Replication instructions: "Inflexibility and Corporate Credit Spreads"

Zhe An, Abe de Jong, Ying Xia, Zhaofeng Xu

This version: May 5, 2025

Data Constructions

The input datasets utilizing external data are as follows:

1. Trade Reporting and Compliance Engine database (TRACE), Mergent Fixed Investment Securities Database (Mergent FISD), Compustat, Center for Research in Security Prices (CRSP) and Capital IQ were accessed via Wharton Research Data Services (WRDS).
2. Treasury bond yield was accessed via: https://www.federalreserve.gov/releases/H15/default.htm.
3. Kim and Kung's (2017) website was accessed via: https://sites.google.com/view/hyunseobkim/asset-redeployability.

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_to_2.do
- Table_3.do
- Table_4_to_10.do
- Figure_1_to_3.do

Stata datasets:

- Baseline_Sample.dta: the baseline bond quarter sample.
- RDD_sample.dta: the sample includes the percentage of votes in an election favoring unionization, and post-election inflexibility and credit spread measures in a future two-year.
- Additional_test_sample.dta: the sample includes the high book-to-market dummy, the book-to-market ratio terciles, industry downturn dummy, industry downturn terciles, cash flow volatilities in past 12 quarters, cash flow volatilities in past 20 quarters, Z socre, ZM socre, expected default frequency, bond rating, time to maturity, issuance maturity operating leverage, operating leverage volatility, cost stickiness, asset redeployability, and investment irreversibility.

- Alternative_measure_sample.dta: the sample includes high inflexibility dummy, inflexibility requiring a minimum of 20 quarters of data to be available over the past 80 quarters, and inflexibility calculated using all available data.
- Non_overlap_sample.dta: the sample includes inflexibility calculated using non-overlapping data from the previous eight quarters.
- Issuance_sample.dta: the sample includes issuance credit spreads.

Four 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_to_2.do	Baseline_Sample.dta
Table_3.do	RDD_sample.dta
Table_4_to_10.do	Additional_test_sample.dta, Alternative_measure_sample.dta, Non_overlap_sample.dta
Figure_1_to_3.do	RDD_sample.dta

Variable dictionary

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

Variables	**Names in datasets**
Credit spread	credit_spread
Inflexibility	inflex20
Long-term debt to assets	long_term_debt
Operating income to sales	operating
Total debt to capital	tot_debt
Pretax coverage D1, D2, & D3	int_cov1, int_cov2, int_cov3
Stock return	ret_bps
Idiosyncratic risk	ret_var_percent
Credit rating	c_rating
5% Value-at-risk	neg_VaR_5_percent
Illiquidity	illiq
Ex-post Inflexibility2	future2_inflex
Ex-post Credit Spread2	future2_yield
Percentage of favorable votes	m_vote_rate_decimal
High BM	high_bm
BM Top 1/3	dbm3
BM Middle 1/3	dbm2
Ind. Downturn	ot_ind_down
Ind. Downturn Bottom 1/3	dindsales1
Ind. Downturn Middle 1/3	dindsales2
CF volatility1	std_cf_perc12
CF volatility2	std_cf_perc20
Z score	altman_z

Variables	**Names in datasets**
ZM score	zm
EDF	edf
Bond rating	vari_rating
Time to maturity	time_to_mtu
Issuance maturity	issuance_maturity
Operating leverage	qfc
Operating leverage volatility	std_qfc
Cost stickiness	neg_cost_sticky
Asset redeployability	redeploy
Irreversibility	irreversibility
High inflexibility	high_inflex
Inflexibility min20q	inflex5_20
Inflexibility all	inflex_infi
Non-overlapping inflexibility	non_overlap_inflex
Issuance credit spread	issue_spread