Replication instructions: "Product Market Competition and Convertible Debt Financing"

Cheng Lei, Evgeny Lyandres, Chris Veld, and Ying Xia

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Data Constructions

The input datasets utilizing external data are as follows:

1. Center for Research in Security Prices – Compustat merged (CCM) database, Mergent Fixed Investment Securities Database (Mergent FISD), and Capital IQ were accessed via Wharton Research Data Services (WRDS).
2. Hoberg and Phillips's data library was accessed via: https://hobergphillips.tuck.dartmouth.edu/.
3. Peter K. Schott's website was accessed via: https://sompks4.github.io/sub_data.html.
4. Kogan, Pananikolaou, Seru, and Stoffman's (2017) website was accessed via: https://github.com/KPSS2017/Technological-Innovation-Resource-Allocation-and-Growth-Extended-Data.

Please see the data section of the paper for source of raw data input. Raw data input was used to construct the datasets for all empirical analyses in the paper.

Replication Package

The replication package includes the following:

Stata do files:

- Table_1.do
- Tables_2_to_4.do
- Table_5.do
- Tables_6_to_8.do
- Tables_9_and_10.do

Stata datasets:

- Baseline_Firm_Year_Sample.dta: the firm-year sample
- Average_Convertible_Full_Sample.dta: the sample includes the annual average of four convertible debt variables for Fluidity quintiles, where the average is calculated using the full firm-year sample
- Average_Convertible_User_Sample.dta: the sample includes the annual average of Convertible/Assets and the annual average of Convertible/Debt for Fluidity quintiles, where the average is calculated using the subsample of firms with outstanding convertible debt

- Convertible_Straight_Issue_Sample.dta: the sample includes all issues of convertible bonds and straight corporate bonds
- Stacked_DiD_Sample.dta: the sample includes all cohorts of large tariff reductions
- Convertible_Characteristics_Sample.dta: the sample includes all issues of convertible bonds

Five do files are used to generate all results in the paper. In all do files, please re-define the "path" to use the corresponding Stata datasets and to store all results before running the program. The following table shows the Stata datasets used in each do file:

Stata do files to replicate tables	Stata datasets
Table_1.do	Baseline_Firm_Year_Sample.dta, Average_Convertible_Full_Sample.dta, Average_Convertible_User_Sample.dta
Tables_2_to_4.do	Baseline_Firm_Year_Sample.dta, Convertible_Straight_Issue_Sample.dta
Table_5.do	Stacked_DiD_Sample.dta
Tables_6_to_8.do	Baseline_Firm_Year_Sample.dta
Tables_9_and_10.do	Convertible_Characteristics_Sample.dta

Variable dictionary

The following table shows the names of variables in all Stata datasets.

Variables	**Names in datasets**
Convertible User	convo
Issuance	covdum
Convertible/Assets	fconv1
Convertible/Debt	fconv2
Fluidity	fld
Size	size
Ln(Age)	lage
Cash	cash
Dividend	divd
Share Repurchase	rep
Cash Flow	cf
Tangibility	tangib
Capex	capex
Market-to-Book	mb
R&D	rda
Stock Return Volatility	Vol_12
$\Delta fluidity_{(t-2,\, t-1)}$	cfld
$\Delta fluidity_{(t-3,\, t-1)}$	lcfld
$\Delta fluidity_{(t-4,\, t-1)}$	llcfld
$\Delta Size_{(t-2,\, t-1)}$	csize
$\Delta Cash_{(t-2,\, t-1)}$	ccash
$\Delta Dividend_{(t-2,\, t-1)}$	cdivy
$\Delta Share\ Repurchase_{(t-2,\, t-1)}$	crep

Variables	**Names in datasets**
ΔCash Flow$_{(t-2,\ t-1)}$	ccf
ΔTangibility$_{(t-2,\ t-1)}$	ctangib
ΔCapex$_{(t-2,\ t-1)}$	ccapex
ΔMarket-to-Book$_{(t-2,\ t-1)}$	cmb
ΔR&D$_{(t-2,\ t-1)}$	crda
ΔStock Return Volatility$_{(t-2,\ t-1)}$	cvol_12
Convertible V.S. Straight	csdum
Sales Growth	fsgr
Industry-adjusted Sales Growth	fadjmdsgr_sic3
Treat	treat
Post	post
Pre	time2
Post-Reduction User	gpostuserp
Post-Reduction Initiator	postinip
Low Relative Credit Rating	rankdcd1
High Relative KZ	rankdkz
High Relative Net Leverage	hrnl
Low Industry Patent Citations	rankrncites1
Ln(Sales)	sales
Length	length
Delta	delta1
Proceeds/MV	proceedsmv1
Amihud	amihud
Run-up	runup1
R144	r144
R415	r415
Investment-Grade	ig
Below Investment-Grade	blig
Ln(Maturity)	lnm
Poison Put	ppdum
Noncallable	calld2
Firm indicator	gvkey
Hoberg-Phillips FIC industry indicator	icode50
Three-digit SIC industry indicator	sic3ind
Lagged year indicator: t − 1	fyear
Current year indicator: t	cyear
Cohort indicator	event
Unrated firm indicator	unrate
Fluidity quintile indicator	frank
High-minus-low indicator	dif, fdif
Annual average of Convertible User for each Fluidity quintile	convom
Annua average of Issuance for each Fluidity quintile	covm
Annual average of Convertible/Assets for each Fluidity quintile	fconv1m
Annual average of Convertible/Debt for each Fluidity quintile	fconv2m