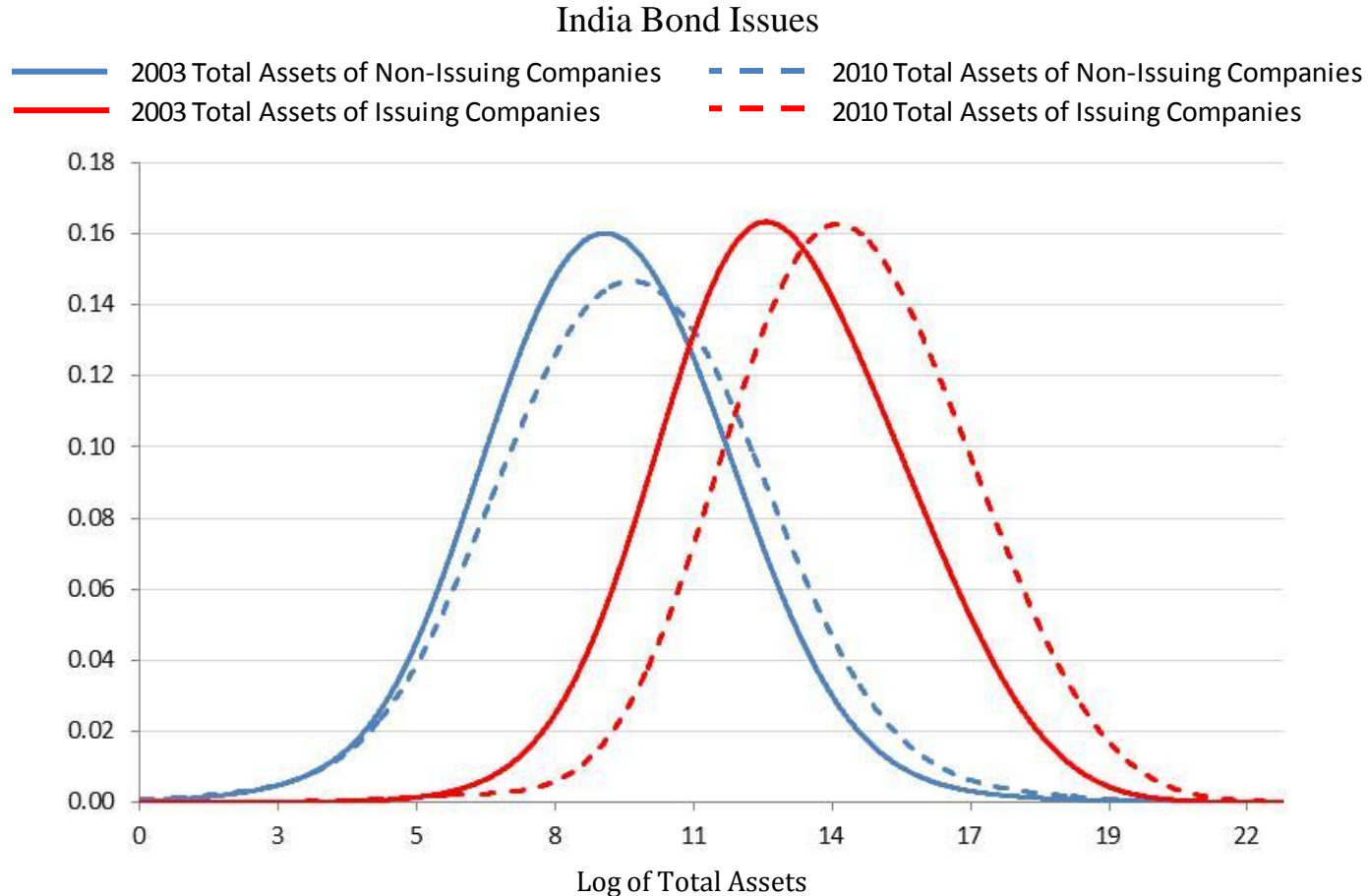### India Bond Issues

Note: a firm is considered as issuing if it had at least one equity issue between 2003 and 2010. Only firms with data in both years are included in the figures. The kernel is Gaussian with a band width of 1.5. Sources: Orbis and SDC Platinum.

FSD shifts more users than for non-users

Quantile Regressions of Total Assets

China - Equity

Independent Variables	10%	30%	50%	70%	90%	Mean
Issuers	0.252	0.218 **	0.225 **	0.272 ***	0.591 ***	0.288 ***
	(0.163)	(0.099)	(0.094)	(0.095)	(0.163)	(0.083)
Y2010	0.218 **	0.410 ***	0.570 ***	0.756 ***	1.000 ***	0.602 ***
	(0.109)	(0.066)	(0.063)	(0.064)	(0.109)	(0.056)
Issuers*Y2010	0.985 ***	0.857 ***	0.796 ***	0.692 ***	0.642 ***	0.780 ***
	(0.229)	(0.139)	(0.132)	(0.134)	(0.230)	(0.117)
Constant	11.010 ***	11.720 ***	12.150 ***	12.530 ***	13.240 ***	12.140 ***
	(0.084)	(0.051)	(0.048)	(0.049)	(0.084)	(0.043)
No. of Observations	2,254	2,254	2,254	2,254	2,254	2,202
R-squared						0.209

India - Equity

Independent Variables	10%	30%	50%	70%	90%	Mean
Issuers	1.010 ***	1.110 ***	0.954 ***	1.026 ***	1.994 ***	0.767 ***
	(0.198)	(0.174)	(0.167)	(0.175)	(0.268)	(0.131)
Y2010	-0.047	0.358 ***	0.513 ***	0.666 ***	0.778 ***	0.551 ***
	(0.128)	(0.113)	(0.108)	(0.113)	(0.173)	(0.086)
Issuers*Y2010	0.919 ***	0.453 *	0.623 ***	0.809 ***	0.291	0.732 ***
	(0.279)	(0.245)	(0.236)	(0.247)	(0.378)	(0.186)
Constant	7.573 ***	8.786 ***	9.786 ***	10.740 ***	12.040 ***	9.970 ***
	(0.104)	(0.092)	(0.088)	(0.092)	(0.141)	(0.068)
No. of Observations	2,812	2,812	2,812	2,812	2,812	2,393
R-squared						0.173

Note: quantile and mean regressions of total assets on a constant, a dummy for 2010, a dummy for issuing firms, and an interaction term with these two dummies. Dependent variable pools data on total assets in 2003 and 2010. Firms with no issues had no equity issue between 2003 and 2010. Source: SDC Platinum and Orbis.

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No. of Observations	2,254	2,254				
R-squared						

At the 10th decile of manufacturing firms in China:

- Non-users had US$ 60 million in total assets in 2003.
- Equity issuers had US$ 77 million in assets in 2003.
- Both issuers and non-issuers grew between 2003 and 2010.
- But issuers had an additional 170% expansion of assets than that observed for non-issuers (or $162 million).

India - Equity

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Financial markets affect the evolution of the FSD

Tests of Equality of Distributions
Kolmogorov-Smirnov Tests

	Total Assets		**Sales**	
Panel A. China				
	2003	**2010**	**2003**	**2010**
Equity Market Users vs. Non-Users	0.128 ***	0.367 ***	0.143 ***	0.321 ***
Bond Market Users vs. Non-Users	0.413 ***	0.591 ***	0.314 ***	0.456 ***
Equity Market Users vs. All Firms	0.083	0.260 ***	0.102 **	0.231 ***
Bond Market Users vs. All Firms	0.363 ***	0.490 ***	0.274 ***	0.369 ***
Non-Users vs. All Firms	0.052	0.107 ***	0.046	0.090 ***
Panel B. India				
	Total Assets		**Sales**	
	2003	**2010**	**2003**	**2010**
Equity Market Users vs. Non-Users	0.250 ***	0.321 ***	0.214 ***	0.290 ***
Bond Market Users vs. Non-Users	0.676 ***	0.737 ***	0.586 ***	0.658 ***
Equity Market Users vs. All Firms	0.172 ***	0.231 ***	0.157 ***	0.207 ***
Bond Market Users vs. All Firms	0.603 ***	0.647 ***	0.542 ***	0.605 ***
Non-Users vs. All Firms	0.079 ***	0.096 ***	0.072 ***	0.086 ***

Note: total assets and sales are in logs of 2011 U.S. dollars. A firms is considered an equity (bond) issuer if it had at least one equity (bond) issue during the 2004-2010 period. Firms with an IPO and no other capital raising during that period are excluded from the sample. Only firms with data for both years are included. Sources: SDC Platinum and Orbis.

Messages are robust to alternative specifications

- Use of sales vs. assets for firm size and growth

- Financial vs. non-financial firms

- State-owned vs. non-state-owned firms

- Expansion of the window around issuance, using all years before and after issuance

- Firm fixed effects

Conclusions

- The expansion of financial activity has been much more limited than aggregate numbers suggest

  - ➢ Few firms receive capital market financing

  - ➢ Even fewer firms receive the bulk of financing

- Firms using capital markets are different than other firms

  - ➢ Large firms are the ones that have access

  - ➢ They grow faster just before and during the year of issue

  - ➢ They also increase their capital expenditures and expand debt maturity

- FSD shifts more over time for firms that raise capital than for those that do not

Conclusions

- Finance matters, but differently than expected
  - Firms that raise capital seem to benefit from it
  - Even large firms seem to be partly financially constrained
  - But more work is required on exploring financial constrains
- What drives the changes in firm dynamics around issuance?
  - Supply side? Frictions in the financial system typically affect which firms obtain financing
  - Demand side? Firms growing more rapidly just before issuing suggests that more business opportunities might propel them to raise capital
- Capital market development and access for corporations
  - Expanding capital markets typically help the largest firms
  - Effect on smaller firms is still needs to be understood and quantified

Thank you!