Stocks-specific features

Feature	Acronym	Reference
Firm age	age	Jiang, Lee, and Zhang (2005)
Liquidity of book assets	aliq_at	Ortiz-Molina and Phillips (2014)
Liquidity of market assets	aliq_mat	Ortiz-Molina and Phillips (2014)
Amihud Measure	ami_126d	Amihud (2002)
Book leverage	at_be	Fama and French (1992)
Asset Growth	at_gr1	Cooper, Gulen, and Schill (2008)
Assets-to-market	at_me	Fama and French (1992)
Capital turnover	at_turnover	Haugen and Baker (1996)
Change in common equity	be_gr1a	Richardson et al. (2005)
Book-to-market equity	be_me	Rosenberg, Reid, and Lanstein (1985)
Market Beta	beta_60m	Fama and MacBeth (1973)
Dimson beta	beta_dimson_21d	Dimson (1979)
Frazzini-Pedersen market beta	betabab_1260d	Frazzini and Pedersen (2014)
Downside beta	betadown_252d	Ang, Chen, and Xing (2006)
Book-to-market enterprise value	bev_mev	Penman, Richardson, and Tuna (2007)
The high-low bid-ask spread	bidaskhl_21d	Corwin and Schultz (2012)
Abnormal corporate investment	capex_abn	Titman, Wei, and Xie (2004)
CAPEX growth (1 year)	capx_gr1	Xie (2001)
CAPEX growth (2 years)	capx_gr2	Anderson and Garcia-Feijoo (2006)
CAPEX growth (3 years)	capx_gr3	Anderson and Garcia-Feijoo (2006)
Cash-to-assets	cash_at	Palazzo (2012)
Net stock issues	dcshso_12m	Pontiff and Woodgate (2008)
Change in current operating assets	coa_gr1a	Richardson et al. (2005)
Change in current operating liabilities	col_gr1a	Richardson et al. (2005)
Cash-based operating profits-to-book assets	cop_at	Ball et al. (2016)
Market correlation	corr_1260d	Asness, Frazzini, Gormsen, Pedersen (2022)

Coskewness	coskew_21d	Harvey and Siddique (2000)
Change in current operating working capital	cowc_gr1a	Richardson et al. (2005)
Net debt issuance	dbnetis_at	Bradshaw, Richardson, and Sloan (2006)
Growth in book debt (3 years)	debt_gr3	Lyandres, Sun, and Zhang (2008)
Debt-to-market	debt_me	Bhandari (1988)
Change gross margin minus change sales	dgp_dsale	Abarbanell and Bushee (1998)
Dividend yield	div12m_me	Litzenberger and Ramaswamy (1979)
Dollar trading volume	dolvol_126d	Brennan, Chordia, and Subrahmanyam (1998)
Coefficient of variation for dollar trading volume	dolvol_var_126d	Chordia, Subrahmanyam, and Anshuman (2001)
Change sales minus change inventory	dsale_dinv	Abarbanell and Bushee (1998)
Change sales minus change receivables	dsale_drec	Abarbanell and Bushee (1998)
Change sales minus change SG&A	dsale_dsga	Abarbanell and Bushee (1998)
Earnings variability	earnings_variability	Francis et al. (2004)
Return on net operating assets	ebit_bev	Soliman (2008)
Profit margin	ebit_sale	Soliman (2008)
EBITDA-to-market enterprise value	ebitda_mev	Loughran and Wellman (2011)
Hiring rate	emp_gr1	Belo, Lin, and Bazdresch (2014)
Equity duration	eq_dur	Dechow, Sloan, and Soliman (2004)
Net equity issuance	eqnetis_at	Bradshaw, Richardson, and Sloan (2006)
Net equity payout	eqnpo_12m	Daniel and Titman (2006)
Net payout yield	eqnpo_me	Boudoukh et al. (2007)
Payout yield	eqpo_me	Boudoukh et al. (2007)
Piotroski F-score	f_score	Piotroski (2000)
Free cash flow-to-price	fcf_me	Lakonishok, Shleifer, and Vishny (1994)
Change in financial liabilities	fnl_gr1a	Richardson et al. (2005)
Gross profits-to-assets	gp_at	Novy-Marx (2013)
Gross profits-to-lagged assets	gp_atl1	Novy-Marx (2013)
Intrinsic value-to-market	intrinsic_value	Frankel and Lee (1998)
Inventory growth	inv_gr1	Belo and Lin (2011)
Inventory change	inv_gr1a	Thomas and Zhang (2002)

Idiosyncratic skewness from the CAPM	iskew_capm_21d	Bali, Engle, and Murray (2016)
Idiosyncratic skewness from the Fama-French 3-factor model	iskew_ff3_21d	Bali, Engle, and Murray (2016)
Idiosyncratic skewness from the q-factor model	iskew_hxz4_21d	Ali, Hwang, and Trombley (2003)
Idiosyncratic volatility from the CAPM (21 days)	ivol_capm_21d	Ang et al. (2006)
Idiosyncratic volatility from the CAPM (252 days)	ivol_capm_252d	Ang et al. (2006)
Idiosyncratic volatility from the Fama-French 3-factor model	ivol_ff3_21d	Ang et al. (2006)
Idiosyncratic volatility from the q-factor model	ivol_hxz4_21d	Ali, Hwang, and Trombley (2003)
Kaplan-Zingales index	kz_index	Lamont, Polk, and Saa-Requejo (2001)
Change in long-term net operating assets	lnoa_gr1a	Fairfield, Whisenant, and Yohn (2003)
Change in long-term investments	lti_gr1a	Richardson et al. (2005)
Market Equity	market_equity	Banz (1981)
Mispricing factor: Management	mispricing_mgmt	Stambaugh and Yuan (2016)
Mispricing factor: Performance	mispricing_perf	Stambaugh and Yuan (2016)
Change in noncurrent operating assets	ncoa_gr1a	Richardson et al. (2005)
Change in noncurrent operating liabilities	ncol_gr1a	Richardson et al. (2005)
Net debt-to-price	netdebt_me	Penman, Richardson, and Tuna (2007)
Net total issuance	netis_at	Bradshaw, Richardson, and Sloan (2006)
Change in net financial assets	nfna_gr1a	Richardson et al. (2005)
Earnings persistence	ni_ar1	Francis et al. (2004)
Return on equity	ni_be	Haugen and Baker (1996)
Number of consecutive quarters with earnings increases	ni_inc8q	Barth, Elliott, and Finn (1999)
Earnings volatility	ni_ivol	Francis et al. (2004)
Earnings-to-price	ni_me	Basu (1983)
Quarterly return on assets	niq_at	Balakrishnan, Bartov, and Faurel (2010)
Quarterly return on equity	niq_be	Hou, Xue, and Zhang (2015)
Change in quarterly return on equity	niq_be_chg1	Foster, Olsen, and Shevlin (1984)
Standardized earnings surprise	niq_su	Richardson et al. (2005)
Change in net noncurrent operating assets	nncoa_gr1a	Richardson et al. (2005)
Net operating assets	noa_at	Hirshleifer et al. (2004)
Change in net operating assets	noa_gr1a	Hirshleifer et al. (2004)
Ohlson O-score	o_score	Dichev (1998)
Operating accruals	oaccruals_at	Sloan (1996)

Percent operating accruals	oaccruals_ni	Hafzalla, Lundholm, and Van Winkle (2011)
Operating cash flow to assets	ocf_at	Bouchard, Krüger, Landier, and Thesmar (2019)
Change in operating cash flow to assets	ocf_at_chg1	Bouchard, Krüger, Landier, and Thesmar (2019)
Asset tangibility	tangibility	Hahn and Lee (2009)
Tax expense surprise	tax_gr1a	Thomas and Zhang (2011)
Share turnover	turnover_126d	Datar, Naik, and Radcliffe (1998)
Coefficient of variation for share turnover	turnover_var_126d	Chordia, Subrahmanyam, and Anshuman (2001)
Altman Z-score	z_score	Dichev (1998)
Number of zero trades with turnover as tiebreaker (6 months)	zero_trades_126d	Liu (2006)
Number of zero trades with turnover as tiebreaker (1 month)	zero_trades_21d	Liu (2006)
Number of zero trades with turnover as tiebreaker (12 months)	zero_trades_252d	Liu (2006)