

Corporate Bond Characteristics Calculation Documentation

US Equity Characteristics Data

June 24, 2026

Abstract

This document records the public-release metric definitions for the corporate bond characteristic panel. The current GitHub repository does not contain the private corporate bond construction code, so this document is schema-checked against `characteristics_raw.feather` and describes the released variables rather than an audited source-code formula trace.

1 Notation

Bond is indexed by i and calendar month by t . Measures are computed from the cleaned monthly corporate bond panel unless stated otherwise.

Table 1: Corporate Bond Characteristics Metric Table

Characteristic	Metric definition	Category
clean_price	Clean bond price used in monthly aggregation.	Issue terms
size	Release-level issue size variable.	Issue terms
rating	Merged rating value after rating data processing.	Issue terms
ytm	Monthly bond yield-to-maturity measure.	Issue terms
duration	Monthly bond duration measure.	Issue terms
benchmark_duration	Duration of the matched benchmark Treasury or fixed-income benchmark.	Issue terms
age	Elapsed time since issuance or first valid record.	Issue terms
time2maturity	Time from the monthly observation date to maturity.	Issue terms
Amihud	Absolute return scaled by trading activity.	Trading activity
std_Amihud	Standardized version of Amihud across the bond panel.	Trading activity
Roll	Roll spread estimate from serial covariance in price changes.	Trading activity
BPW	TRACE price dispersion or width-based liquidity metric.	Trading activity
TC_IQR	Interquartile range of transaction-cost estimates.	Trading activity
P_HL	Monthly high-low price range liquidity proxy.	Trading activity
PI_Roll	Price-impact variant based on the Roll spread estimator.	Trading activity
PI_HL	Price-impact variant based on high-low price information.	Trading activity
barQ	Monthly average quote/quantity metric from TRACE records.	Trading activity
std_barQ_1mom	Standardized one-month change in barQ.	Trading activity
Range_daily	Within-month daily price range summary.	Trading activity
trades	Monthly count of valid TRACE transactions.	Trading activity
P_Zeros	Fraction or probability proxy for zero trading activity.	Trading activity
P_FHT	Fong-Holden-Trzcinka style liquidity estimate.	Trading activity
PI_FHT	Price-impact variant of the FHT liquidity estimate.	Trading activity
volume	Monthly valid TRACE trading volume.	Trading activity
turnover	Trading volume scaled by size or amount outstanding.	Trading activity
range_monthly	Monthly high-low or range-based price variation.	Trading activity
monthly_return	Cleaned monthly bond return.	Return risk
monthly_return_winsorized	Monthly bond return after winsorization.	Return risk
variance	Within-window variance of bond returns.	Return risk

Characteristic	Metric definition	Category
skewness	Within-window skewness of bond returns.	Return risk
kurtosis	Within-window kurtosis of bond returns.	Return risk
min_daily	Worst valid daily return within the month.	Return risk
max_daily	Best valid daily return within the month.	Return risk
VaR_5%	Lower-tail five percent value-at-risk estimate.	Return risk
VaR_10%	Lower-tail ten percent value-at-risk estimate.	Return risk
VaR_5%ES	Average loss conditional on the five percent lower tail.	Return risk
VaR_10%ES	Average loss conditional on the ten percent lower tail.	Return risk
COSKEW	Coskewness with the market or benchmark factor.	Return risk
ISKEW	Skewness of residual or idiosyncratic bond returns.	Return risk
1-month_mom	Lagged one-month bond return signal.	Momentum
6-month_mom	Intermediate-horizon lagged bond return signal.	Momentum
12-month_mom	Longer-horizon lagged bond return signal.	Momentum
LTR_mom	Long-term return continuation/reversal signal.	Momentum
market_beta	Bond return beta to the market factor.	Market exposure
market_residual_variance	Residual variance from the market factor model.	Market exposure
term_beta	Bond return beta to the term factor.	Market exposure
default_beta	Bond return beta to the default factor.	Market exposure
term_default_residual_variance	Residual variance from the term/default factor model.	Market exposure
drf_beta	Bond return beta to the DRF factor.	Market exposure
crf_beta	Bond return beta to the CRF factor.	Market exposure
lrf_beta	Bond return beta to the LRF factor.	Market exposure
liq_beta	Bond return beta to the liquidity factor.	Market exposure
vix_beta	Bond return beta to volatility innovations.	Market exposure
unc_beta	Bond return beta to macro uncertainty innovations.	Market exposure