Internet Appendix to "Value at Risk, Cross-Sectional Returns and the Role of Investor Sentiment"

This appendix provides complete results for the robustness checks discussed in the paper. Below, we briefly describe the contents of the appendix tables.

Figure IA.1 documents the 5% ES and VaR factors' time-series returns discussed in Sections 4.4 of the paper.

Table IA.1 shows value- and equal-weighted single sorting result for 5% ES discussed in Sections 4.3 of the paper.

Table IA.2 shows value- and equal-weighted single sorting result for 5% ES discussed in Sections 4.3 of the paper.

Table IA.3 shows the Fama-MacBeth regressions results for 5% ES discussed in Sections 4.3 of the paper.

Table IA.4 shows equal-weighted single sorting result for 5% ES of different sentiment regimes discussed in Sections 4.4 of the paper.

Table IA.5 shows value-weighted single sorting result for 5% VaR of different sentiment regimes discussed in Sections 4.4 of the paper.

Table IA.6 shows equal-weighted single sorting result for 5% VaR of different sentiment regimes discussed in Sections 4.4 of the paper.

Table IA.7 shows value-weighted single sorting result for 5% ES of different sentiment regimes discussed in Sections 4.4 of the paper.

Table IA.8 shows value-weighted single sorting result for 5% ES of different sentiment regimes using one standard deviation above/below its mean as the cutoff discussed in Sections 4.4 of the paper.

Table IA.9 shows equal-weighted single sorting result for 5% ES of different sentiment regimes using one standard deviation above/below its mean as the cutoff discussed in Sections 4.4 of the paper.

Table IA.10 shows value-weighted single sorting result for 5% VaR of different sentiment regimes using one standard deviation above/below its mean as the cutoff discussed in Sections

4.4 of the paper.

Table IA.11 shows equal-weighted single sorting result for 5% VaR of different sentiment regimes using one standard deviation above/below its mean as the cutoff discussed in Sections 4.4 of the paper.

Table IA.12 shows the Fama-MacBeth regressions results for 1% ES of different sentiment regimes discussed in Sections 4.5 of the paper.

Table IA.13 shows the Fama-MacBeth regressions results for 10% ES of different sentiment regimes discussed in Sections 4.5 of the paper.

Table IA.14 shows the Fama-MacBeth regressions results for 1% VaR of different sentiment regimes discussed in Sections 4.5 of the paper.

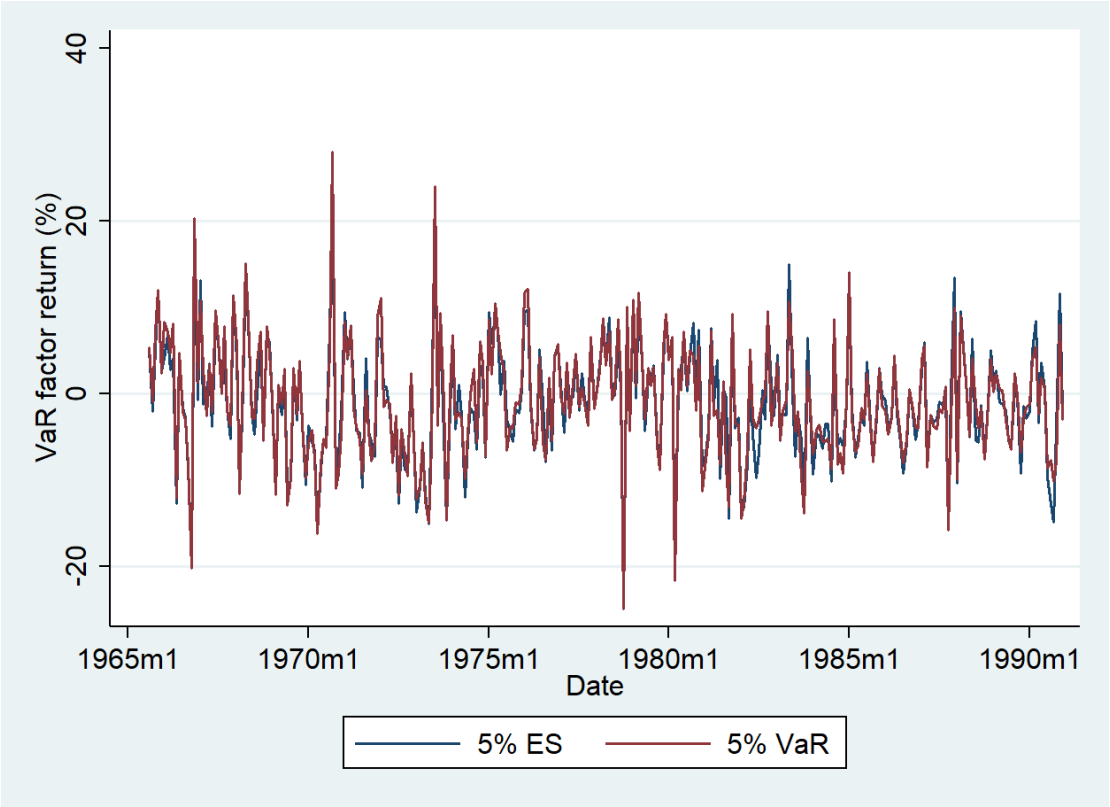
Table IA.15 shows the Fama-MacBeth regressions results for 5% VaR of different sentiment regimes discussed in Sections 4.5 of the paper.

Table IA.16 shows the Fama-MacBeth regressions results for 10% VaR of different sentiment regimes discussed in Sections 4.5 of the paper.

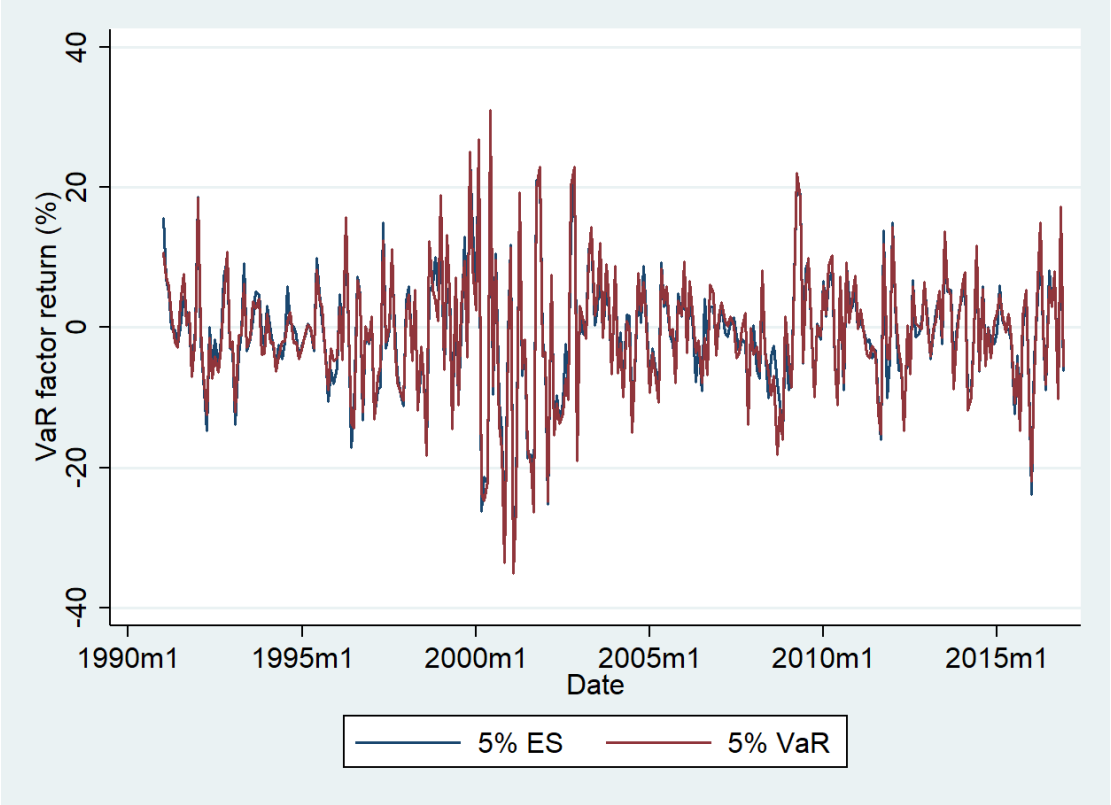
Table IA.17 shows the Fama-MacBeth regressions results for 5% ES of different sentiment regimes using one standard deviation above/below its mean as the cutoff discussed in Sections 4.5 of the paper.

Table IA.18 shows the Fama-MacBeth regressions results for 5% VaR of different sentiment regimes using one standard deviation above/below its mean as the cutoff discussed in Sections 4.5 of the paper.

Table IA.19 shows the Fama-MacBeth regressions results for 5% ES of different sentiment regimes using risk adjusted returns as the dependent variables discussed in Sections 4.5 of the paper.



(a) Aug. 1965 — Dec. 1990



(b) Jan. 1991 — Dec. 2016

Figure IA.1: 5% ES and VaR Factor Returns

Table IA.1: Decile portfolios for 5% ES

The table reports both value- and equal-weighted averages of monthly stock returns in Column (1). The last three columns show the alphas of the portfolios with respect to three different factor models: (i) The FFCPS 5-factor alpha based on the following factors: market (MKT), size (SMB), book-to-market (HML), momentum (MOM), and liquidity risk (LIQ) factors of Fama and French (1993), Carhart (1997), and Pastor and Stambaugh (2003); (ii) The Fama-French 5-factor (FF5) alpha based on five factors proposed in Fama and French (2015): market (MKT), size (SMB), book-to-market (HML), investment (CMA), and profitability (RMW); and (iii) The Q-4 factor alpha based on Hou, Xue, and Zhang (2015), using market (MKT), size (SMB), investment ($R_{I/A}$), and profitability (R_{ROE}), as well as their t-values, for decile portfolios sorted by the 5% ES in the previous month based on data from July 1965 to December 2018. Significance at the 1%, 5%, and 10% levels is indicated by ***, **, and *, respectively.

Panel A： 5% ES	Value-weighted returns on 5% ES portfolios			
	(1)	(2)	(3)	(4)
Portfolio	Excess Return (%)	FFCPS alpha (%)	FF5 alpha (%)	Q-4 alpha (%)
1(lowest)	0.482***	0.072	-0.021	-0.044
	(3.58)	(1.20)	(-0.38)	(-0.71)
2	0.566***	0.072	-0.052	-0.072
	(3.52)	(1.23)	(-1.05)	(-1.25)
3	0.619***	0.064	0.006	-0.032
	(3.43)	(1.17)	(0.12)	(-0.58)
4	0.520**	-0.144**	-0.167***	-0.232***
	(2.55)	(-2.14)	(-2.64)	(-3.35)
5	0.633***	-0.008	0.015	-0.012
	(2.75)	(-0.11)	(0.20)	(-0.15)
6	0.542**	-0.124	-0.074	-0.091
	(2.19)	(-1.55)	(-0.96)	(-1.10)
7	0.515*	-0.134	0.016	0.068
	(1.89)	(-1.37)	(0.17)	(0.69)
8	0.364	-0.289***	-0.156	-0.103
	(1.23)	(-2.68)	(-1.48)	(-0.94)
9	0.162	-0.581***	-0.359***	-0.389***
	(0.49)	(-4.77)	(-3.09)	(-3.14)
10(highest)	-0.562	-1.157***	-1.008***	-0.958***
	(-1.53)	(-7.32)	(-6.84)	(-5.88)
10-1 spread	-1.041***	-1.229***	-0.987***	-0.913***
	(-3.32)	(-6.56)	(-5.81)	(-4.77)

Table IA.1: (continued)

Panel B： 5% ES	Equal-weighted returns on 5% ES portfolios			
	(1)	(2)	(3)	(4)
Portfolio	Excess Return (%)	FFCPS alpha (%)	FF5 alpha (%)	Q-4 alpha (%)
1(lowest)	0.675***	0.224***	0.105*	0.133*
	(5.31)	(3.49)	(1.78)	(1.88)
2	0.803***	0.244***	0.082*	0.094
	(5.08)	(4.25)	(1.70)	(1.48)
3	0.806***	0.194***	0.027	0.029
	(4.64)	(3.47)	(0.59)	(0.48)
4	0.869***	0.203***	0.027	0.047
	(4.52)	(3.57)	(0.59)	(0.72)
5	0.874***	0.167***	0.001	0.029
	(4.20)	(3.03)	(0.01)	(0.46)
6	0.833***	0.108**	-0.027	0.002
	(3.71)	(1.97)	(-0.55)	(0.04)
7	0.791***	0.046	-0.049	-0.009
	(3.22)	(0.88)	(-0.94)	(-0.14)
8	0.611**	-0.134**	-0.166***	-0.127*
	(2.27)	(-2.28)	(-2.78)	(-1.96)
9	0.357	-0.407***	-0.367***	-0.292***
	(1.20)	(-5.51)	(-4.85)	(-3.69)
10(highest)	-0.312	-1.006***	-0.937***	-0.832***
	(-0.95)	(-9.60)	(-9.13)	(-7.60)
10-1 spread	-0.984***	-1.231***	-1.043***	-0.964***
	(-3.69)	(-8.68)	(-7.91)	(-6.57)

Table IA.2: Decile portfolios for 5% ES

The table reports both value- and equal-weighted averages of monthly stock returns in Column (1). The last seven columns show the alphas of the portfolios with respect to seven different factor models: (i) The FFCPS 5-factor alpha based on the following factors: market (MKT), size (SMB), book-to-market (HML), momentum (MOM), and liquidity risk (LIQ) factors of Fama and French (1993), Carhart (1997), and Pastor and Stambaugh (2003); (ii) The Fama-French 5-factor (FF5) alpha based on the five factors proposed in Fama and French (2015): market (MKT), size (SMB), book-to-market (HML), investment (CMA), and profitability (RMW); (iii) The Q-4 factor alpha based on Hou, Xue, and Zhang (2015), using market (MKT), size (SMB), investment ($R_{I/A}$), and profitability (R_{ROE}); (iv) The FMAX-6 factor alpha based on the five factors inside the FFCPS-5 factor model together with the lottery demand factor (FMAX) proposed by Bali, Brown, Murray, and Tang (2017); (v) The M-4 factor alpha based on the mispricing factors MGMT and PEPF besides MKT and SMB following Stambaugh and Yuan (2017); (vi) The BF-3 factor alpha based on the long- and short-run behavioral factors FIN and PEAD besides MKT following Daniel, Hirshleifer, and Sun (2019); and (vii) The T-4 factor alpha based on the tail-risk factor proposed by Kelly and Jiang (2014) besides the three Fama-French factors: MKT, SMB, and HML, as well as their t-values, for decile portfolios sorted by the 5% ES in the previous month based on data t (t+1) from June (July) 1972 to November (December) 2016. Significance at the 1%, 5%, and 10% levels is indicated by ***, **, and *, respectively.

Panel A：5% ES	Value-weighted returns on 5% ES portfolios							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Excess	FFCPS	FF5	Q-4	FMAX-6	M-4	BF-3	T-4
Portfolio	Return (%)	alpha (%)	alpha (%)	alpha (%)	alpha (%)	alpha (%)	alpha (%)	alpha (%)
1(lowest)	0.521***	0.049	-0.035	-0.065	-0.121**	-0.111	-0.178**	0.109*
	(3.50)	(0.74)	(-0.55)	(-0.97)	(-2.21)	(-1.61)	(-2.48)	(1.65)
2	0.605***	0.057	-0.069	-0.084	-0.104*	-0.125*	-0.111*	0.114*
	(3.39)	(0.88)	(-1.26)	(-1.35)	(-1.92)	(-1.90)	(-1.68)	(1.78)
3	0.665***	0.052	-0.002	-0.035	-0.026	-0.035	-0.050	0.114*
	(3.31)	(0.86)	(-0.04)	(-0.59)	(-0.45)	(-0.55)	(-0.79)	(1.89)
4	0.544**	-0.142*	-0.186**	-0.229***	-0.160**	-0.181**	-0.101	-0.092
	(2.40)	(-1.89)	(-2.57)	(-3.02)	(-2.10)	(-2.27)	(-1.26)	(-1.25)
5	0.683***	0.034	0.043	0.031	0.125	0.076	0.179*	0.036
	(2.66)	(0.40)	(0.50)	(0.35)	(1.47)	(0.84)	(1.95)	(0.42)
6	0.549**	-0.072	-0.065	-0.048	0.053	0.018	0.175*	-0.148*
	(2.02)	(-0.83)	(-0.76)	(-0.54)	(0.63)	(0.20)	(1.81)	(-1.73)
7	0.539*	-0.045	0.072	0.124	0.219**	0.214*	0.321***	-0.119
	(1.78)	(-0.41)	(0.69)	(1.14)	(2.34)	(1.90)	(2.78)	(-1.08)
8	0.328	-0.236**	-0.168	-0.084	0.034	0.019	0.202	-0.364***
	(1.00)	(-1.98)	(-1.44)	(-0.70)	(0.33)	(0.16)	(1.50)	(-3.03)
9	0.069	-0.552***	-0.410***	-0.379***	-0.212*	-0.190	0.022	-0.710***
	(0.19)	(-4.11)	(-3.24)	(-2.79)	(-1.89)	(-1.38)	(0.15)	(-5.29)
10(highest)	-0.638	-1.144***	-1.027***	-0.948***	-0.720***	-0.596***	-0.336*	-1.435***
	(-1.56)	(-6.51)	(-6.17)	(-5.29)	(-4.82)	(-3.40)	(-1.69)	(-8.00)
10-1 spread	-1.156***	-1.192***	-0.994***	-0.882***	-0.598***	-0.485**	-0.156	-1.544***
	(-3.29)	(-5.73)	(-5.17)	(-4.21)	(-3.72)	(-2.36)	(-0.67)	(-7.26)

Table IA.2: (continued)

Panel B：5% ES	Equal-weighted returns on 5% ES portfolios							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Portfolio	Excess Return (%)	FFCPS alpha (%)	FF5 alpha (%)	Q-4 alpha (%)	FMAX-6 alpha (%)	M-4 alpha (%)	BF-3 alpha (%)	T-4 alpha (%)
1(lowest)	0.762***	0.232***	0.144**	0.154**	0.030	0.100	0.192**	0.277***
	(5.45)	(3.30)	(2.16)	(2.00)	(0.56)	(1.31)	(2.47)	(4.00)
2	0.871***	0.242***	0.100*	0.108	0.043	0.096	0.239***	0.260***
	(5.00)	(3.80)	(1.84)	(1.54)	(0.94)	(1.40)	(3.13)	(4.18)
3	0.844***	0.179***	0.016	0.024	0.010	0.037	0.248***	0.186***
	(4.41)	(2.89)	(0.30)	(0.36)	(0.20)	(0.54)	(2.98)	(3.09)
4	0.897***	0.197***	0.009	0.044	0.041	0.054	0.329***	0.174***
	(4.26)	(3.14)	(0.16)	(0.61)	(0.77)	(0.79)	(3.36)	(2.80)
5	0.893***	0.174***	-0.014	0.027	0.056	0.045	0.382***	0.142**
	(3.94)	(2.86)	(-0.28)	(0.39)	(1.02)	(0.70)	(3.57)	(2.35)
6	0.851***	0.131**	-0.024	0.015	0.035	0.042	0.358***	0.080
	(3.51)	(2.23)	(-0.44)	(0.23)	(0.63)	(0.65)	(3.08)	(1.35)
7	0.801***	0.091	-0.037	0.017	0.064	0.057	0.445***	0.012
	(3.03)	(1.62)	(-0.64)	(0.26)	(1.12)	(0.89)	(3.46)	(0.20)
8	0.587**	-0.108*	-0.172***	-0.118*	-0.063	-0.051	0.347**	-0.217***
	(2.02)	(-1.73)	(-2.65)	(-1.74)	(-1.01)	(-0.72)	(2.46)	(-3.37)
9	0.299	-0.367***	-0.387***	-0.281***	-0.233***	-0.178**	0.228	-0.545***
	(0.93)	(-4.61)	(-4.74)	(-3.42)	(-3.11)	(-2.07)	(1.46)	(-6.47)
10(highest)	-0.435	-1.027***	-1.006***	-0.883***	-0.783***	-0.682***	-0.263	-1.268***
	(-1.22)	(-9.21)	(-9.14)	(-7.84)	(-7.94)	(-5.85)	(-1.48)	(-10.80)
10-1 spread	-1.193***	-1.260***	-1.151***	-1.036***	-0.814***	-0.782***	-0.453**	-1.546***
	(-4.13)	(-8.24)	(-7.99)	(-6.67)	(-6.99)	(-4.90)	(-2.41)	(-9.79)

Table IA.3: 5% ES and expected returns

The table reports the time-series averages of the slope coefficients and their t-values from the Fama-MacBeth regressions of the excess stock returns on various pricing variables (see the first column) using monthly data from July 1965 to December 2018.

$$ExR_{i,t+1} = b_{0,t} + b_{1,t}ES_{i,t} + b_{2,t}X_{i,t} + \varepsilon_{i,t+1},$$

where $ExR_{i,t+1}$ is the excess return, which is the difference between the monthly stock return on stock i and the one-month T-bill rate at time $t+1$. $ES_{i,t}$ is ES at 5% for stock i at time t. $X_{i,t}$ is a set of control variables. Significance at the 1%, 5%, and 10% levels is indicated by ***, **, and *, respectively.

	(1)	(2)	(3)	(4)	(5)
5% ES	-0.1329***	-0.0261	-0.2553***	-0.2277***	-0.2374***
	(-3.24)	(-0.67)	(-11.76)	(-10.48)	(-10.85)
SIZE			-0.2890***	-0.2942***	-0.2935***
			(-7.25)	(-7.40)	(-7.39)
BM			0.1758***	0.1774***	0.1756***
			(3.22)	(3.26)	(3.22)
MOM			0.0069***	0.0071***	0.0070***
			(4.90)	(5.07)	(5.01)
TURN			-0.0008	0.0212	0.0119
			(-0.02)	(0.60)	(0.33)
ILLIQ			0.0355*	0.0470**	0.0416**
			(1.80)	(2.24)	(2.03)
BETA			1.0519***	1.0627***	1.0535***
			(4.99)	(4.94)	(5.03)
MAX			-0.0857***	-0.0436***	-0.0586***
			(-11.21)	(-4.04)	(-5.48)
VOL		-0.2242***		-0.1976***	
		(-9.57)		(-5.10)	
IVOL					-0.1269***
					(-3.74)
Constant	1.3641***	1.3613***	3.0217***	3.0742***	3.0599***
	(8.19)	(8.15)	(9.95)	(10.12)	(10.10)
R-squared	0.031	0.034	0.087	0.088	0.088

Table IA.4: Decile portfolios for 5% ES

The table reports the equal-weighted averages of monthly stock returns in Column (1). The last three columns show the alphas of the portfolios with respect to three different factor models: (i) The FFCPS 5-factor alpha based on the following factors: market (MKT), size (SMB), book-to-market (HML), momentum (MOM), and liquidity risk (LIQ) factors of Fama and French (1993), Carhart (1997), and Pastor and Stambaugh (2003); (ii) The Fama-French 5-factor (FF5) alpha based on five factors proposed in Fama and French (2015): market (MKT), size (SMB), book-to-market (HML), investment (CMA), and profitability (RMW); and (iii) The Q-4 factor alpha based on Hou, Xue, and Zhang (2015), using market (MKT), size (SMB), investment ($R_{I/A}$), and profitability (R_{ROE}), as well as their t-values, for decile portfolios sorted by the 5% ES in the previous month based on data from July 1965 to December 2016 in high- and low-sentiment periods. Significance at the 1%, 5%, and 10% levels is indicated by ***, **, and *, respectively.

Panel A：				
5% ES	High-sentiment periods (the BW sentiment index is higher than its mean)			
	(1)	(2)	(3)	(4)
Portfolio	Excess Return (%)	FFCPS alpha (%)	FF5 alpha (%)	Q-4 alpha (%)
1(lowest)	0.831***	0.206**	0.063	0.111
	(4.27)	(2.20)	(0.75)	(1.06)
2	0.891***	0.249***	0.008	0.075
	(3.76)	(2.62)	(0.11)	(0.75)
3	0.776***	0.144	-0.144**	-0.058
	(2.98)	(1.49)	(-2.02)	(-0.57)
4	0.846***	0.243**	-0.080	0.040
	(2.96)	(2.40)	(-1.03)	(0.36)
5	0.697**	0.109	-0.200**	-0.059
	(2.26)	(1.09)	(-2.56)	(-0.53)
6	0.611*	0.112	-0.164*	-0.009
	(1.83)	(1.13)	(-1.82)	(-0.08)
7	0.338	-0.057	-0.286***	-0.098
	(0.91)	(-0.63)	(-3.05)	(-0.91)
8	0.022	-0.225**	-0.367***	-0.204*
	(0.05)	(-2.33)	(-3.40)	(-1.84)
9	-0.443	-0.512***	-0.530***	-0.292**
	(-0.96)	(-4.32)	(-4.10)	(-2.34)
10(highest)	-1.265**	-1.124***	-1.067***	-0.841***
	(-2.48)	(-6.73)	(-6.18)	(-4.91)
10-1 spread	-2.096***	-1.330***	-1.131***	-0.952***
	(-4.81)	(-6.01)	(-5.31)	(-4.30)

Table IA.4: (continued)

Panel B： 5% ES	Low-sentiment periods (the BW sentiment index is less than its mean)			
	(1)	(2)	(3)	(4)
Portfolio	Excess Return (%)	FFCPS alpha (%)	FF5 alpha (%)	Q-4 alpha (%)
1(lowest)	0.572***	0.165*	0.070	0.093
	(3.25)	(1.82)	(0.85)	(0.98)
2	0.762***	0.177**	0.081	0.066
	(3.43)	(2.45)	(1.23)	(0.84)
3	0.871***	0.179***	0.102*	0.068
	(3.56)	(2.70)	(1.74)	(0.95)
4	0.928***	0.120*	0.058	0.016
	(3.40)	(1.84)	(1.01)	(0.22)
5	1.064***	0.173***	0.110**	0.083
	(3.59)	(2.74)	(1.98)	(1.15)
6	1.051***	0.071	0.042	0.001
	(3.30)	(1.13)	(0.74)	(0.01)
7	1.185***	0.114*	0.098	0.058
	(3.43)	(1.79)	(1.63)	(0.80)
8	1.122***	-0.031	-0.014	-0.051
	(3.03)	(-0.43)	(-0.20)	(-0.67)
9	1.030**	-0.251***	-0.197**	-0.249***
	(2.53)	(-2.74)	(-2.18)	(-2.60)
10(highest)	0.462	-0.823***	-0.794***	-0.789***
	(1.02)	(-6.16)	(-6.36)	(-5.83)
10-1 spread	-0.104	-0.990***	-0.865***	-0.883***
	(-0.30)	(-5.42)	(-5.17)	(-4.76)

Table IA.5: Decile portfolios for 5% VaR

The table reports the value-weighted averages of monthly stock returns in Column (1). The last three columns show the alphas of the portfolios with respect to three different factor models: (i) The FFCPS 5-factor alpha based on the following factors: market (MKT), size (SMB), book-to-market (HML), momentum (MOM), and liquidity risk (LIQ) factors of Fama and French (1993), Carhart (1997), and Pastor and Stambaugh (2003); (ii) The Fama-French 5-factor (FF5) alpha based on five factors proposed in Fama and French (2015): market (MKT), size (SMB), book-to-market (HML), investment (CMA), and profitability (RMW); and (iii) The Q-4 factor alpha based on Hou, Xue, and Zhang (2015), using market (MKT), size (SMB), investment ($R_{I/A}$), and profitability (R_{ROE}), as well as their t-values, for decile portfolios sorted by the 5% VaR in the previous month based on data from July 1965 to December 2016 in high- and low-sentiment periods. Significance at the 1%, 5%, and 10% levels is indicated by ***, **, and *, respectively.

Panel A：				
5% VaR	High-sentiment periods (the BW sentiment index is higher than its mean)			
	(1)	(2)	(3)	(4)
Portfolio	Excess Return (%)	FFCPS alpha (%)	FF5 alpha (%)	Q-4 alpha (%)
1(lowest)	0.631***	0.062	-0.070	-0.103
	(2.93)	(0.60)	(-0.70)	(-0.97)
2	0.548**	0.058	-0.165**	-0.172*
	(2.25)	(0.58)	(-2.04)	(-1.84)
3	0.542*	-0.012	-0.198**	-0.214**
	(1.94)	(-0.12)	(-2.19)	(-2.18)
4	0.471	-0.037	-0.165	-0.088
	(1.52)	(-0.33)	(-1.58)	(-0.76)
5	0.410	0.020	-0.054	-0.024
	(1.19)	(0.17)	(-0.47)	(-0.20)
6	0.240	0.036	0.065	0.203
	(0.61)	(0.26)	(0.47)	(1.46)
7	-0.105	-0.146	-0.061	0.037
	(-0.24)	(-0.92)	(-0.39)	(0.24)
8	-0.435	-0.372**	-0.279*	-0.197
	(-0.89)	(-2.19)	(-1.66)	(-1.15)
9	-0.606	-0.438**	-0.336	-0.164
	(-1.14)	(-2.09)	(-1.62)	(-0.79)
10(highest)	-1.771***	-1.502***	-1.230***	-1.115***
	(-2.99)	(-5.84)	(-5.05)	(-4.37)
10-1 spread	-2.401***	-1.564***	-1.160***	-1.012***
	(-4.54)	(-5.23)	(-4.20)	(-3.46)

Table IA.5: (continued)

Panel B： 5% VaR	Low-sentiment periods (the BW sentiment index is less than its mean)			
	(1)	(2)	(3)	(4)
Portfolio	Excess Return (%)	FFCPS alpha (%)	FF5 alpha (%)	Q-4 alpha (%)
1(lowest)	0.408**	0.029	-0.025	0.016
	(2.30)	(0.36)	(-0.33)	(0.19)
2	0.505**	-0.051	-0.084	-0.136*
	(2.30)	(-0.73)	(-1.33)	(-1.96)
3	0.708***	0.080	0.092	0.061
	(2.90)	(1.15)	(1.42)	(0.88)
4	0.623**	-0.147*	-0.112	-0.232***
	(2.25)	(-1.73)	(-1.42)	(-2.81)
5	0.566*	-0.297***	-0.257***	-0.330***
	(1.82)	(2.87)	(2.63)	(-3.17)
6	0.923***	-0.095	0.057	-0.021
	(2.69)	(-0.85)	(0.54)	(-0.19)
7	1.044***	-0.048	0.055	-0.033
	(2.78)	(-0.38)	(0.46)	(-0.26)
8	0.890**	-0.281*	-0.129	-0.203
	(2.21)	(-1.84)	(-0.88)	(-1.32)
9	0.855*	-0.492***	-0.260*	-0.330**
	(1.87)	(-2.95)	(-1.69)	(-2.00)
10(highest)	0.614	-0.673***	-0.563***	-0.572**
	(1.22)	(-2.84)	(-2.71)	(-2.48)
10-1 spread	0.211	-0.703**	-0.540**	-0.588**
	(0.50)	(-2.54)	(-2.22)	(-2.16)

Table IA.6: Decile portfolios for 5% VaR

The table reports the equal-weighted averages of monthly stock returns in Column (1). The last three columns show the alphas of the portfolios with respect to three different factor models: (i) The FFCPS 5-factor alpha based on the following factors: market (MKT), size (SMB), book-to-market (HML), momentum (MOM), and liquidity risk (LIQ) factors of Fama and French (1993), Carhart (1997), and Pastor and Stambaugh (2003); (ii) The Fama-French 5-factor (FF5) alpha based on five factors proposed in Fama and French (2015): market (MKT), size (SMB), book-to-market (HML), investment (CMA), and profitability (RMW); and (iii) The Q-4 factor alpha based on Hou, Xue, and Zhang (2015), using market (MKT), size (SMB), investment ($R_{I/A}$), and profitability (R_{ROE}), as well as their t-values, for decile portfolios sorted by the 5% VaR in the previous month based on data from July 1965 to December 2016 in high- and low-sentiment periods. Significance at the 1%, 5%, and 10% levels is indicated by ***, **, and *, respectively.

Panel A：				
5% VaR	High-sentiment periods (the BW sentiment index is higher than its mean)			
	(1)	(2)	(3)	(4)
Portfolio	Excess Return (%)	FFCPS alpha (%)	FF5 alpha (%)	Q-4 alpha (%)
1(lowest)	0.808***	0.191**	0.046	0.092
	(4.19)	(2.08)	(0.56)	(0.91)
2	0.850***	0.213**	-0.030	0.046
	(3.61)	(2.23)	(-0.42)	(0.46)
3	0.816***	0.202**	-0.110	-0.017
	(3.15)	(2.05)	(-1.57)	(-0.17)
4	0.800***	0.156	-0.146*	-0.020
	(2.81)	(1.51)	(-1.89)	(-0.18)
5	0.715**	0.153	-0.188**	-0.044
	(2.34)	(1.48)	(-2.28)	(-0.37)
6	0.594*	0.080	-0.211**	-0.058
	(1.77)	(0.80)	(-2.37)	(-0.50)
7	0.348	-0.069	-0.306***	-0.122
	(0.93)	(-0.73)	(-3.17)	(-1.08)
8	0.016	-0.235**	-0.364***	-0.207*
	(0.04)	(-2.47)	(-3.45)	(-1.90)
9	-0.373	-0.423***	-0.450***	-0.235*
	(-0.80)	(-3.61)	(-3.50)	(-1.88)
10(highest)	-1.271**	-1.124***	-1.006***	-0.772***
	(-2.46)	(-6.26)	(-5.65)	(-4.36)
10-1 spread	-2.079***	-1.315***	-1.052***	-0.864***
	(-4.71)	(-5.64)	(-4.88)	(-3.83)

Table IA.6: (continued)

Panel B： 5% VaR	Low-sentiment periods (the BW sentiment index is less than its mean)			
	(1)	(2)	(3)	(4)
Portfolio	Excess Return (%)	FFCPS alpha (%)	FF5 alpha (%)	Q-4 alpha (%)
1(lowest)	0.584***	0.157*	0.067	0.084
	(3.28)	(1.73)	(0.82)	(0.90)
2	0.741***	0.168**	0.066	0.056
	(3.37)	(2.34)	(1.03)	(0.72)
3	0.849***	0.165**	0.082	0.056
	(3.47)	(2.39)	(1.34)	(0.74)
4	0.923***	0.125*	0.066	0.019
	(3.43)	(1.92)	(1.17)	(0.27)
5	0.978***	0.100	0.028	-0.000
	(3.30)	(1.51)	(0.49)	(-0.00)
6	1.102***	0.142**	0.092	0.050
	(3.47)	(2.27)	(1.63)	(0.69)
7	1.162***	0.084	0.062	-0.000
	(3.36)	(1.33)	(1.05)	(-0.00)
8	1.081***	-0.076	-0.046	-0.066
	(2.94)	(-1.04)	(-0.65)	(-0.83)
9	1.046**	-0.235***	-0.176**	-0.213**
	(2.56)	(-2.63)	(-2.02)	(-2.29)
10(highest)	0.579	-0.733***	-0.686***	-0.691***
	(1.26)	(-5.02)	(-5.08)	(-4.72)
10-1 spread	0.001	-0.892***	-0.755***	-0.776***
	(0.00)	(-4.58)	(-4.26)	(-3.95)

Table IA.7: Decile portfolios for 5% ES

The table reports the value-weighted averages of monthly stock returns in Column (1). The last seven columns show alphas of the portfolios with respect to seven different factor models: (i) The FFCPS 5-factor alpha based on the following factors: market (MKT), size (SMB), book-to-market (HML), momentum (MOM), and liquidity risk (LIQ) factors of Fama and French (1993), Carhart (1997), and Pastor and Stambaugh (2003); (ii) The Fama-French 5-factor (FF5) alpha based on the five factors proposed in Fama and French (2015): market (MKT), size (SMB), book-to-market (HML), investment (CMA), and profitability (RMW); (iii) The Q-4 factor alpha based on Hou, Xue, and Zhang (2015) using market (MKT), size (SMB), investment ($R_{I/A}$), and profitability (R_{ROE}); (iv) The FMAX-6 factor alpha based on the five factors in the FFCPS-5 factor model together with the lottery demand factor (FMAX) proposed by Bali, Brown, Murray, and Tang (2017); (v) The M-4 factor alpha based on the mispricing factors MGMT and PEPF besides MKT and SMB following Stambaugh and Yuan (2017); (vi) The BF-3 factor alpha based on the long- and short-run behavioral factors FIN and PEAD besides MKT following Daniel, Hirshleifer, and Sun (2019); and (vii) The T-4 factor alpha based on the tail-risk factor proposed by Kelly and Jiang (2014) besides the three Fama-French factors: MKT, SMB, and HML, as well as their t-values, for decile portfolios sorted by the 5% ES in the previous month based on data t (t+1) from June (July) 1972 to November (December) 2016 in high- and low-sentiment periods. Significance at the 1%, 5%, and 10% levels is indicated by ***, **, and *, respectively.

Panel A：5% ES	High-sentiment periods (the BW sentiment index is higher than its mean)							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Portfolio	Excess Return (%)	FFCPS alpha (%)	FF5 alpha (%)	Q-4 alpha (%)	FMAX-6 alpha (%)	M-4 alpha (%)	BF-3 alpha (%)	T-4 alpha (%)
1(lowest)	0.611***	0.004	-0.099	-0.128	-0.189**	-0.214*	-0.231**	0.059
	(2.67)	(0.03)	(-0.96)	(-1.21)	(-2.02)	(-1.85)	(-2.00)	(0.56)
2	0.648**	0.036	-0.146	-0.133	-0.205**	-0.228**	-0.209*	0.115
	(2.42)	(0.33)	(-1.57)	(-1.30)	(-2.27)	(-2.05)	(-1.87)	(1.07)
3	0.635**	0.019	-0.120	-0.082	-0.098	-0.128	-0.072	0.043
	(2.12)	(0.19)	(-1.30)	(-0.83)	(-1.02)	(-1.16)	(-0.70)	(0.44)
4	0.515	-0.097	-0.214*	-0.160	-0.159	-0.231*	-0.031	-0.078
	(1.59)	(-0.81)	(-1.83)	(-1.30)	(-1.30)	(-1.78)	(-0.25)	(-0.66)
5	0.507	0.074	0.062	0.113	0.088	0.120	0.255*	0.095
	(1.34)	(0.52)	(0.43)	(0.77)	(0.59)	(0.78)	(1.65)	(0.68)
6	0.271	-0.023	-0.070	-0.023	0.117	0.067	0.274*	-0.124
	(0.68)	(-0.15)	(-0.47)	(-0.15)	(0.79)	(0.43)	(1.74)	(-0.85)
7	0.025	0.016	0.147	0.231	0.339**	0.413**	0.357**	-0.158
	(0.05)	(0.09)	(0.86)	(1.35)	(2.17)	(2.24)	(2.00)	(-0.88)
8	-0.288	-0.261	-0.176	-0.065	0.085	0.160	0.243	-0.433**
	(-0.56)	(-1.30)	(-0.88)	(-0.33)	(0.47)	(0.79)	(1.14)	(-2.15)
9	-0.528	-0.419*	-0.245	-0.191	-0.021	0.115	0.227	-0.636***
	(-0.95)	(-1.92)	(-1.17)	(-0.91)	(-0.11)	(0.51)	(1.00)	(-2.88)
10(highest)	-1.745***	-1.393***	-1.285***	-1.231***	-0.857***	-0.635**	-0.466	-1.862***
	(-2.80)	(-5.13)	(-4.81)	(-4.44)	(-3.64)	(-2.37)	(-1.59)	(-6.47)
10-1 spread	-2.356***	-1.396***	-1.186***	-1.103***	-0.667***	-0.421	-0.235	-1.921***
	(-4.17)	(-4.43)	(-3.93)	(-3.53)	(-2.66)	(-1.37)	(-0.69)	(-5.72)

Table IA.7: (continued)

Panel B：5% ES	Low-sentiment periods (the BW sentiment index is lower than its mean)							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Portfolio	Excess Return (%)	FFCPS alpha (%)	FF5 alpha (%)	Q-4 alpha (%)	FMAX-6 alpha (%)	M-4 alpha (%)	BF-3 alpha (%)	T-4 alpha (%)
1(lowest)	0.449**	0.011	-0.031	-0.034	-0.091	-0.057	-0.150*	0.042
	(2.29)	(0.13)	(-0.39)	(-0.40)	(-1.40)	(-0.68)	(-1.68)	(0.52)
2	0.569**	0.014	-0.024	-0.050	-0.055	-0.044	-0.058	0.040
	(2.37)	(0.19)	(-0.37)	(-0.71)	(-0.89)	(-0.59)	(-0.79)	(0.55)
3	0.689**	0.009	0.044	0.001	-0.011	0.022	-0.053	0.078
	(2.54)	(0.14)	(0.63)	(0.01)	(-0.16)	(0.30)	(-0.70)	(1.10)
4	0.568*	-0.208**	-0.184**	-0.264***	-0.188**	-0.141	-0.166	-0.152
	(1.80)	(-2.20)	(-1.98)	(-2.79)	(-1.99)	(-1.44)	(-1.63)	(-1.60)
5	0.825**	0.008	0.027	-0.014	0.101	0.056	0.124	0.021
	(2.36)	(0.08)	(0.25)	(-0.13)	(1.05)	(0.52)	(1.11)	(0.20)
6	0.774**	-0.086	-0.052	-0.045	-0.001	0.013	0.100	-0.145
	(2.08)	(-0.82)	(-0.50)	(-0.42)	(-0.01)	(0.12)	(0.85)	(-1.38)
7	0.956**	0.005	0.076	0.092	0.162	0.133	0.303**	0.042
	(2.37)	(0.04)	(0.59)	(0.67)	(1.46)	(0.97)	(2.04)	(0.31)
8	0.826**	-0.109	-0.116	-0.079	0.041	-0.035	0.195	-0.130
	(1.97)	(-0.78)	(-0.85)	(-0.55)	(0.35)	(-0.24)	(1.14)	(-0.92)
9	0.552	-0.518***	-0.465***	-0.471***	-0.308**	-0.328*	-0.117	-0.596***
	(1.16)	(-3.15)	(-3.10)	(-2.79)	(-2.42)	(-1.92)	(-0.59)	(-3.62)
10(highest)	0.263	-0.805***	-0.773***	-0.696***	-0.568***	-0.500**	-0.223	-0.882***
	(0.49)	(-3.59)	(-3.75)	(-3.07)	(-2.97)	(-2.19)	(-0.86)	(-3.94)
10-1 spread	-0.180	-0.816***	-0.744***	-0.662**	-0.477**	-0.443	-0.071	-0.925***
	(-0.42)	(-3.07)	(-3.08)	(-2.46)	(-2.32)	(-1.64)	(-0.23)	(-3.48)

Table IA.8: Decile portfolios for 5% ES

The table reports the value-weighted averages of monthly stock returns in Column (1). The last three columns show the alphas of the portfolios with respect to three different factor models: (i) The FFCPS 5-factor alpha based on the following factors: market (MKT), size (SMB), book-to-market (HML), momentum (MOM), and liquidity risk (LIQ) factors of Fama and French (1993), Carhart (1997), and Pastor and Stambaugh (2003); (ii) The Fama-French 5-factor (FF5) alpha based on five factors proposed in Fama and French (2015): market (MKT), size (SMB), book-to-market (HML), investment (CMA), and profitability (RMW); and (iii) The Q-4 factor alpha based on Hou, Xue, and Zhang (2015), using market (MKT), size (SMB), investment ($R_{I/A}$), and profitability (R_{ROE}), as well as their t-values, for decile portfolios sorted by the 5% ES in the previous month based on data from July 1965 to December 2016 in high- and low-sentiment periods. Significance at the 1%, 5%, and 10% levels is indicated by ***, **, and *, respectively.

Panel A：5% ES	High-sentiment periods (the BW sentiment index is larger than one standard deviation above its mean)			
	(1)	(2)	(3)	(4)
Portfolio	Excess Return (%)	FFCPS alpha (%)	FF5 alpha (%)	Q-4 alpha (%)
1(lowest)	0.168	0.135	-0.216	-0.188
	(0.40)	(0.71)	(-1.10)	(-0.98)
2	0.139	0.293	-0.183	-0.078
	(0.30)	(1.45)	(-1.00)	(-0.40)
3	-0.128	0.122	-0.175	-0.174
	(-0.23)	(0.74)	(-1.02)	(-1.06)
4	-0.568	-0.307	-0.509**	-0.427*
	(-0.87)	(-1.35)	(-2.35)	(-1.78)
5	-0.617	-0.022	-0.099	0.069
	(-0.82)	(-0.09)	(-0.41)	(0.27)
6	-1.131	-0.297	-0.254	-0.134
	(-1.34)	(-1.41)	(-1.16)	(-0.63)
7	-1.760*	-0.580**	-0.122	-0.078
	(-1.76)	(-2.07)	(-0.43)	(-0.35)
8	-1.601	-0.254	0.175	0.227
	(-1.44)	(-0.69)	(0.47)	(0.66)
9	-2.240*	-0.609*	-0.236	-0.342
	(-1.86)	(-1.71)	(-0.67)	(-0.93)
10(highest)	-3.911***	-2.043***	-1.319**	-1.674***
	(-2.85)	(-3.59)	(-2.45)	(-2.84)
10-1 spread	-4.079***	-2.178***	-1.103*	-1.487**
	(-3.39)	(-3.46)	(-1.95)	(-2.33)

Table IA.8: (continued)

Panel B：5% ES	Low-sentiment periods (the BW sentiment index is less than one standard deviation below its mean)			
	(1)	(2)	(3)	(4)
Portfolio	Excess Return (%)	FFCPS alpha (%)	FF5 alpha (%)	Q-4 alpha (%)
1(lowest)	-0.128	0.108	-0.047	0.186
	(-0.31)	(0.74)	(-0.41)	(1.31)
2	-0.020	-0.015	-0.064	-0.047
	(-0.04)	(-0.10)	(-0.58)	(-0.32)
3	0.186	0.069	0.170	-0.012
	(0.36)	(0.63)	(1.59)	(-0.10)
4	0.412	-0.050	0.158	-0.052
	(0.72)	(-0.30)	(1.15)	(-0.31)
5	0.516	0.090	0.226	-0.057
	(0.87)	(0.49)	(1.39)	(-0.32)
6	0.729	0.015	0.313*	-0.159
	(1.05)	(0.07)	(1.69)	(-0.78)
7	0.885	-0.115	0.250	-0.119
	(1.24)	(-0.46)	(1.10)	(-0.47)
8	0.682	-0.840***	-0.280	-0.772**
	(0.87)	(-2.84)	(-0.94)	(-2.63)
9	1.076	-0.637*	0.177	-0.886**
	(1.25)	(-1.85)	(0.50)	(-2.59)
10(highest)	0.306	-1.079***	-0.883**	-1.418***
	(0.33)	(-2.77)	(-2.35)	(-3.51)
10-1 spread	0.434	-1.188***	-0.836*	-1.604***
	(0.63)	(-2.69)	(-1.95)	(-3.60)

Table IA.9: Decile portfolios for 5% ES

The table reports the equal-weighted averages of monthly stock returns in column (1). The last three columns show the alphas of the portfolios with respect to three different factor models: (i) The FFCPS 5-factor alpha based on the following factors: market (MKT), size (SMB), book-to-market (HML), momentum (MOM), and liquidity risk (LIQ) factors of Fama and French (1993), Carhart (1997), and Pastor and Stambaugh (2003); (ii) The Fama-French 5-factor (FF5) alpha based on five factors proposed in Fama and French (2015): market (MKT), size (SMB), book-to-market (HML), investment (CMA), and profitability (RMW); and (iii) The Q-4 factor alpha based on Hou, Xue, and Zhang (2015), using market (MKT), size (SMB), investment ($R_{I/A}$), and profitability (R_{ROE}), as well as their t-values, for decile portfolios sorted by the 5% ES in the previous month based on data from July 1965 to December 2016 in high- and low-sentiment periods. Significance at the 1%, 5%, and 10% levels is indicated by ***, **, and *, respectively.

Panel A：5% ES	High-sentiment periods (the BW sentiment index is larger than one standard deviation above its mean)			
	(1)	(2)	(3)	(4)
Portfolio	Excess Return (%)	FFCPS alpha (%)	FF5 alpha (%)	Q-4 alpha (%)
1(lowest)	0.478	0.327**	0.055	0.123
	(1.22)	(2.02)	(0.36)	(0.62)
2	0.459	0.469***	0.084	0.170
	(1.00)	(2.83)	(0.66)	(1.04)
3	0.280	0.384**	-0.024	0.071
	(0.53)	(2.12)	(-0.19)	(0.44)
4	0.226	0.406**	0.015	0.129
	(0.38)	(2.21)	(0.11)	(0.73)
5	0.011	0.262	-0.116	0.048
	(0.02)	(1.29)	(-0.76)	(0.23)
6	-0.223	0.180	-0.098	0.002
	(-0.31)	(1.07)	(-0.64)	(0.01)
7	-0.652	-0.056	-0.211	-0.093
	(-0.81)	(-0.35)	(-1.29)	(-0.50)
8	-1.122	-0.189	-0.157	-0.089
	(-1.21)	(-1.06)	(-0.79)	(-0.46)
9	-1.702	-0.514**	-0.146	-0.183
	(-1.61)	(-2.31)	(-0.68)	(-0.88)
10(highest)	-2.888**	-1.367***	-0.720**	-0.921***
	(-2.41)	(-3.81)	(-2.33)	(-2.73)
10-1 spread	-3.366***	-1.694***	-0.775**	-1.044**
	(-3.28)	(-3.72)	(-2.06)	(-2.37)

Table IA.9: (continued)

Panel B：5% ES	Low-sentiment periods (the BW sentiment index is less than one standard deviation below its mean)			
	(1)	(2)	(3)	(4)
Portfolio	Excess Return (%)	FFCPS alpha (%)	FF5 alpha (%)	Q-4 alpha (%)
1(lowest)	0.224	0.063	-0.088	0.328*
	(0.54)	(0.34)	(-0.65)	(1.78)
2	0.525	0.191	0.011	0.222*
	(1.07)	(1.48)	(0.10)	(1.68)
3	0.769	0.175	0.119	0.288**
	(1.45)	(1.58)	(1.36)	(2.48)
4	1.067*	0.129	0.183*	0.299**
	(1.81)	(1.03)	(1.95)	(2.15)
5	1.303**	0.226*	0.278***	0.381**
	(2.08)	(1.79)	(2.76)	(2.58)
6	1.366*	0.171	0.267***	0.236*
	(1.95)	(1.33)	(2.81)	(1.72)
7	1.531**	0.133	0.318**	0.289*
	(2.08)	(0.93)	(2.56)	(1.71)
8	1.422*	-0.205	0.008	-0.095
	(1.79)	(-1.08)	(0.05)	(-0.49)
9	1.631*	-0.318	0.153	-0.209
	(1.88)	(-1.63)	(0.80)	(-0.92)
10(highest)	0.939	-0.972***	-0.688***	-1.176***
	(1.00)	(-3.60)	(-2.69)	(-3.92)
10-1 spread	0.715	-1.035***	-0.599*	-1.504***
	(1.09)	(-3.20)	(-1.86)	(-4.41)

Table IA.10: Decile portfolios for 5% VaR

The table reports the value-weighted averages of monthly stock returns in Column (1). The last three columns show alphas of the portfolios with respect to three different factor models: (i) The FFCPS 5-factor alpha based on the following factors: market (MKT), size (SMB), book-to-market (HML), momentum (MOM), and liquidity risk (LIQ) factors of Fama and French (1993), Carhart (1997), and Pastor and Stambaugh (2003); (ii) The Fama-French 5-factor (FF5) alpha based on five factors proposed in Fama and French (2015): market (MKT), size (SMB), book-to-market (HML), investment (CMA), and profitability (RMW); and (iii) The Q-4 factor alpha based on Hou, Xue, and Zhang (2015), using market (MKT), size (SMB), investment ($R_{I/A}$), and profitability (R_{ROE}), as well as their t-values, for decile portfolios sorted by the 5% VaR in the previous month based on data from July 1965 to December 2016 in high- and low-sentiment periods. Significance at the 1%, 5%, and 10% levels is indicated by ***, **, and *, respectively.

Panel A：5% VaR	High-sentiment periods (the BW sentiment index is larger than one standard deviation above its mean)			
	(1)	(2)	(3)	(4)
Portfolio	Excess Return (%)	FFCPS alpha (%)	FF5 alpha (%)	Q-4 alpha (%)
1(lowest)	0.248	0.140	-0.236	-0.199
	(0.58)	(0.63)	(-1.04)	(-0.88)
2	0.187	0.320	-0.128	-0.016
	(0.41)	(1.59)	(-0.71)	(-0.08)
3	-0.116	0.065	-0.442**	-0.379**
	(-0.21)	(0.35)	(-2.41)	(-2.09)
4	-0.284	-0.025	-0.253	-0.140
	(-0.46)	(-0.12)	(-1.37)	(-0.62)
5	-0.564	-0.073	-0.043	-0.024
	(-0.77)	(-0.43)	(-0.25)	(-0.13)
6	-1.240	-0.279	-0.105	0.051
	(-1.41)	(-1.25)	(-0.42)	(0.23)
7	-1.609*	-0.472*	-0.197	-0.166
	(-1.67)	(-1.86)	(-0.77)	(-0.69)
8	-1.858	-0.449	-0.152	-0.118
	(-1.64)	(-1.37)	(-0.46)	(-0.37)
9	-2.305*	-0.728**	-0.415	-0.482
	(-1.88)	(-2.03)	(-1.13)	(-1.31)
10(highest)	-3.812***	-1.929***	-1.145**	-1.544**
	(-2.71)	(-3.23)	(-2.05)	(-2.52)
10-1 spread	-4.060***	-2.069***	-0.909	-1.345**
	(-3.23)	(-3.13)	(-1.57)	(-2.02)

Table IA.10: (continued)

Panel B: 5% VaR	Low-sentiment periods (the BW sentiment index is less than one standard deviation below its mean)			
	(1)	(2)	(3)	(4)
Portfolio	Excess Return (%)	FFCPS alpha (%)	FF5 alpha (%)	Q-4 alpha (%)
1(lowest)	-0.183	0.005	-0.139	0.183
	(-0.45)	(0.03)	(-1.08)	(1.17)
2	0.040	0/140	0/098	0.050
	(0.08)	(1.14)	(1.02)	(0.39)
3	0.199	0.019	0.125	-0.030
	(0.39)	(0.13)	(1.07)	(-0.20)
4	0.435	0.208	0.325***	0.075
	(0.79)	(1.57)	(2.95)	(0.57)
5	0.327	-0.224	-0.035	-0.375*
	(0.53)	(-0.98)	(-0.19)	(-1.78)
6	0.613	-0.297	0.138	-0.346
	(0.95)	(-1.40)	(0.70)	(-1.63)
7	1.049	0.135	0.326	-0.132
	(1.37)	(0.55)	(1.55)	(-0.56)
8	0.780	-0.635*	-0.121	-0.890***
	(1.00)	(-1.82)	(-0.36)	(-2.69)
9	0.886	-0.675**	-0.100	-0.609*
	(0.98)	(-2.17)	(-0.32)	(-1.95)
10(highest)	0.824	-0.801*	-0.408	-1.240***
	(0.87)	(-1.96)	(-1.00)	(-2.95)
10-1 spread	1.006	-0.807*	-0.269	-1.423***
	(1.39)	(-1.73)	(-0.57)	(-3.10)

Table IA.11: Decile portfolios for 5% VaR

The table reports the equal-weighted averages of monthly stock returns in Column (1). The last three columns show alphas of the portfolios with respect to three different factor models: (i) The FFCPS 5-factor alpha based on the following factors: market (MKT), size (SMB), book-to-market (HML), momentum (MOM), and liquidity risk (LIQ) factors of Fama and French (1993), Carhart (1997), and Pastor and Stambaugh (2003); (ii) The Fama-French 5-factor (FF5) alpha based on five factors proposed in Fama and French (2015): market (MKT), size (SMB), book-to-market (HML), investment (CMA), and profitability (RMW); and (iii) The Q-4 factor alpha based on Hou, Xue, and Zhang (2015), using market (MKT), size (SMB), investment ($R_{I/A}$), and profitability (R_{ROE}), as well as their t-values, for decile portfolios sorted by the 5% VaR in the previous month based on data from July 1965 to December 2016 in high- and low-sentiment periods. Significance at the 1%, 5%, and 10% levels is indicated by ***, **, and *, respectively.

Panel A：5% VaR	High-sentiment periods (the BW sentiment index is larger than one standard deviation above its mean)			
	(1)	(2)	(3)	(4)
Portfolio	Excess Return (%)	FFCPS alpha (%)	FF5 alpha (%)	Q-4 alpha (%)
1(lowest)	0.403	0.268	-0.004	0.060
	(1.04)	(1.65)	(-0.03)	(0.31)
2	0.500	0.474***	0.115	0.217
	(1.08)	(2.77)	(0.89)	(1.21)
3	0.301	0.396**	-0.039	0.074
	(0.58)	(2.22)	(-0.34)	(0.46)
4	0.204	0.345*	-0.017	0.102
	(0.35)	(1.79)	(-0.11)	(0.53)
5	0.079	0.337*	-0.048	0.105
	(0.12)	(1.76)	(-0.34)	(0.54)
6	-0.254	0.150	-0.142	-0.025
	(-0.35)	(0.84)	(-0.92)	(-0.14)
7	-0.520	0.038	-0.130	-0.022
	(-0.65)	(0.23)	(-0.77)	(-0.12)
8	-1.098	-0.185	-0.189	-0.114
	(-1.19)	(-1.08)	(-0.98)	(-0.61)
9	-1.719	-0.503**	-0.163	-0.198
	(-1.61)	(-2.33)	(-0.75)	(-0.93)
10(highest)	-3.030**	-1.419***	-0.701**	-0.941***
	(-2.45)	(-3.72)	(-2.25)	(-2.67)
10-1 spread	-3.433***	-1.687***	-0.697*	-1.001**
	(-3.22)	(-3.48)	(-1.82)	(-2.16)

Table IA.11: (continued)

Panel B: 5% VaR	Low-sentiment periods (the BW sentiment index is less than one standard deviation below its mean)			
	(1)	(2)	(3)	(4)
Portfolio	Excess Return (%)	FFCPS alpha (%)	FF5 alpha (%)	Q-4 alpha (%)
1(lowest)	0.246	0.023	-0.096	0.312
	(0.59)	(0.12)	(-0.68)	(1.64)
2	0.483	0.131	-0.037	0.192
	(1.00)	(1.07)	(-0.36)	(1.54)
3	0.821	0.250*	0.165	0.395***
	(1.55)	(1.85)	(1.60)	(2.71)
4	0.991*	0.155	0.195**	0.324**
	(1.68)	(1.51)	(2.48)	(2.94)
5	1.250*	0.268*	0.238**	0.374**
	(1.96)	(1.92)	(2.33)	(2.43)
6	1.309*	0.084	0.207*	0.149
	(1.96)	(0.61)	(1.91)	(0.99)
7	1.537**	0.050	0.291**	0.136
	(2.04)	(0.33)	(2.41)	(0.81)
8	1.458*	-0.214	0.022	-0.055
	(1.83)	(-1.05)	(0.13)	(-0.25)
9	1.524*	-0.373*	0.051	-0.242
	(1.76)	(-1.85)	(0.28)	(-1.06)
10(highest)	1.156	-0.781***	-0.477*	-1.024***
	(1.22)	(-2.92)	(-1.75)	(-3.24)
10-1 spread	0.910	-0.804**	-0.382	-1.336***
	(1.36)	(-2.33)	(-1.09)	(-3.64)

Table: IA.12: 1% ES and expected returns for different sentiment regimes

The table reports the time-series averages of the slope coefficients and their t-values from the Fama-MacBeth regressions of the excess stock returns on various pricing variables (see the first column) using monthly data from July 1965 to December 2016 in high- and low-sentiment periods.

$$ExR_{i,t+1} = b_{0,t} + b_{1,t}ES_{i,t} + b_{2,t}X_{i,t} + \varepsilon_{i,t+1},$$

where $ExR_{i,t+1}$ is the excess return, which is the difference between the monthly stock return on stock i and the one-month T-bill rate at time $t+1$. $ES_{i,t}$ is ES at 1% for stock i at time t. $X_{i,t}$ is a set of control variables. Significance at the 1%, 5%, and 10% levels is indicated by ***, **, and *, respectively.

Panel A:					
1% ES	High-sentiment periods (the BW sentiment index is larger than its mean)				
	(1)	(2)	(3)	(4)	(5)
1% ES	-0.1659***	-0.0789***	-0.1250***	-0.0996***	-0.1029***
	(-5.50)	(-3.35)	(-9.45)	(-8.12)	(-8.35)
SIZE			-0.2020***	-0.2290***	-0.2304***
			(-3.91)	(-4.53)	(-4.58)
BM			0.3786***	0.3652***	0.3638***
			(5.69)	(5.61)	(5.57)
MOM			0.0099***	0.0101***	0.0100***
			(5.20)	(5.43)	(5.39)
TURN			0.0171	0.0536	0.0445
			(0.40)	(1.26)	(1.05)
ILLIQ			0.0238	0.0429*	0.0376
			(1.03)	(1.85)	(1.65)
BETA			0.7308***	0.6847**	0.6197**
			(2.79)	(2.52)	(2.26)
COSKEW				-0.6238	-0.6081
				(-1.59)	(-1.55)
MAX			-0.1089***	-0.0419***	-0.0544***
			(-13.57)	(-3.24)	(-4.45)
VOL		-0.3229***		-0.2953***	
		(-8.19)		(-5.97)	
IVOL					-0.2406***
					(-5.53)
Constant	1.6728***	1.8369***	2.7195***	2.7988***	2.8073***
	(7.00)	(7.56)	(7.15)	(7.46)	(7.51)
R-squared	0.028	0.033	0.085	0.093	0.092

Table: IA.12: (continued)

Panel B： 1% ES	Low-sentiment periods (the BW sentiment index is less than its mean)				
	(1)	(2)	(3)	(4)	(5)
1% ES	-0.0081	0.0262	-0.1057***	-0.0915***	-0.0946***
	(-0.29)	(1.22)	(-9.43)	(-8.40)	(-8.78)
SIZE			-0.2950***	-0.3056***	-0.3025***
			(-6.72)	(-7.22)	(-7.21)
BM			0.0968	0.1077*	0.1074*
			(1.52)	(1.71)	(1.71)
MOM			0.0045**	0.0051***	0.0050***
			(2.36)	(2.68)	(2.64)
TURN			-0.0425	-0.0197	-0.0289
			(-0.94)	(-0.45)	(-0.65)
ILLIQ			0.0111	0.0351*	0.0286
			(0.58)	(1.70)	(1.39)
BETA			1.0705***	1.0306***	1.0264***
			(4.27)	(4.02)	(4.04)
COSKEW				-0.8342*	-0.8447*
				(-1.87)	(-1.90)
MAX			-0.0891***	-0.0404***	-0.0552***
			(-11.22)	(-3.39)	(-4.48)
VOL		-0.1447***		-0.2201***	
		(-3.77)		(-4.69)	
IVOL					-0.1504***
					(-3.48)
Constant	0.9606***	1.0374***	2.6012***	2.6520***	2.6033***
	(5.33)	(5.86)	(8.18)	(8.70)	(8.66)
R-squared	0.023	0.028	0.088	0.097	0.097

Table: IA.13: 10% ES and expected returns for different sentiment regimes

The table reports the time-series averages of the slope coefficients and their t-values from the Fama-MacBeth regressions of the excess stock returns on various pricing variables (see the first column) using monthly data from July 1965 to December 2016 in high- and low-sentiment periods.

$$ExR_{i,t+1} = b_{0,t} + b_{1,t}ES_{i,t} + b_{2,t}X_{i,t} + \varepsilon_{i,t+1},$$

where $ExR_{i,t+1}$ is the excess return, which is the difference between the monthly stock return on stock i and the one-month T-bill rate at time $t+1$. $ES_{i,t}$ is ES at 10% for stock i at time t. $X_{i,t}$ is a set of control variables. Significance at the 1%, 5%, and 10% levels is indicated by ***, **, and *, respectively.

Panel A:					
10% ES	High-sentiment periods (the BW sentiment index is larger than its mean)				
	(1)	(2)	(3)	(4)	(5)
10% ES	-0.3611***	-0.1826***	-0.3780***	-0.3233***	-0.3339***
	(-5.16)	(-2.69)	(-9.15)	(-8.11)	(-8.42)
SIZE			-0.2695***	-0.2784***	-0.2804***
			(-5.47)	(-5.75)	(-5.79)
BM			0.3337***	0.3311***	0.3283***
			(5.02)	(5.08)	(5.02)
MOM			0.0099***	0.0101***	0.0100***
			(5.32)	(5.46)	(5.43)
TURN			0.0386	0.0604	0.0528
			(0.89)	(1.40)	(1.24)
ILLIQ			0.0474**	0.0590**	0.0553**
			(2.04)	(2.51)	(2.38)
BETA			0.9686***	0.8840***	0.8579***
			(3.83)	(3.34)	(3.25)
COSKEW				-0.6805*	-0.6683*
				(-1.76)	(-1.73)
MAX			-0.0960***	-0.0487***	-0.0598***
			(-12.01)	(-3.84)	(-4.95)
VOL		-0.2866***		-0.2157***	
		(-8.81)		(-4.52)	
IVOL					-0.1650***
					(-3.94)
Constant	1.9819***	1.9565***	3.4006***	3.3421***	3.3561***
	(7.52)	(7.52)	(8.93)	(8.89)	(8.93)
R-squared	0.035	0.038	0.087	0.094	0.094

Table: IA.13: (continued)

Panel B： 10% ES	Low-sentiment periods (the BW sentiment index is less than its mean)				
	(1)	(2)	(3)	(4)	(5)
10% ES	-0.0078	0.1146*	-0.3304***	-0.2959***	-0.3100***
	(-0.12)	(1.78)	(-8.87)	(-7.84)	(-8.24)
SIZE			-0.3465***	-0.3474***	-0.3453***
			(-8.14)	(-8.45)	(-8.43)
BM			0.0787	0.0934	0.0919
			(1.23)	(1.48)	(1.46)
MOM			0.0047**	0.0051***	0.0051***
			(2.51)	(2.77)	(2.74)
TURN			-0.0226	-0.0122	-0.0207
			(-0.50)	(-0.28)	(-0.47)
ILLIQ			0.0383*	0.0551***	0.0496**
			(1.97)	(2.64)	(2.38)
BETA			1.2545***	1.1946***	1.2145***
			(4.97)	(4.64)	(4.74)
COSKEW				-0.7964*	-0.8125*
				(-1.79)	(-1.83)
MAX			-0.0804***	-0.0456***	-0.0608***
			(-9.98)	(-3.89)	(-4.96)
VOL		-0.2063***		-0.1621***	
		(-6.73)		(-3.54)	
IVOL					-0.0878**
					(-2.06)
Constant	0.9042***	0.8890***	3.1210***	3.0944***	3.0635***
	(5.01)	(4.93)	(9.71)	(10.01)	(9.96)
R-squared	0.031	0.034	0.089	0.098	0.098

Table: IA.14: 1% VaR and expected returns for different sentiment regimes

The table reports the time-series averages of the slope coefficients and their t-values from the Fama-MacBeth regressions of the excess stock returns on various pricing variables (see the first column) using monthly data from July 1965 to December 2016 in high- and low-sentiment periods.

$$ExR_{i,t+1} = b_{0,t} + b_{1,t}VaR_{i,t} + b_{2,t}X_{i,t} + \varepsilon_{i,t+1},$$

where $ExR_{i,t+1}$ is the excess return, which is the difference between the monthly stock return on stock i and the one-month T-bill rate at time $t+1$. $VaR_{i,t}$ is VaR at 1% for stock i at time t. $X_{i,t}$ is a set of control variables. Significance at the 1%, 5%, and 10% levels is indicated by ***, **, and *, respectively.

Panel A:					
1% VaR	High-sentiment periods (the BW sentiment index is larger than its mean)				
	(1)	(2)	(3)	(4)	(5)
1% VaR	-0.2425***	-0.1235***	-0.2256***	-0.1894***	-0.1953***
	(-5.35)	(-3.11)	(-9.72)	(-8.82)	(-9.11)
SIZE			-0.2448***	-0.2618***	-0.2635***
			(-4.90)	(-5.33)	(-5.38)
BM			0.3450***	0.3384***	0.3359***
			(5.19)	(5.19)	(5.13)
MOM			0.0100***	0.0101***	0.0101***
			(5.31)	(5.47)	(5.44)
TURN			0.0245	0.0539	0.0458
			(0.56)	(1.25)	(1.07)
ILLIQ			0.0364	0.0515**	0.0473**
			(1.56)	(2.20)	(2.05)
BETA			0.8595***	0.7848***	0.7474***
			(3.36)	(2.94)	(2.81)
COSKEW				-0.6573*	-0.6449*
				(-1.69)	(-1.66)
MAX			-0.1014***	-0.0454***	-0.0566***
			(-12.73)	(-3.55)	(-4.66)
VOL		-0.2983***		-0.2510***	
		(-8.76)		(-5.25)	
IVOL					-0.2009***
					(-4.77)
Constant	1.8858***	1.9333***	3.1581***	3.1577***	3.1684***
	(7.46)	(7.67)	(8.39)	(8.50)	(8.54)
R-squared	0.032	0.036	0.086	0.093	0.093

Table: IA.14: (continued)

Panel B： 1% VaR	Low-sentiment periods (the BW sentiment index is less than its mean)				
	(1)	(2)	(3)	(4)	(5)
1% VaR	-0.0081	0.0574	-0.1807***	-0.1575***	-0.1645***
	(-0.19)	(1.56)	(-9.09)	(-8.01)	(-8.41)
SIZE			-0.3180***	-0.3234***	-0.3210***
			(-7.36)	(-7.75)	(-7.74)
BM			0.0852	0.0978	0.0968
			(1.33)	(1.54)	(1.53)
MOM			0.0048**	0.0052***	0.0052***
			(2.53)	(2.81)	(2.77)
TURN			-0.0395	-0.0203	-0.0296
			(-0.87)	(-0.47)	(-0.67)
ILLIQ			0.0239	0.0455**	0.0392*
			(1.23)	(2.19)	(1.89)
BETA			1.1596***	1.1121***	1.1141***
			(4.62)	(4.33)	(4.36)
COSKEW				-0.8311*	-0.8415*
				(-1.87)	(-1.89)
MAX			-0.0849***	-0.0403***	-0.0556***
			(-10.59)	(-3.41)	(-4.52)
VOL		-0.1771***		-0.2048***	
		(-5.35)		(-4.42)	
IVOL					-0.1313***
					(-3.05)
Constant	0.9295***	0.9628***	2.8472***	2.8572***	2.8192***
	(5.30)	(5.48)	(8.97)	(9.35)	(9.31)
R-squared	0.027	0.031	0.089	0.098	0.097

Table: IA.15: 5% VaR and expected returns for different sentiment regimes

The table reports the time-series averages of the slope coefficients and their t-values from the Fama-MacBeth regressions of the excess stock returns on various pricing variables (see the first column) using monthly data from July 1965 to December 2016 in high- and low-sentiment periods.

$$ExR_{i,t+1} = b_{0,t} + b_{1,t}VaR_{i,t} + b_{2,t}X_{i,t} + \varepsilon_{i,t+1},$$

where $ExR_{i,t+1}$ is the excess return, which is the difference between the monthly stock return on stock i and the one-month T-bill rate at time $t+1$. $VaR_{i,t}$ is VaR at 5% for stock i at time t. $X_{i,t}$ is a set of control variables. Significance at the 1%, 5%, and 10% levels is indicated by ***, **, and *, respectively.

Panel A:					
5% VaR	High-sentiment periods (the BW sentiment index is larger than its mean)				
	(1)	(2)	(3)	(4)	(5)
5% VaR	-0.3920***	-0.1851**	-0.3994***	-0.3293***	-0.3423***
	(-4.98)	(-2.46)	(-8.59)	(-7.42)	(-7.70)
SIZE			-0.2555***	-0.2665***	-0.2693***
			(-5.13)	(-5.45)	(-5.52)
BM			0.3377***	0.3345***	0.3317***
			(5.06)	(5.10)	(5.05)
MOM			0.0104***	0.0105***	0.0104***
			(5.52)	(5.66)	(5.62)
TURN			0.0221	0.0512	0.0433
			(0.50)	(1.18)	(1.01)
ILLIQ			0.0458**	0.0590**	0.0554**
			(1.99)	(2.52)	(2.41)
BETA			0.9679***	0.8764***	0.8520***
			(3.83)	(3.32)	(3.24)
COSKEW				-0.6791*	-0.6636*
				(-1.75)	(-1.71)
MAX			-0.0982***	-0.0428***	-0.0540***
			(-12.35)	(-3.37)	(-4.45)
VOL		-0.3059***		-0.2520***	
		(-9.41)		(-5.33)	
IVOL					-0.2008***
					(-4.77)
Constant	1.9216***	1.9268***	3.2658***	3.2194***	3.2403***
	(7.29)	(7.39)	(8.53)	(8.51)	(8.59)
R-squared	0.035	0.038	0.087	0.094	0.094

Table: IA.15: (continued)

Panel B: 5% VaR	Low-sentiment periods (the BW sentiment index is less than its mean)				
	(1)	(2)	(3)	(4)	(5)
5% VaR	0.0001	0.1444**	-0.3457***	-0.2968***	-0.3119***
	(0.00)	(2.01)	(-8.26)	(-7.12)	(-7.48)
SIZE			-0.3327***	-0.3346***	-0.3331***
			(-7.78)	(-8.12)	(-8.13)
BM			0.0865	0.1007	0.0994
			(1.36)	(1.60)	(1.58)
MOM			0.0051***	0.0055***	0.0055***
			(2.72)	(2.96)	(2.94)
TURN			-0.0382	-0.0212	-0.0304
			(-0.85)	(-0.49)	(-0.70)
ILLIQ			0.0340*	0.0529**	0.0471**
			(1.74)	(2.53)	(2.26)
BETA			1.2417***	1.1833***	1.1891***
			(4.93)	(4.61)	(4.66)
COSKEW				-0.7857*	-0.8006*
				(-1.76)	(-1.80)
MAX			-0.0820***	-0.0393***	-0.0549***
			(-10.18)	(-3.38)	(-4.48)
VOL		-0.2208***		-0.2007***	
		(-7.21)		(-4.49)	
IVOL					-0.1253***
					(-2.96)
Constant	0.8593***	0.8584***	2.9965***	2.9775***	2.9505***
	(4.70)	(4.70)	(9.23)	(9.54)	(9.53)
R-squared	0.031	0.034	0.089	0.098	0.098

Table: IA.16: 10% VaR and expected returns for different sentiment regimes

The table reports the time-series averages of the slope coefficients and their t-values from the Fama-MacBeth regressions of the excess stock returns on various pricing variables (see the first column) using monthly data from July 1965 to December 2016 in high- and low-sentiment periods.

$$ExR_{i,t+1} = b_{0,t} + b_{1,t}VaR_{i,t} + b_{2,t}X_{i,t} + \varepsilon_{i,t+1},$$

where $ExR_{i,t+1}$ is the excess return, which is the difference between the monthly stock return on stock i and the one-month T-bill rate at time $t+1$. $VaR_{i,t}$ is VaR at 10% for stock i at time t. $X_{i,t}$ is a set of control variables. Significance at the 1%, 5%, and 10% levels is indicated by ***, **, and *, respectively.

Panel A:					
10% VaR	High-sentiment periods (the BW sentiment index is larger than its mean)				
	(1)	(2)	(3)	(4)	(5)
10% VaR	-0.5033***	-0.2297**	-0.5034***	-0.4044***	-0.4216***
	(-4.83)	(-2.30)	(-8.08)	(-6.77)	(-7.05)
SIZE			-0.2429***	-0.2551***	-0.2583***
			(-4.86)	(-5.19)	(-5.28)
BM			0.3491***	0.3441***	0.3417***
			(5.22)	(5.25)	(5.19)
MOM			0.0103***	0.0104***	0.0103***
			(5.52)	(5.68)	(5.64)
TURN			0.0202	0.0521	0.0441
			(0.46)	(1.19)	(1.02)
ILLIQ			0.0472**	0.0603**	0.0568**
			(2.03)	(2.55)	(2.43)
BETA			0.9638***	0.8702***	0.8440***
			(3.82)	(3.30)	(3.21)
COSKEW				-0.6763*	-0.6590*
				(-1.74)	(-1.70)
MAX			-0.0995***	-0.0402***	-0.0514***
			(-12.52)	(-3.19)	(-4.26)
VOL		-0.3131***		-0.2700***	
		(-9.59)		(-5.83)	
IVOL					-0.2189***
					(-5.28)
Constant	1.8509***	1.8886***	3.1244***	3.0883***	3.1102***
	(7.04)	(7.26)	(8.15)	(8.15)	(8.24)
R-squared	0.035	0.038	0.087	0.094	0.094

Table: IA.16: (continued)

Panel B： 10% VaR	Low-sentiment periods (the BW sentiment index is less than its mean)				
	(1)	(2)	(3)	(4)	(5)
10% VaR	-0.0080	0.1768*	-0.4627***	-0.3943***	-0.4163***
	(-0.08)	(1.84)	(-8.15)	(-6.90)	(-7.27)
SIZE			-0.3318***	-0.3339***	-0.3329***
			(-7.79)	(-8.13)	(-8.16)
BM			0.0949	0.1086*	0.1073*
			(1.49)	(1.72)	(1.71)
MOM			0.0049***	0.0053***	0.0053***
			(2.62)	(2.87)	(2.85)
TURN			-0.0410	-0.0238	-0.0335
			(-0.91)	(-0.55)	(-0.77)
ILLIQ			0.0358*	0.0543**	0.0485**
			(1.82)	(2.59)	(2.31)
BETA			1.2523***	1.1936***	1.2000***
			(5.00)	(4.67)	(4.73)
COSKEW				-0.7756*	-0.7893*
				(-1.74)	(-1.77)
MAX			-0.0820***	-0.0382***	-0.0540***
			(-10.14)	(-3.28)	(-4.42)
VOL		-0.2151***		-0.2063***	
		(-6.81)		(-4.61)	
IVOL					-0.1289***
					(-3.02)
Constant	0.8690***	0.8777***	2.9635***	2.9491***	2.9247***
	(4.76)	(4.81)	(9.20)	(9.53)	(9.54)
R-squared	0.031	0.034	0.089	0.098	0.098

Table IA.17: 5% ES and expected returns for different sentiment regimes

The table reports the time-series averages of the slope coefficients and their t-values from the Fama-MacBeth regressions of excess stock returns on various pricing variables (see first column) using monthly data from July 1965 to December 2016 in high- and low-sentiment periods.

$$ExR_{i,t+1} = b_{0,t} + b_{1,t}ES_{i,t} + b_{2,t}X_{i,t} + \varepsilon_{i,t+1},$$

where $ExR_{i,t+1}$ is the excess return, which is the difference between the monthly stock return on stock i and the one-month T-bill rate at time $t+1$; $ES_{i,t}$is ES at 5% for stock i at time t; and $X_{i,t}$ is a set of control variables. Significance at the 1%, 5%, and 10% levels is indicated by ***, **, and *, respectively.

Panel A: 5% ES	High-sentiment periods (the BW sentiment index is larger than one standard deviation above its mean)				
	(1)	(2)	(3)	(4)	(5)
5% ES	-0.4739***	-0.2558**	-0.2713***	-0.2531***	-0.2603***
	(-3.75)	(-2.19)	(-4.63)	(-4.71)	(-4.77)
SIZE			-0.1621*	-0.1703**	-0.1713**
			(-1.95)	(-2.09)	(-2.12)
BM			0.3368**	0.3417***	0.3370***
			(2.61)	(2.71)	(2.68)
MOM			0.0088*	0.0090**	0.0089**
			(1.96)	(2.05)	(2.02)
TURN			0.2391**	0.2588***	0.2494***
			(2.57)	(2.82)	(2.73)
ILLIQ			0.0257	0.0347	0.0304
			(0.55)	(0.73)	(0.67)
BETA			-0.0812	-0.2213	-0.2463
			(-0.16)	(-0.42)	(-0.46)
COSKEW				0.4058	0.4225
				(0.50)	(0.52)
MAX			-0.1453***	-0.1283***	-0.1341***
			(-9.62)	(-5.14)	(-5.44)
VOL		-0.4250***		-0.0718	
		(-7.12)		(-0.79)	
IVOL					-0.0448
					(-0.51)
Constant	2.2233***	2.1413***	2.8245***	2.8062***	2.8384***
	(4.32)	(4.19)	(4.43)	(4.51)	(4.57)
R-squared	0.056	0.059	0.113	0.122	0.122

Table IA.17: (continued)

Panel B: 5% ES	Low-sentiment periods (the BW sentiment index is less than one standard deviation below its mean)				
	(1)	(2)	(3)	(4)	(5)
5% ES	0.1610	0.2571**	-0.2745***	-0.2698***	-0.2768***
	(1.37)	(2.35)	(-5.29)	(-5.36)	(-5.41)
SIZE			-0.5466***	-0.5327***	-0.5284***
			(-5.61)	(-5.68)	(-5.66)
BM			0.3559**	0.3648**	0.3639**
			(2.26)	(2.33)	(2.33)
MOM			0.0050	0.0058	0.0058
			(1.13)	(1.35)	(1.35)
TURN			-0.1090	-0.1200	-0.1266
			(-1.09)	(-1.22)	(-1.25)
ILLIQ			0.0224	0.0518	0.0406
			(0.47)	(1.01)	(0.78)
BETA			1.8498***	1.8507***	1.8716***
			(4.44)	(4.35)	(4.40)
COSKEW				-0.9467	-0.9594
				(-1.35)	(-1.38)
MAX			-0.1376***	-0.1214***	-0.1350***
			(-9.10)	(-5.14)	(-5.18)
VOL		-0.1990***		-0.0640	
		(-2.99)		(-0.64)	
IVOL					0.0034
					(0.03)
Constant	0.4892	0.4888	3.7706***	3.6606***	3.6221***
	(1.31)	(1.31)	(5.39)	(5.43)	(5.46)
R-squared	0.036	0.039	0.111	0.118	0.118

Table IA.18: 5% VaR and expected returns for different sentiment regimes

The table reports the time-series averages of the slope coefficients and their t-values from the Fama-MacBeth regressions of excess stock returns on various pricing variables (see first column) using monthly data from July 1965 to December 2016 in high- and low-sentiment periods.

$$ExR_{i,t+1} = b_{0,t} + b_{1,t}VaR_{i,t} + b_{2,t}X_{i,t} + \varepsilon_{i,t+1},$$

where $ExR_{i,t+1}$ is the excess return, which is the difference between the monthly stock return on stock i and the one-month T-bill rate at time $t+1$; $VaR_{i,t}$is VaR at 5% for stock i at time t; and $X_{i,t}$ is a set of control variables. Significance at the 1%, 5%, and 10% levels is indicated by ***, **, and *, respectively.

Panel A: 5% VaR	High-sentiment periods (the BW sentiment index is larger than one standard deviation above its mean)				
	(1)	(2)	(3)	(4)	(5)
5% VaR	-0.6604***	-0.3659**	-0.3753***	-0.3365***	-0.3473***
	(-3.62)	(-2.08)	(-3.83)	(-3.66)	(-3.77)
SIZE			-0.1606*	-0.1671**	-0.1690**
			(-1.97)	(-2.08)	(-2.13)
BM			0.3296**	0.3358***	0.3306**
			(2.55)	(2.66)	(2.62)
MOM			0.0096**	0.0098**	0.0096**
			(2.15)	(2.25)	(2.22)
TURN			0.2326**	0.2529***	0.2433***
			(2.48)	(2.73)	(2.64)
ILLIQ			0.0296	0.0399	0.0360
			(0.62)	(0.82)	(0.78)
BETA			0.0157	-0.1514	-0.1715
			(0.03)	(-0.29)	(-0.33)
COSKEW				0.3801	0.4044
				(0.47)	(0.50)
MAX			-0.1436***	-0.1230***	-0.1288***
			(-9.35)	(-5.03)	(-5.35)
VOL		-0.4072***		-0.0898	
		(-7.03)		(-1.03)	
IVOL					-0.0644
					(-0.77)
Constant	2.2526***	2.1698***	2.7916***	2.7528***	2.7909***
	(4.33)	(4.19)	(4.35)	(4.39)	(4.47)
R-squared	0.059	0.063	0.114	0.123	0.123

Table IA.18: (continued)

Panel B： 5% VaR	Low-sentiment periods (the BW sentiment index is less than one standard deviation below its mean)				
	(1)	(2)	(3)	(4)	(5)
5% VaR	0.2648	0.4384***	-0.3437***	-0.3229***	-0.3378***
	(1.59)	(2.74)	(-4.16)	(-4.01)	(-4.14)
SIZE			-0.5343***	-0.5209***	-0.5191***
			(-5.47)	(-5.55)	(-5.57)
BM			0.3637**	0.3712**	0.3698**
			(2.31)	(2.37)	(2.38)
MOM			0.0055	0.0063	0.0063
			(1.23)	(1.46)	(1.45)
TURN			-0.1214	-0.1271	-0.1350
			(-1.23)	(-1.29)	(-1.34)
ILLIQ			0.0189	0.0510	0.0395
			(0.38)	(0.97)	(0.74)
BETA			1.8507***	1.8507***	1.8651***
			(4.35)	(4.28)	(4.30)
COSKEW				-0.9305	-0.9461
				(-1.33)	(-1.37)
MAX			-0.1396***	-0.1130***	-0.1284***
			(-9.16)	(-4.82)	(-4.92)
VOL		-0.2595***		-0.1159	
		(-3.92)		(-1.19)	
IVOL					-0.0401
					(-0.39)
Constant	0.3504	0.3395	3.6389***	3.5390***	3.5178***
	(0.93)	(0.90)	(5.07)	(5.14)	(5.20)
R-squared	0.037	0.041	0.111	0.118	0.119

Table IA.19: 5% ES and expected risk-adjusted returns for different sentiment regimes

The table reports the time-series averages of the slope coefficients and their t-values from the Fama-MacBeth regressions of the risk-adjusted returns on various pricing variables (see the first column) using monthly data from July 1965 to December 2015 in high- and low-sentiment periods.

$$RA_{i,t+1} = b_{0,t} + b_{1,t}ES_{i,t} + b_{2,t}X_{i,t} + \varepsilon_{i,t+1},$$

where $RA_{i,t+1}$ is the return adjusted for the Fama-French three factors and tail risk. $ES_{i,t}$ is ES at 5% for stock i at time t. $X_{i,t}$ is a set of control variables. For columns (1)-(3), the Fama-MacBeth regressions only run for high-sentiment periods, which are defined as those months when the BW sentiment index is larger than its mean. For columns (4)-(6), the Fama-MacBeth regressions only run for low-sentiment periods, which are defined as those months when the BW sentiment index is less than its mean. Significance at the 1%, 5%, and 10% levels is indicated by ***, **, and *, respectively.

Panel A：5% ES	High-sentiment periods			Low-sentiment periods		
	(1)	(2)	(3)	(4)	(5)	(6)
5% ES	-0.1380***	-0.0919***	-0.0777***	-0.0769***	-0.0762***	-0.0687***
	(-5.16)	(-3.20)	(-2.76)	(-3.23)	(-3.01)	(-2.80)
SIZE		-0.1528***	-0.1560***		-0.1503***	-0.1527***
		(-7.10)	(-7.28)		(-7.92)	(-8.03)
BM		0.0739	0.0745		-0.0062	-0.0034
		(1.43)	(1.45)		(-0.14)	(-0.08)
MOM		0.0091***	0.0093***		0.0065***	0.0067***
		(4.89)	(4.96)		(3.60)	(3.76)
TURN		0.1671***	0.1776***		0.1033**	0.1115***
		(4.02)	(4.30)		(2.46)	(2.69)
ILLIQ		0.0301	0.0336		0.0099	0.0172
		(1.30)	(1.45)		(0.49)	(0.82)
BETA		-0.0982***	-0.0774***		-0.0880***	-0.0688***
		(-13.25)	(-6.20)		(-11.26)	(-5.35)
MAX			-0.0980**			-0.0870*
			(-2.17)			(-1.71)
VOL		-0.1528***	-0.1560***		-0.1503***	-0.1527***
		(-7.10)	(-7.28)		(-7.92)	(-8.03)
Constant	0.6916***	1.6043***	1.6322***	0.3998***	1.5252***	1.5479***
	(4.92)	(7.19)	(7.37)	(3.24)	(7.29)	(7.35)
R-squared	0.008	0.030	0.031	0.007	0.029	0.031