

Online Appendix: Detailed notes on sample creation

We obtain issuance data from Thomson-Reuters SDC Platinum (for both public debt and equity) and Mergent FISD (for public debt). Credit ratings that are not available in SDC and FISD are supplemented by data from S&P Ratings Xpress. Fundamental firm data is obtained from Compustat, and price/return data are obtained from CRSP, Compustat North America, and Compustat Global security pricing files.

The FISD and Thomson-Reuters SDC bond issuance databases are complementary. They both contain data on the issuer and issue CUSIP, principal amount issued, issue date, security type (e.g., senior notes, debentures, etc.), whether the issue is secured, its credit rating, maturity, offer yield, and issuer's primary SIC code, among others. Additionally, FISD reports more than 50 variables on issuer/subsidiary restrictive and bondholder protective covenants. The Thomson-Reuters SDC Equity issuance database carries information on various terms of the IPO including, but not limited to, principal amount issued, issue date, offer price, security type, stock's closing price on the first day or trading, and other IPO-related information such as underwriting and management fees, number of (non) book-runners and managers, and syndicate information.

We merge the bond and equity issuance samples from SDC and FISD with Compustat, based on the historical CUSIP.¹ We focus on the public debt issuance of corporate bonds and common stock IPOs by private US-based companies, but exclude issuance by financial services firms from both equity and bond samples.² After imposing these filters, we are able to match 3,525 FISD issuers with 15,028 issues, 4,081 SDC debt issuers with 24,896 issues, and 6,709 SDC IPO equity issues with Compustat listed issuers between January 1987 and December 2009.

We identify the date when a company issues public debt for the first time as the earliest of the first public debt issuance dates in FISD and SDC. As an additional check, we cross-check the first public debt issuance dates with first transaction dates in TRACE (when available after 2002) and with the first time the company's debt obtains a rating according to the S&P Ratings Xpress (if a

¹ We build the historical GVKEY-CUSIP link starting with the CRSP-Compustat Merged Database. Additional links are obtained from the Compustat Corporate Tracker database (which provides a historical map between GVKEY and CUSIP going back to the 1980s and includes securities outside the CRSP universe) as well as the Compustat Point-in-Time database (from 1987 onwards). Finally, we supplement these links with a header mapping between GVKEY and CUSIP provided in the Compustat Company table.

² The FISD bond sample includes bond types CDEB, CMTN, CMTZ, CCOV, CP, USBN, CS, CCPI, and CPAS and excludes rule 144A private placement issues; SDC public debt sample includes regular bonds, notes, medium term notes and floating notes, debentures, senior and subordinated notes. The SDC equity IPO sample incorporates corrections suggested on Jay Ritter's website at <http://bear.warrington.ufl.edu/ritter/SDC%20corrections122811.pdf>.

rating exists). This is done to ensure that the date in question is indeed the first time when the company issues public debt.

We identify the first date of public equity issuance as the earliest date between the IPO date in SDC and the first date with non-missing price data in CRSP and Compustat security pricing data (North America and Global). The IPO dates reported by SDC do not necessarily correspond to the date the firm actually issued public equity for the first time. Specifically, there are cases when the firm is traded (non-missing prices in CRSP or Compustat), but its IPO in SDC is dated to a later period.³ Moreover, it is important to consider Compustat pricing data in the analysis because we also wish to eliminate cases when a US firm chooses to list its equity either in the US, but on an exchange not covered by CRSP (i.e., outside of NYSE/ AMEX /NASDAQ /ARCA), or on a foreign exchange outside the US (which can be identified by cross-referencing with Compustat Global security pricing files). Finally, cross-referencing CRSP and Compustat security files with the SDC equity issuance database also helps exclude cases of reverse LBOs. Using this algorithm, we are able to determine the dates of the initial public debt offering for 4,265 distinct issuers (with matched Compustat GVKEY) as well as the date when a company first begins trading its equity for 7,888 distinct issuers (5,948 issuers with valid IPO data in the SDC Platinum database, with the rest from CRSP and Compustat security pricing files) during 1987-2009.

Our primary sample consists of private firms that decide to issue public debt for the first time at least 30 days before they issue equity for the first time. These firms do not have stock price histories on the date of the public debt issuance, both in CRSP and Compustat. Over the 1987-2009 period, this IPDO sample includes 560 issuers in 43 different industries (based on the Fama-French 48 industry classification). Since there are no private firms that issued public debt for the first time during 2008 and 2009, all of our observations fall within the 1987-2007 time period. Out of the 560 identified IPDO firms, 151 are listed both on SDC and FISD, 380 are listed only in the

³ For example, Bucyrus International Inc. (GVKEY=024363) began trading its common stock for the first time in February 1995, according to Compustat pricing data. It was delisted in September 1997, issued public debt in November 1997, and began publicly trading again in July 2004. The SDC equity issues database (SDC_ID 22287005) has the record only for the July 2004 IPO issuance. According to our selection criteria, this case is excluded from our sample of IPDO firms.

FISD database, and 29 are listed only in SDC, suggesting it is essential to use FISD and SDC together to construct a comprehensive IPDO sample.⁴

Finally, we eliminate IPDO firms that are private subsidiaries of publicly traded firms because informational asymmetry arguments are likely to be much less relevant for such firms due to the public status of their parent. To identify whether the firm is a subsidiary, we use the Capital IQ Fundamentals database.⁵ We use Capital IQ in preference to SDC in identifying subsidiary information since the SDC data largely applies to firms whose debt is already public, which is not applicable to our data. Beyond this, when these sources are ambiguous on the status of the firms, we manually check the public debt issuance registration statements filed with the SEC by the firms when they announce their public debt issuance. A majority (around 70%) of removed subsidiaries are from the telecom and utilities sectors. Some examples of removed cases include Comcast Cellular Corp (a subsidiary of Comcast Corp), Sprint Spectrum LP (a subsidiary of Sprint) and PG&E National Energy Group Inc (a subsidiary of PG&E Corp). We retain, however, cases when the public debt was issued through a private subsidiary of a private parent since the asymmetric information argument still applies in this case.⁶

Ownership

We collect sponsor-backing information using a combination of hand-collected data for IPDO firms and relevant indicators in SDC Global Issues and VentureExpert for matching samples. Specifically, we denote a company in a matching IPO or PFDO sample as sponsor-backed if it has a “Private Equity Backed IPO Issue flag” or a “Venture Capital Backed IPO Issue Flag” equal to ‘Yes’ in the SDC Global Issues database, or if it has the “Buyout Backed Public Company”/“Venture Backed Public Company” flag in VentureXpert set to ‘Yes’ at the time of public security issuance. Since SDC does not consistently report whether a firm is sponsor-backed when the IPDO is announced, we also supplement SDC ownership data with hand collected data

⁴ We find multiple cases when the historical Cusip information in FISD does not match the list of historical Cusips in SDC or our historical GVKEY-CUSIP link. Whenever there is no Cusip match, we manually match by the firm’s historical name and offer date.

⁵ The Capital IQ Helper package includes the variable CompanyStatusTypeName which identifies whether a company is an operating parent company, operating subsidiary, or non-operating shell company, among other types.

⁶ One example of an IPDO firm that issued public debt before issuing public equity through a private subsidiary is United Parcel Service Inc. The company was founded in 1907, filed its IPO S-1 registration statement on July 21, 1999 and began trading its equity publicly on Nov 30, 1999. According to the SDC Bond Issues and Mergent FISD databases, the company had its IPDO in Dec 1989, when it issued 8.375% 30-year debentures maturing in 2020 in the amount of \$700 million through its private subsidiary, United Parcel Service of America Inc. The size of this debt offering was in the top 2% among all public debt issues in that year.

on beneficial ownership of these companies from their registration statements and initial 10-K/10-Q filings. We then flag an IPDO as sponsor backed if one of the owners' names is found in the list of National Venture Capital Association (NVCA) or contain the terms such "venture", "capital", "partner", "financial", "investment", "private equity" and their word derivatives.⁷ We acknowledge that this is a rough measure but there are no sources that list comprehensive ownership data for private firms, either in the US or in other countries. For example, Pagano, Panetta, and Zingales (1998) are able to collect IPO prospectus ownership data for only 62 firms that eventually go public through equity.

⁷ Registration statements contain data on controlling stockholders, beneficial owners and principal shareholders. The NVCA list can be found at http://www.nvca.org/index.php?option=com_mtree&Itemid=173. Our analysis suggests that the NVCA list does not include all venture capital firms (e.g., venture firms as Brentwood Venture Capital, CIBC Wood Gundy Ventures, and Capital Dimensions Venture Fund, among others, are not included in the list). Therefore, we manually search for company names on the web and also examine company websites to determine whether the firm is a venture capital or private equity firm.

Table O-1. IPDO vs. PFDO firms: Comparison of firm and debt characteristics, 1987-2007

Panel A reports industry-adjusted (except for age, assets, and sales) medians for firm characteristics for the IPDO and PFDO samples described in Table I. Definitions of these items are provided in Table 3. **Panel B** reports data for three groups of deal characteristics related to public debt issuance: debt issuance details, debt ratings and covenants for the IPDO and PFDO samples. The debt characteristics are obtained from the Mergent FISD and SDC debt issues databases. Moody's and S&P ratings are converted to a numerical scale with S&P's AAA (Moody's Aaa) corresponding to 1 and CCC- (Caa2) corresponding to 19 (i.e., greater number indicates higher credit risk). The amount raised to prior debt ratio is the size of the deal scaled by the size of the previously outstanding debt. The rated indicator variable is 1 if the debt deal is rated by a credit rating agency and 0 otherwise. The investment grade indicator is 1 if the deal is rated BBB- (Baa3) or above. Gross spread is the difference between the price that issuer receives for its securities and the price that investors pay for them. Selling concession is the portion of the gross spread paid to other securities dealers in the offering syndicate for reselling the issue for the underwriter. Reallowance is the portion of selling concession that an underwriter foregoes if the issue is sold to another securities firm which is not a member of the underwriting syndicate. The secured debt indicator takes the value 1 if the security is secured and 0 otherwise. **Panel C** reports coefficients from GLS regressions with year fixed effects, where the dependent variable is the offer yield of the corresponding issue. "First issuance of public debt" is an indicator variable taking the value 1 if the issue is the first public debt issue by the IPDO firm and 0 if it is the first public debt issue by the PFDO firm. The all covenants index is a sum of 7 distinct covenant groups (payment, borrowing, asset and investment, stock issuance, default, antitakeover and profit). Covenant indexes and definitions are constructed similar to Mansi et al. (2011). Standard errors are clustered by year. P-values are reported in parentheses.

Panel A. Univariate firm characteristics

Sample Firm Characteristics	IPDO sample	PFDO sample	Difference	Wilcoxon test (p-value)	Other public debt issues
A. Ownership					
Sponsor-Backed	0.48	0.08	0.40	0.00	
B. Financial statement informativeness					
Age (in years)	11	15	-4	0.00	
Assets	287.23	398.04	-110.81	0.94	
Sales	357.44	290.01	67.43	0.18	
Operating Cash Flow/Capex	-0.05	0.28	-0.33	0.00	
C. Operating performance					
ROA	0.00	0.00	0.00	0.01	
Operating ROA	0.01	0.00	0.01	0.11	
D. Growth opportunities					
R&D/Assets	-0.012	0.00	-0.01	0.00	
PPE/Assets	0.004	0.000	0.00	0.53	
E. Leverage					
Debt/EBITDA	1.96	1.00	0.95	0.00	
Interest Coverage	0.27	-0.01	0.28	0.00	
Debt/Book Equity ratio	1.67	0.23	1.44	0.00	
Long-term Debt/Net Working Capital	1.85	0.71	1.14	0.00	
F. Liquidity					
Current ratio	-0.14	0.00	-0.14	0.00	
Quick Ratio	-0.13	0.00	-0.14	0.00	
Cash Ratio	-0.05	0.01	-0.07	0.00	

Panel B. Univariate deal characteristics

Sample debt characteristics	IPDO sample	PFDO sample	Difference	Wilcoxon test for medians
A. Debt details				
Size of debt offering, \$ mil.	120.00	125.00	-5.00	0.18
Offer Yield	11.00	7.06	3.94	0.00
Amount raised to Prior Debt Ratio	1.08	1.56	-0.48	0.00
Years to maturity	10.00	10.00	0.00	0.04
Coupon	11.13	7.00	4.13	0.00
Gross Spread	30.00	25.00	5.00	0.22
Selling Concession	2.50	5.00	-2.50	0.00
Reallowance	1.25	2.50	-1.25	0.00
B. Debt ratings				
Rated indicator variable	0.80	0.70	0.10	0.00
Investment grade rated indicator variable	0.06	0.22	-0.16	0.00
Moody's median rating (higher means lower rating)	14.62	12.16	2.46	0.00
S&P median rating (higher means lower rating)	13.83	11.99	1.83	0.00
C. Covenants and other restrictions				
Secured debt indicator variable	0.09	0.01	0.08	0.00
Payment Restrictions Index	1.05	0.46	0.59	0.00
Borrowing Restrictions index	2.19	1.08	1.10	0.00
Asset and Investment Restriction Index	1.52	0.98	0.54	0.00
Stock Issuance Restrictions Index	0.61	0.25	0.36	0.00
Default Restrictions Index	0.51	0.48	0.03	0.37
Antitakeover Restrictions Index	1.05	1.05	0.00	0.98
Profit/Net-Worth Restrictions Index	0.08	0.06	0.02	0.27

Panel C. GLS regression of offer yield with year fixed effects

Variable	(1)	(2)	(3)	(4)	(5)	(6)
Deal characteristics						
First issuance of public debt	2.59 (0.00)	2.11 (0.00)	1.31 (0.00)	0.92 (0.00)	0.94 (0.00)	0.75 (0.00)
Log Size of debt offering	.	-0.17 (0.37)	-0.10 (0.65)	-0.19 (0.43)	-0.39 (0.24)	-0.32 (0.33)
Secured debt indicator variable		0.94 (0.22)	-0.06 (0.94)	0.33 (0.70)	0.81 (0.41)	0.49 (0.63)
Rated Indicator variable		1.92 (0.00)	0.79 (0.20)	0.11 (0.64)	0.13 (0.66)	0.06 (0.82)
Investment grade rated indicator variable		-1.70 (0.00)	-0.20 (0.66)	0.53 (0.19)	0.70 (0.16)	0.56 (0.21)
Years to maturity		.	-0.96 (0.01)	-0.51 (0.29)	-0.25 (0.57)	-0.13 (0.76)
Amount raised to Prior debt ratio			0.03 (0.65)	0.07 (0.41)	0.08 (0.33)	0.10 (0.13)
Firm characteristics						
Sponsor Backed				0.29 (0.27)	0.22 (0.37)	0.03 (0.89)
OCF/Capex				-0.02 (0.44)	-0.02 (0.40)	-0.02 (0.30)
(OCF/Capex) × Sponsor Backed				0.02 (0.40)	0.02 (0.38)	0.02 (0.28)
Log Assets (×100)				.	-0.15 (0.77)	-0.31 (0.62)
Log age (×100)					0.070 (0.72)	0.045 (0.79)
ROA					-1.06 (0.10)	-1.20 (0.10)
Debt/Assets					0.18 (0.54)	0.14 (0.57)
PPE/Assets					0.96 (0.21)	0.89 (0.26)
Covenant characteristics						
All Covenants Index			0.29 (0.00)	0.35 (0.00)	0.35 (0.00)	
Payment Restrictions Index						1.03 (0.00)
Borrowing Restrictions index						0.24 (0.02)
Asset and Investment Restriction Index						0.56 (0.04)
Stock Issuance Restrictions Index						0.22

						(0.43)
Default Restrictions Index						-0.15
						(0.73)
Antitakeover Restrictions Index						-0.74
						(0.05)
Profit/Net-Worth Restrictions Index						0.25
						(0.68)
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Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Adjusted R ²	0.14	0.21	0.35	0.36	0.36	0.39
N	1,083	1,079	689	486	352	352
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Table O-2. Debt terms received on subsequent debt issues by IPDO firms

The table analyzes terms received by the IPDO firms in their subsequent public debt issues. We report data for subsequent issues that are more than 30 days after the date of the IPDO. **Panel A** reports univariate results (medians, except for binary indicator variables which are means). Higher values of Moody's & S&P ratings mean lower ratings. **Panel B** reports coefficients from multivariate regressions, where the dependent variable is the offer yield of the corresponding debt issue. The indicator variable for first issuance of public debt is 1 if it is the first issue of public debt and 0 if it is a subsequent issue by the IPDO firm. The size of debt offering and other debt characteristics are obtained from the Mergent FISD and SDC debt issues databases and are defined as in Table 5. Firm characteristics are industry-adjusted and defined as in table 3. Macroeconomic controls include cumulative market returns, average CPI, average credit and term spreads, average aggregate market dividend yield, average year-on-year industrial production growth and average corporate tax rate over the period of 6 month prior to the event. Standard errors are clustered by year. P-values are reported in parentheses.

Panel A: Univariate statistics

Sample debt characteristics	Initial public debt issue by IPDO firm	Subsequent public debt issue by IPDO	Difference	Wilcoxon test (P-values)
A. Debt details				
Size of debt offering, \$ mil.	100	115	-15	0.00
Offer Yield, %	10	9.75	0.25	0.08
Deal to Prior Debt Ratio	0.64	0.32	0.32	0.00
Years to maturity	10	9	1	0.96
Coupon, %	10.13	9.56	0.57	0.01
Gross Spread	8.75	2	6.75	0.00
Selling Concession	4	2	2	0.03
Reallowance	2.5	1.25	1.25	0.13
B. Debt ratings and Financial Constraints				
Rated indicator variable	0.63	0.53	0.10	0.01
Investment grade rated indicator variable	0.16	0.10	0.06	0.04
Moody's median rating	15	15	0.00	0.90
S&P median rating	14	14	0.00	0.95
Operating Cash Flow/Capital Expenditures	0.63	0.89	-0.26	0.16
C. Covenants and other restrictions				
Secured debt indicator variable	0.10	0.15	-0.05	0.18
Payment Restrictions Index	0.77	0.79	-0.02	0.83
Borrowing Restrictions index	1.69	1.67	0.02	0.93
Asset and Investment Restriction Index	1.20	1.21	-0.01	0.92
Stock Issuance Restrictions Index	0.43	0.43	0.00	0.98
Default Restrictions Index	0.41	0.40	0.02	0.67
Antitakeover Restrictions Index	0.85	0.77	0.08	0.27
Profit/Net-Worth Restrictions Index	0.07	0.05	0.02	0.31

Panel B. GLS regression of offer yield with macroeconomic controls

Variable	(1)	(2)	(3)	(4)	(5)
Deal characteristics					
First issuance of public debt	0.88 (0.01)	0.01 (0.98)	0.18 (0.70)	-0.12 (0.84)	-0.15 (0.80)
Size of debt offering, \$ mil.		-0.23 (0.30)	-0.14 (0.69)	-0.55 (0.03)	-0.58 (0.02)
Secured debt indicator variable		-0.56 (0.40)	-0.59 (0.43)	-0.34 (0.61)	-0.24 (0.72)
Investment grade rated indicator variable		-2.91 (0.00)	-2.78 (0.00)	-2.50 (0.00)	-2.51 (0.00)
Years to maturity		0.04 (0.92)	-0.02 (0.97)	0.28 (0.48)	0.43 (0.28)
Amount raised to Prior debt ratio		0.35 (0.01)	0.33 (0.00)	0.19 (0.20)	0.19 (0.23)
Firm characteristics					
Sponsor Backed			0.47 (0.10)	0.33 (0.08)	0.32 (0.13)
Operating Cash Flow/Capex			0.00 (0.70)	-0.01 (0.56)	-0.01 (0.58)
(Operating Cash Flow/Capex)×Sponsor Backed			0.00 (0.90)	0.02 (0.27)	0.02 (0.32)
Log Age				0.01 (0.21)	0.01 (0.19)
Log Assets				-0.48 (0.16)	-0.53 (0.12)
ROA				-0.71 (0.60)	-0.33 (0.80)
Current Ratio				0.17 (0.18)	0.15 (0.20)
PPE/Assets				-0.63 (0.42)	-0.49 (0.52)
Debt/Assets				0.11 (0.77)	0.08 (0.84)
Covenant characteristics					
All Covenants Index		0.02 (0.72)	0.04 (0.48)	0.04 (0.41)	
Payment Restrictions Index					-0.13 (0.70)
Borrowing Restrictions Index					-0.06 (0.69)
Asset and Investment Restrictions Index					0.17 (0.67)

Stock Issuance Restrictions Index					-0.01 (0.92)
Default Restrictions Index					-0.51 (0.34)
Antitakeover Restrictions Index					0.51 (0.49)
Profit/Net Worth Restrictions Index					0.48 (0.28)
Macro variables controls	Yes	Yes	Yes	Yes	Yes
Observations	595	359	266	209	209
Adjusted R ²	0.078	0.144	0.233	0.308	0.319