

Appendix Table 1

Panel A and Panel B of Appendix Table 1 present the Pearson correlations of some of the main dependent and independent variables for the fraud and error samples respectively (Spearman correlations (unreported) are similar to those reported).

FRAUD is a dummy variable that equals 1 in the years a firm committed accounting fraud, and 0 otherwise; RECORD is a dummy variable that equals 1 if a CEO was convicted of any legal infractions prior to the year of fraud initiation, 0 otherwise; FRUGAL is a dummy variable that equals 1 if a CEO does not own a boat, a car worth more than \$75,000, a primary residence worth more than twice the average of median home prices in the zip codes within fifteen miles of his corporate headquarters, or additional homes worth more than twice the average home price in the corresponding metropolitan area prior to the year of fraud initiation, 0 otherwise; TOBIN'S_Q is the market value of assets divided by the book value of assets; ROA is the prior year's operating income before depreciation divided by the firm's average total assets, adjusted for the industry median; %IND_FRAUD is the number of fraud firms in the firm's 2 digit SIC code divided by the total number of firms in that 2 digit SIC code that year; MEDIA_FIRM is the number of articles on the firm in the year; MEDIA_CEO is the number of articles on the CEO in the year; WEALTH is the log of the fair value of the CEO's wealth derived from stock and options from the firm plus other compensation received over the previous 3 years; PERKS is the average value of all perquisites received by the CEO in the past 3 years; FSCORE is the output from the predictive model for accounting manipulations reported in Dechow et al. (2011); ERROR is a dummy variable that equals 1 for the years a firm had a material clerical error in reported numbers; IC_WEAKNESS is the fitted score using a modified version of the model in Doyle et al. (2007); IC_WEAKNESS_START is the fitted score in the first year of a CEO's tenure using a modified version of the model in Doyle et al. (2007); SIZE is the log of market capitalization of the firm; FIRM_AGE is the logarithm of the number of years the firm has been on CRSP; LOSS is a dummy variable that equals 1 if net income is negative in the current quarter; FOREIGN is a dummy variable that equals 1 if the firm has foreign currency transactions; ACQUISITION is the sum of acquisitions over the past two years scaled by the market capitalization of prior year; SALES_GROWTH is a dummy variable that equals 1 if the industry-adjusted growth in sales over the last year is in the top quintile; RESTRUCTURE is the sum of restructuring charges over the past two years scaled by the market capitalization of the prior year; # SEGMENTS is the logarithm of the number of operating and geographic segments for the firm.

Appendix Table 1, Panel A
Pearson Correlations for Fraud Sample

	FRAUD RECORD	FRUGAL	TOBINS Q	ROA	% IND FRAUD	MEDIA FIRM	MEDIA EXEC	WEALTH	PERKS	F-Score	
FRAUD RECORD	1										
FRUGAL	0.09 ***	1									
TOBINS Q	-0.01	-0.04 **	1								
ROA	0.08 *	0.06 **	0.06 ***	1							
% IND FRAUD	0.05 **	0.00	-0.04	0.36 ***	1						
MEDIA FIRM	0.03	0.08 ***	0.06 ***	0.01	-0.05 **	1					
MEDIA EXEC	0.15 ***	0.00	0.03	0.17 ***	0.05 *	0.13 ***	1				
WEALTH	0.05 *	-0.04	-0.08 ***	0.00	0.04	0.14 ***	0.36 ***	1			
PERKS	0.06 **	0.07 **	0.04	0.28 ***	0.08 ***	0.01	0.26 ***	0.07 **	1		
F-Score	0.05	-0.03	-0.05	-0.08 **	-0.06 *	0.01	0.20 ***	0.13 ***	0.09 **	1	
F-Score	0.07 ***	0.13 ***	0.05	0.09 ***	-0.03	-0.03	0.03	-0.01	-0.04	-0.04	1

***Significant at the 1% level; **5% level; *10% level

Appendix Table 2

This table presents comparative descriptive statistics for the fraud firm sample, error firm sample, and the universe of Compustat firms over the sample period

The variables are defined as follows: SIZE is the log of market capitalization of the firm; MTB is the market value of equity divided by the book value of equity; TOBIN'S_Q is the market value of assets divided by the book value of assets; ROA is the prior year's operating income before depreciation divided by the firm's average total assets, adjusted for the industry median.

Appendix Table 2
Descriptive Statistics

	Fraud Firms			Compustat Population		
	Mean	Median	Std. Dev.	Mean	Median	Std. Dev.
SIZE	7.05	6.90	2.10	4.70 ***	4.66 ***	2.36
MTB	1.70	0.95	2.45	5.04	0.83	146.36
TOBINS Q	2.62	1.89	2.41	5.98	1.82	137.05
ROA	0.05	0.04	0.11	-0.36	0.08 ***	6.99
	Error Firms			Compustat Population		
	Mean	Median	Std. Dev.	Mean	Median	Std. Dev.
SIZE	6.59	6.55	1.43	4.70 ***	4.66 ***	2.36
MTB	2.36	2.12	5.55	5.04	0.83	146.36
TOBINS Q	3.16	2.12	3.65	5.98	1.82	137.05
ROA	0.07	0.07	0.13	-0.36	0.08	6.99

***Significant at the 1% level; **5% level; *10% level

Appendix Table 3

This table presents results from the first stage of Bivariate Probit and OLS Instrument Variables analysis of CEO frugality and firm characteristics.

The variables are defined as follows: FRUGAL is a dummy variable that equals 1 if a CEO does not own a boat, a car worth more than \$75,000, a primary residence worth more than twice the average of median home prices in the zip codes within fifteen miles of his corporate headquarters, or additional homes worth more than twice the average home price in the corresponding metropolitan area prior to the year of fraud initiation, 0 otherwise; RECORD is a dummy variable that equals 1 if a CEO was convicted of any legal infractions prior to the year of fraud initiation, 0 otherwise; TOBIN'S_Q is the market value of assets divided by the book value of assets; ROA is the prior year's operating income before depreciation divided by the firm's average total assets, adjusted for the industry median; %IND_FRAUD is the number of fraud firms in the firm's 2 digit SIC code divided by the total number of firms in that 2 digit SIC code that year; MEDIA_FIRM is the number of articles on the firm in the year; FSCORE is the output from the predictive model for accounting manipulations reported in Dechow et al. (2011); CASH is total cash scaled by total assets at the beginning of the year.

Appendix Table 3
1st Stage Bivariate Probit and Instrument Variables Analysis:
Other Individual Named in Fraud

	Dependent Variable: Frugal					
	Biprobit	OLS IV	Biprobit	OLS IV	Biprobit	OLS IV
RECORD	-0.078 (-0.80)	-0.029 (-0.77)	-0.065 (-0.56)	-0.027 (-0.60)	0.224 * (1.84)	0.085 * (1.87)
TOBINS Q	-0.037 * (-1.89)	-0.013 * (-1.90)	-0.021 (-0.92)	-0.009 (-1.19)	-0.029 (-1.33)	-0.011 (-1.41)
ROA	0.001 (0.35)	0.001 (0.49)	-0.007 * (-1.79)	-0.002 (-1.62)	0.004 (1.23)	0.002 (1.39)
% INDUSTRY FRAUD	0.211 *** (4.32)	0.068 *** (4.36)	0.243 *** (3.92)	0.087 *** (4.02)	0.22 *** (3.40)	0.069 *** (3.38)
MEDIA FIRM			0.002 (0.32)	0.001 (0.21)		
F-SCORE					0.026 (0.95)	0.007 (0.84)
CASH	2.19 *** (9.81)	0.757 *** (10.11)	1.925 *** (7.28)	0.692 *** (7.53)	2.012 *** (7.94)	0.718 *** (8.22)
INTERCEPT	-0.179 *** (-3.18)	0.439 *** (21.53)	-0.19 *** (-2.68)	0.434 *** (17.02)	-0.324 *** (-3.82)	0.389 *** (13.18)
OBSERVATIONS	1661	1661	1062	1062	1060	1060
CENTERED R-SQUARED		0.07		0.08		0.08
UNCENTERED R-SQUARED		0.58		0.58		0.68
PARTIAL CORRELATION		0.24***		0.22***		0.25***
SEMI PARTIAL CORRELATION		0.24***		0.22***		0.24***

***Significant at the 1% level; **5% level; *10% level

Appendix Table 4

This table presents results from the first stage of Bivariate Probit and OLS Instrument Variables analysis of CEO frugality and firm characteristics.

The variables are defined as follows: FRUGAL is a dummy variable that equals 1 if a CEO does not own a boat, a car worth more than \$75,000, a primary residence worth more than twice the average of median home prices in the zip codes within fifteen miles of his corporate headquarters, or additional homes worth more than twice the average home price in the corresponding metropolitan area prior to the year of fraud initiation, 0 otherwise; RECORD is a dummy variable that equals 1 if a CEO was convicted of any legal infractions prior to the year of fraud initiation, 0 otherwise; IC_WEAKNESS/ IC_WEAKNESS_START is the fitted score using a modified version of the model in Doyle et al. (2007) for the current period or in the first year of tenure of the CEO; SIZE is the log of the market capitalization of the firm; FIRM_AGE is the logarithm of the number of years the firm has been on CRSP; LOSS is a dummy variable that equals 1 if net income is negative in the current quarter; FOREIGN is a dummy variable that equals 1 if the firm has foreign currency transactions; ACQUISITION is the sum of acquisitions over the past two years scaled by the market capitalization of prior year; SALES_GROWTH is a dummy variable that equals 1 if the industry-adjusted growth in sales over the last year is in the top quintile; RESTRUCTURE is the sum of restructuring charges over the past two years scaled by the market capitalization of the prior year; # SEGMENTS is the logarithm of the number of operating and geographic segments the firm has. R&D is research and development expense scaled by total assets.

Appendix Table 4
1st Stage Bivariate Probit and Instrument Variables Analysis:
Restatements Due to Error

	Dependent Variable: Frugal					
	Biprobit	OLS IV	Biprobit	OLS IV	Biprobit	OLS IV
RECORD	-0.035 (-0.32)	-0.009 (-0.22)	-0.019 (-0.17)	-0.001 (-0.02)	-0.024 (-0.22)	-0.009 (-0.21)
IC WEAKNESS	0.177 ** (2.54)	0.069 ** (2.52)				
IC WEAKNESS START			0.194 *** (2.69)	0.048 *** (3.03)		
SIZE					0.009 (0.46)	0.006 (0.72)
FIRM AGE					-0.116 *** (-3.52)	-0.044 *** (-3.47)
LOSS					-0.314 *** (-3.63)	-0.118 *** (-3.58)
FOREIGN					0.2 ** (2.59)	0.081 *** (2.79)
ACQUISITIONS					0.489 ** (2.66)	0.153 *** (2.76)
SALES GROWTH					0.028 (0.40)	0.009 (0.35)
RESTRUCTURE					2.379 *** (3.28)	0.959 ** (2.08)
# SEGMENTS					0.059 (0.86)	0.021 (1.06)
R&D	0.001 *** (3.80)	0.001 *** (4.70)	0.001 *** (4.03)	0.001 *** (5.08)	0.001 *** (3.28)	0.001 *** (3.82)
INTERCEPT	0.254 *** (5.79)	0.604 *** (35.86)	0.268 *** (5.30)	0.618 *** (31.02)	0.338 *** (2.39)	0.616 *** (11.61)
OBSERVATIONS	1927	1927	1758	1758	1927	1927
CENTERED R-SQUARED		0.01		0.01		0.03
UNCENTERED R-SQUARED		0.59		0.59		0.60
PARTIAL CORRELATION		0.09***		0.10***		0.07***
SEMI PARTIAL CORRELATION		0.09***		0.10***		0.07***

***Significant at the 1% level; **5% level; *10% level

Appendix Table 5

This table presents the results of the hazard models examining the relation between fraud and CEO type (record and frugality).

The variables are defined as follows: FRAUD is a dummy variable that equals 1 in the years a firm committed accounting fraud, and 0 otherwise; RECORD is a dummy variable that equals 1 if a CEO was convicted of any legal infractions prior to the year of fraud initiation, 0 otherwise; FRUGAL is a dummy variable that equals 1 if a CEO does not own a boat, a car worth more than \$75,000, a primary residence worth more than twice the average of median home prices in the zip codes within fifteen miles of his corporate headquarters, or additional homes worth more than twice the average home price in the corresponding metropolitan area prior to the year of fraud initiation, 0 otherwise; TOBIN'S_Q is the market value of assets divided by the book value of assets; ROA is the prior year's operating income before depreciation divided by the firm's average total assets, adjusted for the industry median; %IND_FRAUD is the number of fraud firms in the firm's 2 digit SIC code divided by the total number of firms in that 2 digit SIC code that year; OVERCONFIDENCE is measured following Melmender and Tate (2008) - it is an indicator variable coded as 1 if the CEO is a net acquirer of his firm's stock; NARCISSISM is measured by calculating the area of the CEO's signature divided by the number of letters in his name; RELIGION is measured as the proportion of religious adherents in the county of the firm's headquarters; GROSS MARGIN is calculated as $(\text{Revenue} - \text{COGS})/\text{Revenue}$; RISK is calculated as $(\text{research and development} + \text{capital expenditures} + \text{acquisitions})/\text{total assets}$.

Appendix Table 5
Sensitivity Analysis of Incidence of Fraud

	Hazard Ratio (Z)	Hazard Ratio (Z)	Hazard Ratio (Z)	Hazard Ratio (Z)	Hazard Ratio (Z)
RECORD	2.821 *** (3.67)	1.820 ** (2.26)	2.295 *** (4.61)	2.116 *** (4.23)	2.179 *** (4.30)
FRUGAL	0.470 *** (-2.60)	1.177 (0.36)	0.929 (-0.39)	0.875 (-0.71)	0.848 (-0.84)
TOBINS Q	1.032 (0.93)	1.010 (0.23)	1.039 (1.33)	1.047 * (1.92)	1.046 * (1.82)
ROA	1.000 (-0.03)	1.011 (0.38)	1.010 (1.08)	1.018 * (1.91)	1.012 (1.40)
% IND FRAUD	0.942 (-0.43)	0.958 (-0.25)	1.058 (0.57)	1.075 (0.78)	1.069 (0.72)
OVERCONFIDENCE	2.261 ** (2.19)				
NARCISSISM		0.997 (-0.66)			
RELIGION			1.023 *** (2.62)		
GROSS MARGIN				0.992 ** (-1.89)	
RISK					0.982 (-0.35)
OBSERVATIONS	505	364	1659	1659	
PSEUDO R-SQUARED	0.21	0.37	0.14	0.12	

***Significant at the 1% level; **5% level; *10% level

Appendix Table 6

This table presents the OLS and IV regression results examining the relation between CEO type and earnings management. The instrument for frugality used in the IV model is research and development expense as a proportion of total assets.

The variables are defined as follows: MEET_BEAT is the percentage of the prior 8 quarters when the firm met or beat the most recent consensus analysts' forecast by a small amount; RECORD is a dummy variable that equals 1 if a CEO was convicted of any legal infractions prior to the year of fraud initiation, 0 otherwise; FRUGAL is a dummy variable that equals 1 if a CEO does not own a boat, a car worth more than \$75,000, a primary residence worth more than twice the average of median home prices in the zip codes within fifteen miles of his corporate headquarters, or additional homes worth more than twice the average home price in the corresponding metropolitan area prior to the year of fraud initiation, 0 otherwise; ROA is the prior year's operating income before depreciation divided by the firm's average total assets, adjusted for the industry median; SIZE is the log of market capitalization of the firm; MTB is the market value of equity divided by the book value of equity; CURRENT_ASSET is the current assets as a proportion of total assets; NET_INCOME is the seasonally adjusted income before extraordinary items; LOSS (t-q) is a dummy variable that equals 1 if net income is negative in the previous q quarter; R&D is research and development expense scaled by total assets.

Appendix Table 6
Earnings Management

	OLS	IV	IV 1ST STAGE
RECORD	5.567 ** (1.99)	5.752 *** (6.03)	0.020 (0.94)
FRUGAL	-2.338 (-1.14)	-10.964 * (-1.74)	
ROA	-0.066 (-0.28)	-0.023 (-0.25)	0.003 * (1.77)
SIZE	-1.437 ** (-2.10)	-1.213 *** (-5.11)	0.023 *** (5.99)
MTB	-0.004 *** (-8.56)	-0.005 ** (-2.47)	-0.001 (-1.19)
CURRENT ASSET	18.483 *** (3.96)	20.512 *** (10.58)	0.177 *** (6.03)
NET INCOME	0.001 (1.62)	0.001 (1.15)	0.001 (0.12)
NIT-1	-4.732 *** (-5.06)	-4.409 *** (-5.05)	0.025 (1.30)
NIT-2	-4.459 *** (-7.22)	-4.347 *** (-5.18)	0.004 (0.22)
NIT-3	-4.793 *** (-7.76)	-4.749 *** (-5.67)	-0.006 (-0.29)
NIT-4	-5.275 *** (-6.78)	-5.311 *** (-6.44)	-0.014 (-0.77)
R&D			2.228 *** (7.03)
INTERCEPT	28.738 *** (4.87)	30.59 *** (4.66)	0.251 *** (6.93)
OBSERVATIONS	7462	7462	7462
CENTERED R-SQUARED	0.10	0.06	0.02
UNCENTERED R-SQUARED			0.57
F-STATISTIC		49.35	
PARTIAL CORRELATION			0.09***
SEMIT PARTIAL CORRELATION			0.09***

***Significant at the 1% level; **5% level; *10% level