

Information Asymmetry, Liquidity, and the Choice between Private and Public Bond Issuance

Loc Bui

University of Nebraska-Lincoln

Motivation

- Corporate bonds are a large component of firms' financing.
 - In 2020: corporations issued \$2.28 trillion in bonds versus \$390 billion in equity.
- A recent surge in private capital raising (\$731 billion in bonds in 2020) has concerned the Securities and Exchange Commission (SEC) about its impact on investors' welfare.
 - SEC suggests to impose more disclosure requirements on the private market while opponents argue that such idea would do more harm than good.
- Understanding firms' motives for issuing bonds in public versus private markets may aid regulators with decision making.
- Question: How do information asymmetry and expected liquidity impact firms' choice between issuing in the private versus public market?**

This Paper

- Investigate regulation-induced changes in firms' revealed preference for public versus private debt market by using the Securities Offering Reform (SOR) in 2005 to provide causal evidence.
- Provide the first evidence of the real effects on firms' operations as a consequence of the regulatory change.
- Provide the first evidence on how expected liquidity may impact firms' choice of debt markets.

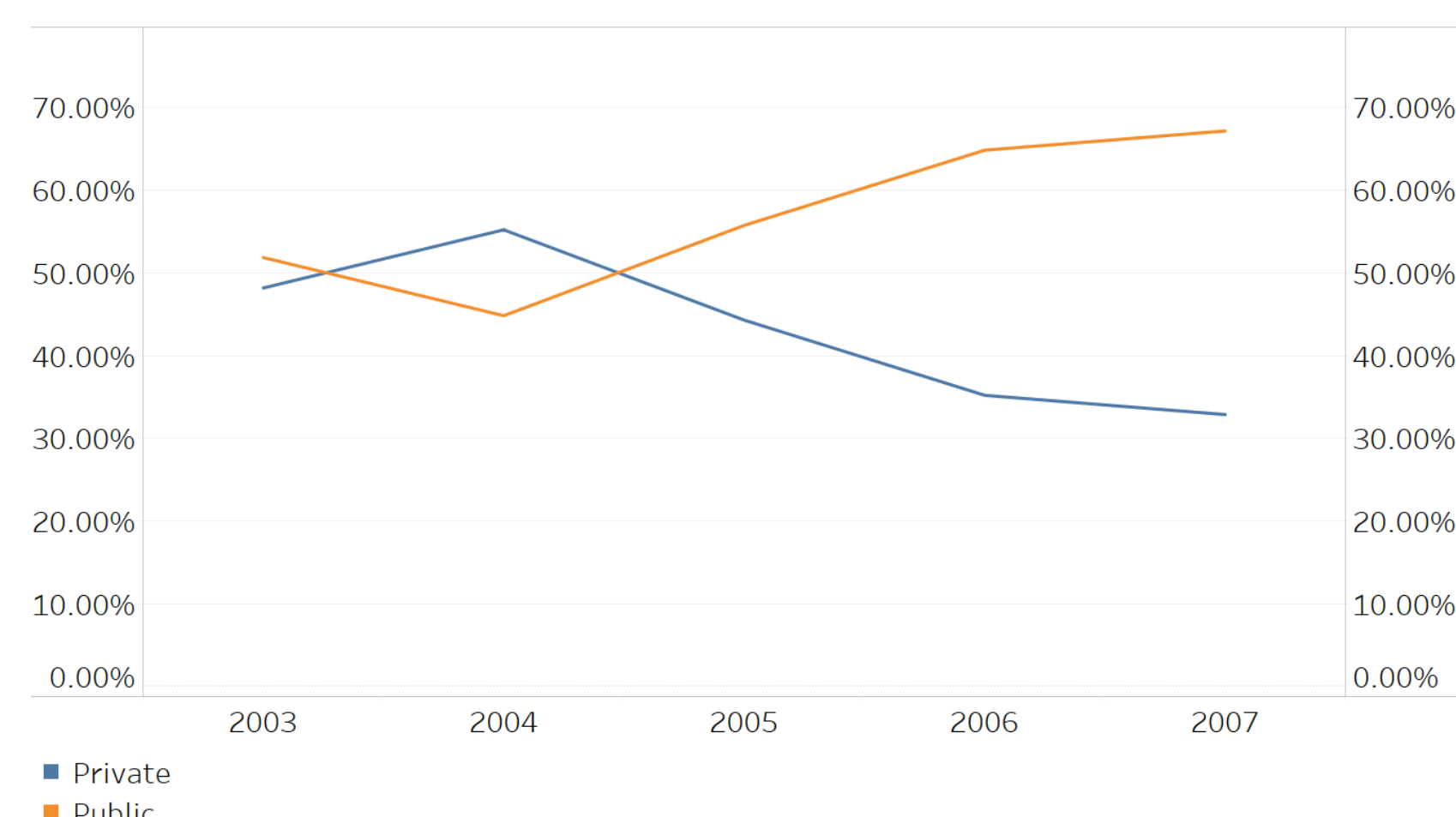


Figure 1: Private versus Public Bonds

Speed of Issuance, Uncertainty, and Market Choice

- Public bond issuance bears uncertainty and delay costs because registration is time-consuming and subject to SEC approval.
 - Private bond issuance is faster and with no regulatory uncertainty. But investors discount private bonds because of lack of disclosure and low expected liquidity (Smith, 1986; Ellul and Pagano, 2006).
 - SOR significantly reduces issuance delays and minimizes uncertainty for public offerings.
- H1: After SOR, firms are more likely to borrow in the public market. This effect is stronger for firms characterized by higher information asymmetry and whose bonds are characterized by lower expected liquidity.**

Bond Market Preference Tests

- Dependent Variable: private = 1, public = 0.

	(1)	(2)	(3)
Shelf_Eli x Post	-0.114*** (-3.26)	-0.122*** (-4.16)	-0.119*** (-4.05)
Shelf_Eli	-0.572*** (-32.06)	-0.095*** (-5.66)	-0.094*** (-5.41)
Controls	No	Yes	Yes
Year FE	Yes	Yes	Yes
Industry FE	No	No	Yes
N	2,685	2,685	2,685
Adj. R2	0.1687	0.5498	0.5522

- Shelf_Eli = 1 if a firm is eligible to issue a bond in the public market.
- Post = 1 for the period after the SOR enactment.
- When regulatory uncertainty and delay costs are alleviated, firms are more likely to borrow in the public market.

Information and Liquidity Tests

	Public (1)	Non-public (2)	(1) - (2) (3)	Prior Shelf = 1 (4)	Prior Shelf = 0 (5)	(4) - (5) (6)
Shelf_Eli x Post	-0.087** (-2.30)	-0.193*** (-3.97)	0.106* (1.71)	0.137 (1.53)	-0.179*** (-5.25)	0.316*** (3.32)
Shelf_Eli	-0.114*** (-5.11)	-0.024 (-0.77)	-0.090** (-2.38)	-0.631*** (-4.07)	-0.057*** (-3.01)	-0.574*** (-3.68)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes
N	2,268	417	832	1,853	1,853	1,853
Adj. R2	0.5041	0.6261	0.2116	0.4695	0.4695	0.4695

- Firms characterized by higher information asymmetry are more likely to borrow in the public market.

	Large Issue (7)	Small Issue (8)	(7) - (8) (9)
Shelf_Eli x Post	0.106 (1.19)	-0.162*** (-5.06)	0.268*** (2.82)
Shelf_Eli	-0.351*** (-4.67)	-0.072*** (-4.02)	-0.279*** (-3.61)
Controls	Yes	Yes	Yes
Year FE	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes
N	609	2,076	2,076
Adj. R2	0.4897	0.4627	0.4627

- Firms whose debt offerings are characterized by lower expected liquidity are more likely to borrow in the public market.

Real Effects on Firms' Operations

	Capx-to-PPENT (1)	Capx-to-Liabilities (2)	Capx growth (3)	Assets growth (4)
Shelf_Eli x Post	0.041** (2.48)	0.012** (2.13)	0.154*** (2.69)	0.066* (1.93)
Shelf_Eli	-0.011 (-0.62)	-0.004 (-0.76)	-0.113** (-2.15)	0.001 (0.03)
Controls	Yes	Yes	Yes	Yes
Year & Firm FE	Yes	Yes	Yes	Yes
N	2,855	3,125	3,125	3,125
Adj R2	0.6584	0.8673	0.3969	0.3729

- After public market frictions are alleviated, firms likely benefit from the lower cost of capital.
- This creates more positive NPV projects. Thus, firms increase long-term investments.

	Liabilities-to-Assets (1)	Total Debt-to-Assets (2)	LT Debt-to-Assets (3)	Cash-to-Assets (4)	Cash-to-PPENT (5)
Shelf_Eli x Post	-0.009 (-0.66)	-0.025 (-1.48)	-0.015 (-0.91)	-0.012 (-1.47)	-0.044 (-0.21)
Shelf_Eli	0.026 (1.59)	0.040** (2.15)	0.03 (1.55)	0.001 (0.09)	-0.07 (-0.20)
Controls	Yes	Yes	Yes	Yes	Yes
Year & Firm FE	Yes	Yes	Yes	Yes	Yes
N	3,125	3,125	3,125	3,125	3,077
Adj R2	0.8590	0.8531	0.8615	0.7816	0.8439

- There is no evidence that firms change leverage or cash holdings.
- One possible interpretation is firms try to avoid increased financial distress costs and cash is the passive result of changes in firms' internal resources.

	Operating Income-to-Assets (1)	Operating Income-to-Net Assets (2)
Shelf_Eli x Post	0.018** (2.3)	0.020** (2.2)
Shelf_Eli	-0.011** (-1.98)	-0.015** (-2.31)
Controls	Yes	Yes
Year & Firm FE	Yes	Yes
N	3,125	3,123
Adj R2	0.8442	0.8450

- Firms also improve their profitability by increasing investments in value-producing projects.
- Economic magnitude is significant: 1.8% rise in profitability. This implies a 14% growth in operating performance compared with the pre-SOR average of 12.8%.

Conclusion

- I use the effects of the SOR to provide new causal evidence on firms' debt market choice.
 - After SOR improves the public issuance process, firms are more likely to issue bonds in the public market.
 - This effect is stronger for firms characterized by higher information asymmetry and whose debt offerings are characterized by lower expected liquidity.
 - In addition, the regulatory change increases firms' investments and improves operating performance.
- Important regulatory implication:
 - Regulators may consider reducing public market frictions instead of imposing more disclosure on the private market.

Contact Information

- Web: <https://sites.google.com/view/loctanbui>
- Email: loc.bui@huskers.unl.edu

