

Mnemonic	Description
date	End date for monthly long-short return
AbnormalAccruals	Abnormal Accruals from Xie 2001
Accruals	Accruals from Sloan 1996
AccrualsBM	Book-to-market and accruals from Bartov and Kim 2004
Activism1	Takeover vulnerability from Cremers and Nair 2005
Activism2	Active shareholders from Cremers and Nair 2005
AdExp	Advertising Expense from Chan, Lakonishok and Sougiannis 2001
AgeIPO	IPO and age from Ritter 1991
AM	Total assets to market from Fama and French 1992
AnalystRevision	EPS forecast revision from Hawkins, Chamberlin, Daniel 1984
AnalystValue	Analyst Value from Frankel and Lee 1998
AnnouncementReturn	Earnings announcement return from Chan, Jegadeesh and Lakonishok 1996
AOP	Analyst Optimism from Frankel and Lee 1998
AssetGrowth	Asset growth from Cooper, Gulen and Schill 2008
Beta	CAPM beta from Fama and MacBeth 1973
BetaFP	Frazzini-Pedersen Beta from Frazzini and Pedersen 2014
BetaLiquidityPS	Pastor-Stambaugh liquidity beta from Pastor and Stambaugh 2003
BetaTailRisk	Tail risk beta from Kelly and Jiang 2014
betaVIX	Systematic volatility from Ang et al. 2006
BidAskSpread	Bid-ask spread from Amihud and Mendelsohn 1986
BM	Book to market using most recent ME from Rosenberg, Reid, and Lanstein 1985
BMdec	Book to market using December ME from Fama and French 1992
BookLeverage	Book leverage (annual) from Fama and French 1992
BPEBM	Leverage component of BM from Penman, Richardson and Tuna 2007
BrandInvest	Brand capital investment from Belo, Lin and Vitorino 2014
Cash	Cash to assets from Palazzo 2012
CashProd	Cash Productivity from Chandrashekar and Rao 2009
CBOperProf	Cash-based operating profitability from Ball et al. 2016
CF	Cash flow to market from Lakonishok, Shleifer, Vishny 1994
cfp	Operating Cash flows to price from Desai, Rajgopal, Venkatachalam 2004
ChangeInRecommendation	Change in recommendation from Jegadeesh et al. 2004
ChAssetTurnover	Change in Asset Turnover from Soliman 2008
ChEQ	Growth in book equity from Lockwood and Prombutr 2010
ChForecastAccrual	Change in Forecast and Accrual from Barth and Hutton 2004
ChInv	Inventory Growth from Thomas and Zhang 2002
ChInvIA	Change in capital inv (ind adj) from Abarbanell and Bushee 1998
ChNAnalyst	Decline in Analyst Coverage from Scherbina 2008
ChNNCOA	Change in Net Noncurrent Op Assets from Soliman 2008
ChNWC	Change in Net Working Capital from Soliman 2008
ChTax	Change in Taxes from Thomas and Zhang 2011

CitationsRD	Citations to RD expenses from Hirschleifer, Hsu and Li 2013
CompEquIss	Composite equity issuance from Daniel and Titman 2006
CompositeDebtIssuance	Composite debt issuance from Lyandres, Sun and Zhang 2008
ConsRecomm	Consensus Recommendation from Barber et al. 2002
ConvDebt	Convertible debt indicator from Valta 2016
CoskewACX	Coskewness using daily returns from Ang, Chen and Xing 2006
Coskewness	Coskewness from Harvey and Siddique 2000
CredRatDG	Credit Rating Downgrade from Dichev and Piotroski 2001
CustomerMomentum	Customer momentum from Cohen and Frazzini 2008
DebtIssuance	Debt Issuance from Spiess and Affleck-Graves 1999
DelBreadth	Breadth of ownership from Chen, Hong and Stein 2002
DelCOA	Change in current operating assets from Richardson et al. 2005
DelCOL	Change in current operating liabilities from Richardson et al. 2005
DelDRC	Deferred Revenue from Prakash and Sinha 2012
DelEqu	Change in equity to assets from Richardson et al. 2005
DelFINL	Change in financial liabilities from Richardson et al. 2005
DelLTI	Change in long-term investment from Richardson et al. 2005
DelNetFin	Change in net financial assets from Richardson et al. 2005
DivInit	Dividend Initiation from Michaely, Thaler and Womack 1995
DivOmit	Dividend Omission from Michaely, Thaler and Womack 1995
DivSeason	Dividend seasonality from Hartzmark and Salomon 2013
DivYieldST	Predicted div yield next month from Litzenberger and Ramaswamy 1979
dNoa	change in net operating assets from Hirshleifer, Hou, Teoh, Zhang 2004
DoIVol	Past trading volume from Brennan, Chordia, Subra 1998
DownRecomm	Down forecast EPS from Barber et al. 2002
EarningsConsistency	Earnings consistency from Alwathainani 2009
EarningsForecastDisparity	Long-vs-short EPS forecasts from Da and Warachka 2011
EarningsStreak	Earnings surprise streak from Loh and Warachka 2012
EarningsSurprise	Earnings Surprise from Foster, Olsen and Shevlin 1984
EarnSupBig	Earnings surprise of big firms from Hou 2007
EBM	Enterprise component of BM from Penman, Richardson and Tuna 2007
EntMult	Enterprise Multiple from Loughran and Wellman 2011
EP	Earnings-to-Price Ratio from Basu 1977
EquityDuration	Equity Duration from Dechow, Sloan and Soliman 2004
ExchSwitch	Exchange Switch from Dharan and Ikenberry 1995
ExclExp	Excluded Expenses from Doyle, Lundholm and Soliman 2003
FEPS	Analyst earnings per share from Cen, Wei, and Zhang 2006
fgr5yrLag	Long-term EPS forecast from La Porta 1996
FirmAge	Firm age based on CRSP from Barry and Brown 1984
FirmAgeMom	Firm Age - Momentum from Zhang 2004
ForecastDispersion	EPS Forecast Dispersion from Diether, Malloy and Scherbina 2002

FR	Pension Funding Status from Franzoni and Marin 2006
Frontier	Efficient frontier index from Nguyen and Swanson 2009
Governance	Governance Index from Gompers, Ishii and Metrick 2003
GP	gross profits / total assets from Novy-Marx 2013
GrAdExp	Growth in advertising expenses from Lou 2014
grcapx	Change in capex (two years) from Anderson and Garcia-Feijoo 2006
grcapx3y	Change in capex (three years) from Anderson and Garcia-Feijoo 2006
GrLTNOA	Growth in long term operating assets from Fairfield, Whisenant and Yohn 2003
GrSaleToGrInv	Sales growth over inventory growth from Abarbanell and Bushee 1998
GrSaleToGrOverhead	Sales growth over overhead growth from Abarbanell and Bushee 1998
Herf	Industry concentration (sales) from Hou and Robinson 2006
HerfAsset	Industry concentration (assets) from Hou and Robinson 2006
HerfBE	Industry concentration (equity) from Hou and Robinson 2006
High52	52 week high from George and Hwang 2004
hire	Employment growth from Bazdresch, Belo and Lin 2014
IdioRisk	Idiosyncratic risk from Ang et al. 2006
IdioVol3F	Idiosyncratic risk (3 factor) from Ang et al. 2006
IdioVolAHT	Idiosyncratic risk (AHT) from Ali, Hwang, and Trombley 2003
Illiquidity	Amihud's illiquidity from Amihud 2002
IndIPO	Initial Public Offerings from Ritter 1991
IndMom	Industry Momentum from Grinblatt and Moskowitz 1999
IndRetBig	Industry return of big firms from Hou 2007
IntanBM	Intangible return using BM from Daniel and Titman 2006
IntanCFP	Intangible return using CFtoP from Daniel and Titman 2006
IntanEP	Intangible return using EP from Daniel and Titman 2006
IntanSP	Intangible return using Sale2P from Daniel and Titman 2006
IntMom	Intermediate Momentum from Novy-Marx 2012
Investment	Investment to revenue from Titman, Wei and Xie 2004
InvestPPEInv	change in ppe and inv/assets from Lyandres, Sun and Zhang 2008
InvGrowth	Inventory Growth from Belo and Lin 2012
IO_ShortInterest	Inst own among high short interest from Asquith Pathak and Ritter 2005
iomom_cust	Customers momentum from Menzly and Ozbas 2010
iomom_supp	Suppliers momentum from Menzly and Ozbas 2010
Leverage	Market leverage from Bhandari 1988
LRreversal	Long-run reversal from De Bondt and Thaler 1985
MaxRet	Maximum return over month from Bali, Cakici, and Whitelaw 2010
MeanRankRevGrowth	Revenue Growth Rank from Lakonishok, Shleifer, Vishny 1994
Mom12m	Momentum (12 month) from Jegadeesh and Titman 1993
Mom12mOffSeason	Momentum without the seasonal part from Heston and Sadka 2008
Mom6m	Momentum (6 month) from Jegadeesh and Titman 1993
Mom6mJunk	Junk Stock Momentum from Avramov et al 2007

MomOffSeason	Off season long-term reversal from Heston and Sadka 2008
MomOffSeason06YrPlus	Off season reversal years 6 to 10 from Heston and Sadka 2008
MomOffSeason11YrPlus	Off season reversal years 11 to 15 from Heston and Sadka 2008
MomOffSeason16YrPlus	Off season reversal years 16 to 20 from Heston and Sadka 2008
MomRev	Momentum and LT Reversal from Chan and Ko 2006
MomSeason	Return seasonality years 2 to 5 from Heston and Sadka 2008
MomSeason06YrPlus	Return seasonality years 6 to 10 from Heston and Sadka 2008
MomSeason11YrPlus	Return seasonality years 11 to 15 from Heston and Sadka 2008
MomSeason16YrPlus	Return seasonality years 16 to 20 from Heston and Sadka 2008
MomSeasonShort	Return seasonality last year from Heston and Sadka 2008
MomVol	Momentum in high volume stocks from Lee and Swaminathan 2000
MRreversal	Medium-run reversal from De Bondt and Thaler 1985
MS	Mohanram G-score from Mohanram 2005
NetDebtFinance	Net debt financing from Bradshaw, Richardson, Sloan 2006
NetDebtPrice	Net debt to price from Penman, Richardson and Tuna 2007
NetEquityFinance	Net equity financing from Bradshaw, Richardson, Sloan 2006
NetPayoutYield	Net Payout Yield from Boudoukh et al. 2007
NOA	Net Operating Assets from Hirshleifer et al. 2004
NumEarnIncrease	Earnings streak length from Loh and Warachka 2012
OperProf	operating profits / book equity from Fama and French 2006
OperProfRD	Operating profitability R&D adjusted from Ball et al. 2016
OPLeverage	Operating leverage from Novy-Marx 2010
OptionVolume1	Option to stock volume from Johnson and So 2012
OptionVolume2	Option volume to average from Johnson and So 2012
OrderBacklog	Order backlog from Rajgopal, Shevlin, Venkatachalam 2003
OrderBacklogChg	Change in order backlog from Baik and Ahn 2007
OrgCap	Organizational capital from Eisfeldt and Papanikolaou 2013
OScore	O Score from Dichev 1998
PatentsRD	Patents to RD expenses from Hirschleifer, Hsu and Li 2013
PayoutYield	Payout Yield from Boudoukh et al. 2007
PctAcc	Percent Operating Accruals from Hafzalla, Lundholm, Van Winkle 2011
PctTotAcc	Percent Total Accruals from Hafzalla, Lundholm, Van Winkle 2011
PredictedFE	Predicted Analyst forecast error from Frankel and Lee 1998
Price	Price from Blume and Husic 1972
PriceDelayRsqr	Price delay r square from Hou and Moskowitz 2005
PriceDelaySlope	Price delay coeff from Hou and Moskowitz 2005
PriceDelayTstat	Price delay SE adjusted from Hou and Moskowitz 2005
ProbInformedTrading	Probability of Informed Trading from Easley, Hvidkjaer and O'Hara 2002
PS	Piotroski F-score from Piotroski 2000
RD	R&D over market cap from Chan, Lakonishok and Sougiannis 2001
RDAbility	R&D ability from Cohen, Diether and Malloy 2013

RDcap	R&D capital-to-assets from Li 2011
RDIP0	IPO and no R&D spending from Gou, Lev and Shi 2006
RDS	Real dirty surplus from Landsman et al. 2011
realestate	Real estate holdings from Tuzel 2010
ResidualMomentum	Momentum based on FF3 residuals from Blitz, Huij and Martens 2011
retConglomerate	Conglomerate return from Cohen and Lou 2012
ReturnSkew	Return skewness from Bali, Engle and Murray 2015
ReturnSkew3F	Idiosyncratic skewness (3F model) from Bali, Engle and Murray 2015
REV6	Earnings forecast revisions from Chan, Jegadeesh and Lakonishok 1996
RevenueSurprise	Revenue Surprise from Jegadeesh and Livnat 2006
RIO_Dis	Inst Own and Forecast Dispersion from Nagel 2005
RIO_MB	Inst Own and Market to Book from Nagel 2005
RIO_Turnover	Inst Own and Turnover from Nagel 2005
RIO_Volatility	Inst Own and Idio Vol from Nagel 2005
roaq	Return on assets (qtrly) from Balakrishnan, Bartov and Faurel 2010
RoE	net income / book equity from Haugen and Baker 1996
sfe	Earnings Forecast to price from Elgers, Lo and Pfeiffer 2001
ShareIss1Y	Share issuance (1 year) from Pontiff and Woodgate 2008
ShareIss5Y	Share issuance (5 year) from Daniel and Titman 2006
ShareRepurchase	Share repurchases from Ikenberry, Lakonishok, Vermaelen 1995
ShareVol	Share Volume from Datar, Naik and Radcliffe 1998
ShortInterest	Short Interest from Dechow et al. 2001
sinAlgo	Sin Stock (selection criteria) from Hong and Kacperczyk 2009
Size	Size from Banz 1981
skew1	Volatility smirk near the money from Xing, Zhang and Zhao 2010
SmileSlope	Put volatility minus call volatility from Yan 2011
SP	Sales-to-price from Barbee, Mukherji and Raines 1996
Spinoff	Spinoffs from Cusatis, Miles and Woolridge 1993
std_turn	Share turnover volatility from Chordia, Subra, Anshuman 2001
STreversal	Short term reversal from Jegadeesh 1989
SurpriseRD	Unexpected R&D increase from Eberhart, Maxwell and Siddique 2004
tang	Tangibility from Hahn and Lee 2009
Tax	Taxable income to income from Lev and Nissim 2004
TotalAccruals	Total accruals from Richardson et al. 2005
UpRecomm	Up Forecast from Barber et al. 2002
VarCF	Cash-flow to price variance from Haugen and Baker 1996
VolMkt	Volume to market equity from Haugen and Baker 1996
VolSD	Volume Variance from Chordia, Subra, Anshuman 2001
VolumeTrend	Volume Trend from Haugen and Baker 1996
XFIN	Net external financing from Bradshaw, Richardson, Sloan 2006
zerotrade	Days with zero trades from Liu 2006

zerotradeAlt1	Days with zero trades from Liu 2006
zerotradeAlt12	Days with zero trades from Liu 2006