Internet Appendix: Anderson and Core Table 4, Panels A and B showing coefficients on control variables

Comparison of the association between vega and the sensitivity measures and future risk choices

This table presents OLS regression results using unscaled (columns 1 to 6) and scaled (columns 7 to 12) incentive variables. Incentive variables and controls are measured in year *t*. The dependent variables are measured in year *t+1*. The incentive variables are described in Appendix A, and control and dependent variables are described in Appendix B. Variables are standardized to have a mean of zero and standard deviation of one. All regressions include year and 2-digit SIC industry fixed effects. The t-statistics reported in parentheses are based on robust standard errors clustered by both firm and year. To compute the standard error of the difference between the coefficients on the sensitivity and vega, we use a stacked regression model. ***, **, and * indicate significance at the 1, 5, and 10% levels, respectively.

	ln(Stock Volatility) (1)	*ln(Asset Volatility)* (2)	*R&D Expense* (3)	*-CAPEX* (4)	*Herfindahl Index* (5)	*Book Leverage* (6)	*ln(Stock Volatility)* (7)	*ln(Asset Volatility)* (8)	*R&D Expense* (9)	*-CAPEX* (10)	*Herfindahl Index* (11)	*Book Leverage* (12)
Panel A: Vega												
CEO Tenure	-0.019	-0.057***	-0.036**	-0.007	-0.007	0.027	-0.018	-0.037**	0.021	0.007	0.008	0.008
	(-1.55)	(-4.32)	(-2.09)	(-0.49)	(-0.32)	(1.53)	(-1.42)	(-2.21)	(1.32)	(0.47)	(0.33)	(0.48)
Cash	-0.003	0.000	0.004	0.026	-0.024	0.002	-0.025**	-0.016	0.013	0.029	-0.028	-0.010
Compensation	(-0.21)	(0.02)	(0.27)	(1.28)	(-1.07)	(0.13)	(-2.23)	(-0.82)	(0.94)	(1.40)	(-1.29)	(-0.67)
ln(Sales)	-0.346***	-0.444***	-0.331***	-0.002	-0.234***	0.139***	-0.273***	-0.304***	-0.243***	0.015	-0.208***	0.104**
	(-13.11)	(-14.69)	(-10.18)	(-0.11)	(-7.57)	(2.82)	(-9.86)	(-10.04)	(-9.49)	(0.72)	(-6.91)	(2.14)
Market-to-Book	-0.130***	-0.010	-0.010	-0.092***	0.117***	0.024	-0.032	0.144***	0.063	-0.079***	0.147***	0.007
	(-4.82)	(-0.24)	(-0.28)	(-4.92)	(5.62)	(0.73)	(-1.31)	(3.33)	(1.59)	(-3.78)	(6.90)	(0.21)
Book Leverage	0.105***	-0.165***	0.014	0.065***	0.024		0.100***	-0.171***	0.018	0.067***	0.025	
	(4.56)	(-6.84)	(0.62)	(3.30)	(1.10)		(4.56)	(-7.68)	(0.80)	(3.40)	(1.15)	
R&D Expense	0.080***	0.086***			0.106***	-0.124***	0.065**	0.064***			0.096***	-0.124***
	(3.91)	(4.50)			(4.07)	(-4.53)	(2.44)	(3.26)			(3.59)	(-4.64)
CAPEX	0.023	-0.003			0.056***		0.017	-0.012			0.055**	
	(1.53)	(-0.14)			(2.58)		(1.28)	(-0.52)			(2.55)	
Surplus Cash			0.325***	-0.027*					0.323***	-0.028*		
			(8.83)	(-1.78)					(9.09)	(-1.88)		
ln(Sales			-0.036*	-0.064***	0.005				-0.028	-0.062***	0.006	
Growth)			(-1.74)	(-5.00)	(0.44)				(-1.40)	(-4.84)	(0.57)	
Return			-0.065	-0.019***	-0.018				-0.026	-0.012	0.001	
			(-1.47)	(-2.79)	(-0.46)				(-0.76)	(-1.50)	(0.02)	
ROA					0.015	0.076**					0.023	0.076**
					(0.83)	(2.29)					(1.23)	(2.24)
Dividend Cut					-0.014						-0.015	
					(-1.53)						(-1.53)	
Turnover					-0.002						-0.003	
					(-0.14)						(-0.28)	
PPE						0.093***						0.095***
						(3.00)						(3.08)
Mod. Z-Score						-0.348***						-0.340***
						(-10.47)						(-10.32)

	ln(Stock Volatility) (1)	*ln(Asset Volatility)* (2)	*R&D Expense* (3)	*-CAPEX* (4)	*Herfindahl Index* (5)	*Book Leverage* (6)	*ln(Stock Volatility)* (7)	*ln(Asset Volatility)* (8)	*R&D Expense* (9)	*-CAPEX* (10)	*Herfindahl Index* (11)	*Book Leverage* (12)
Rating						0.261***						0.264***
						(6.67)						(6.73)
Total Wealth							0.017	0.092***	0.091***	0.003	0.001	-0.081***
							(1.02)	(5.22)	(5.66)	(0.20)	(0.06)	(-3.65)
Delta / Total Wealth							-0.282***	-0.394***	-0.166***	-0.030	-0.094***	-0.002
							(-7.96)	(-6.29)	(-6.32)	(-1.64)	(-3.01)	(-0.08)
Vega	-0.088***	0.001	0.136***	0.039***	0.009	-0.082***						
	(-3.80)	(0.05)	(4.68)	(2.94)	(0.38)	(-4.47)						
Vega / Total Wealth							0.047***	0.148***	0.257***	0.063***	0.077***	-0.050**
							(2.78)	(4.14)	(6.97)	(3.64)	(2.77)	(-2.05)
Observations	8,600	7,797	8,192	8,189	7,849	8,104	8,600	7,797	8,192	8,189	7,849	8,104
R-squared	0.550	0.380	0.479	0.456	0.217	0.382	0.583	0.439	0.497	0.457	0.221	0.379
Panel B: Sensitivity												
CEO Tenure	-0.024*	-0.064***	-0.033*	-0.006	-0.008	-0.003	0.003	-0.021	-0.000	0.005	0.002	0.011
	(-1.92)	(-4.86)	(-1.93)	(-0.47)	(-0.35)	(-0.23)	(0.23)	(-1.51)	(-0.01)	(0.38)	(0.10)	(0.66)
Cash Compensation	-0.018	-0.025	0.005	0.023	-0.029	-0.047***	-0.025**	-0.011	0.027	0.032	-0.024	0.008
	(-1.55)	(-1.44)	(0.28)	(1.14)	(-1.32)	(-3.23)	(-2.40)	(-0.65)	(1.63)	(1.53)	(-1.12)	(0.62)
ln(Sales)	-0.386***	-0.480***	-0.305***	0.001	-0.240***	0.060	-0.265***	-0.300***	-0.266***	0.011	-0.212***	0.071
	(-14.09)	(-18.97)	(-9.78)	(0.07)	(-7.99)	(1.33)	(-9.99)	(-11.40)	(-9.54)	(0.56)	(-7.05)	(1.61)
Market-to-Book	-0.139***	-0.011	0.001	-0.089***	0.117***	0.030	0.005	0.169***	0.034	-0.081***	0.140***	0.038
	(-4.81)	(-0.26)	(0.02)	(-4.72)	(5.64)	(0.94)	(0.24)	(4.68)	(0.86)	(-4.12)	(6.95)	(1.24)
Book Leverage	0.111***	-0.182***	-0.009	0.057***	0.018		0.027	-0.275***	-0.051**	0.042**	0.001	
	(4.20)	(-6.98)	(-0.36)	(2.75)	(0.85)		(1.14)	(-15.29)	(-2.29)	(2.05)	(0.06)	
R&D Expense	0.065***	0.071***			0.104***	-0.122***	0.046*	0.054***			0.104***	-0.110***
	(3.08)	(3.73)			(4.00)	(-5.00)	(1.84)	(2.98)			(4.08)	(-4.73)
CAPEX	0.025*	0.000			0.056**		0.023*	-0.003			0.056**	
	(1.68)	(0.02)			(2.58)		(1.92)	(-0.12)			(2.55)	
Surplus Cash			0.334***	-0.025					0.338***	-0.024		
			(9.31)	(-1.62)					(9.41)	(-1.60)		
ln(Sales Growth)			-0.039*	-0.065***	0.005				-0.032	-0.062***	0.006	
			(-1.82)	(-5.10)	(0.42)				(-1.53)	(-4.89)	(0.48)	
Return			-0.073	-0.022***	-0.019				-0.062*	-0.019***	-0.009	
			(-1.60)	(-3.34)	(-0.49)				(-1.91)	(-3.37)	(-0.25)	
ROA					0.017	0.082**					0.023	0.085***
					(0.91)	(2.55)					(1.26)	(2.79)
Dividend Cut					-0.014						-0.017*	
					(-1.51)						(-1.82)	

	ln(Stock Volatility) (1)	*ln(Asset Volatility)* (2)	*R&D Expense* (3)	*-CAPEX* (4)	*Herfindahl Index* (5)	*Book Leverage* (6)	*ln(Stock Volatility)* (7)	*ln(Asset Volatility)* (8)	*R&D Expense* (9)	*-CAPEX* (10)	*Herfindahl Index* (11)	*Book Leverage* (12)
Turnover					-0.000						-0.004	
					(-0.03)						(-0.31)	
PPE						0.092***						0.070**
						(3.30)						(2.45)
Mod. Z-Score						-0.284***						-0.244***
						(-9.47)						(-7.14)
Rating						0.247***						0.272***
						(7.68)						(13.07)
Delta	-0.003	0.014	0.026	-0.021	-0.020	-0.124***						
	(-0.20)	(0.75)	(1.60)	(-1.32)	(-0.84)	(-4.76)						
Total Wealth							0.044***	0.113***	0.068***	0.002	-0.004	-0.038*
							(2.66)	(5.81)	(4.74)	(0.11)	(-0.19)	(-1.88)
Delta / Total Wealth							-0.342***	-0.417***	-0.056**	-0.014	-0.064**	-0.029*
							(-8.78)	(-11.47)	(-2.49)	(-0.89)	(-2.45)	(-1.94)
Total Sensitivity	0.001	0.122***	0.108***	0.045***	0.032							
	(0.06)	(5.99)	(3.60)	(3.12)	(1.24)							
Financing Sens.						0.271***						
						(11.28)						
Tot. Sens. / Tot. Wealth							0.198***	0.276***	0.168***	0.065***	0.057**	
							(14.32)	(10.76)	(5.67)	(3.20)	(2.13)	
Fin. Sens. / Tot. Wealth												0.322***
												(2.85)
Observations	8,600	7,797	8,192	8,189	7,849	8,104	8,600	7,797	8,192	8,189	7,849	8,104
R-squared	0.546	0.389	0.475	0.456	0.218	0.428	0.604	0.471	0.483	0.457	0.220	0.457
Diff. in Coefficients	0.089***	0.120***	-0.028**	0.007	0.023	0.353***	0.151***	0.128***	-0.087***	0.002	-0.020	0.372***
t-statistic	(4.94)	(5.95)	(-2.27)	(0.52)	(1.15)	(10.12)	(7.07)	(2.97)	(-5.04)	(0.10)	(-0.92)	(3.45)
Avg. diff. in coeff. excluding Fin. Sens.				0.042***					0.034**			
t-statistic				(4.64)					(2.52)			
Avg. diff. in coeff. including Fin. Sens.				0.094***					0.091***			
t-statistic				(9.65)					(4.08)			