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How Useful Are CSR-related Expenditures in Predicting Future Earnings?

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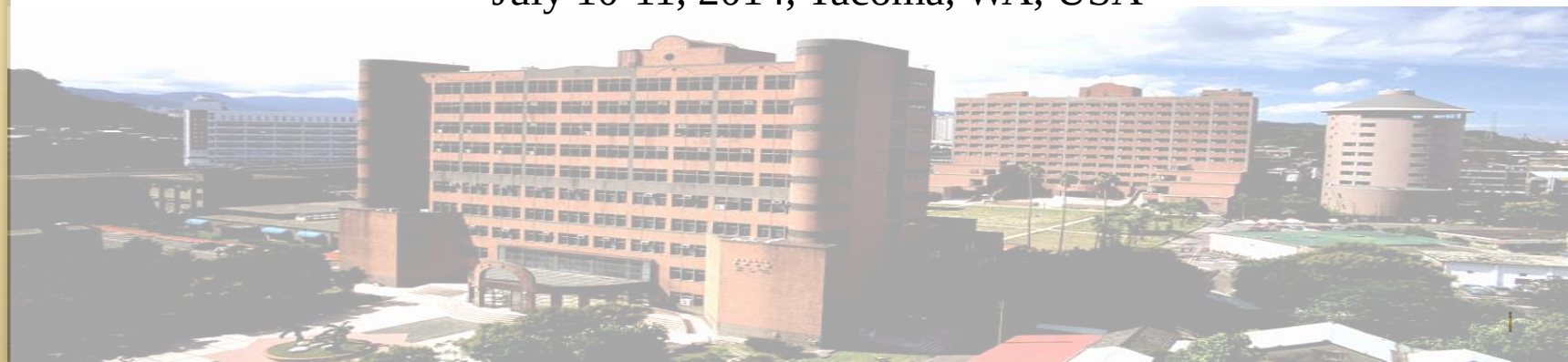

Benefits of CSR activities

- high quality of financial reporting
  - Kim et al. (2012)
- preferences of mutual fund managers
  - Hong and Kostovetsky (2012)
- low costs of capital
  - Dhaliwal et al. (2011) and Dhaliwal et al. (2012).

Potential problem

- no distinctive account to record them
  - socially responsible or irresponsible expenditures
  - selling, general and administrative (SG&A) expenses

Mixed with SG&A

- Difficult to quantify US companies' CSR spending
- Likely to be aggregated with SG&A
  - Barnea and Rubin (2010)
- SG&A contains spending on a number of common activities in CSR
  - Banker et al. (2011)
- Positive and significant association between SG&A and KLD CSR scores
  - Di Giuli and Kostovetsky (2014)

Consequence of mixed expenses

- Reduce investors' ability to forecast future earnings
  - discretionary nature of SG&A
    - Roychowdhury (2006)
  - disaggregation income items to aid prediction
    - Demski (1973), Fairfield et al. (1996), Hodge et al. (2004), Schipper (2007), Libby and Brown (2013)

Hypothesis 1

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- CSR-related expenditures increase with KLD rating between strengths and concerns
  - Barnea and Rubin (2010)
  - Di Giuli and Kostovetsky (2014)

- The definition of KLD user manual
  - negative indicators (concerns) can also increase corporate expenditures
    - environmental contamination, water rights disputes, plant closings, or waste management violations

- H1: CSR expenditures (using SG&A as a proxy) increase with both positive (strengths) and negative (concerns) KLD scores.

Hypothesis 2

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- Not required to be separately accounted
  - An ignorance among accounting standard setters
    - Rapid growth recent years
      - Dhaliwal et al. (2011) / Di Giuli and Kostovetsky (2014)
- Disaggregation of earnings improves prediction of future earnings
  - Fairfield et al. (1996) / Schipper (2007) / Libby and Brown (2013)
- H2: CSR-related expenditures weaken investors' ability to predict future earnings.

Research design

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- **CSR Spending Measurement**
  - SG&A as a proxy for the magnitude of CSR-related expenditures

$$SG\&A_t = b_0 + b_1 \Delta PPENT_t + b_2 \Delta AT_t + b_3 SALE_{t-1} + b_4 KLD_t + industry\ and\ year\ effects + \varepsilon_t$$

  - the number of strengths and weaknesses that appear in the KLD's QIA database

Research design

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- How much information do the current stock prices have about future earnings
- Future earnings response coefficient

$$R_t = b_0 + b_1 X_{t-1} + b_2 X_t + b_3 X_{t+1} + b_4 R_{t+1}$$

  - R_t = the annual stock return for year t
  - X_{t+1}= the reported earnings for year t + 1
- for $b_3 > 0$, current stock prices contain information about future earnings

Hypothesis test

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- H2: CSR-related expenditures weaken investors' ability to predict future earnings.

$$R_t = b_0 + b_1 X_{t-1} + b_2 X_t + b_3 X_{t+1} + b_4 R_{t+1}$$

$$+ b_5 KLD_t + b_6 KLD_t \cdot X_{t-1} + b_7 KLD_t \cdot X_t + b_8 KLD_t \cdot X_{t+1} + b_9 KLD_t \cdot R_{t+1} + \varepsilon_t$$

  - KLD_t = various KLD rating
- for $b_8 < 0$, current stock prices contain less information about future earnings for firms with higher KLD rating

Data and sample descriptions

Sample Selection Criteria	Number of Firms	Number of Firm-Years
Firms with KLD ratings	6,161	38,098
Delete if X_{t-1}, X_t, or X_{t+1} data are missing[a]	(2,406)	(14,537)
Sample with earnings data available	3,755	23,561
Delete if R_t, or R_{t+1} data are missing[b]	(890)	(6,403)
Sample with earnings and return data available	2,865	17,158
Delete if data are in the financial and regulated industries[c]	(398)	(1,972)
Final Sample	2,467	15,186

Descriptive statistics

(N=15,186 Firm-Years during 1994–2012)

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Variable	Mean	Std. Dev.	Median	Minimum	Maximum
R_t	0.175	0.553	0.097	-0.762	2.682
X_{t-1}	0.078	0.096	0.076	-0.309	0.442
X_t	0.085	0.095	0.084	-0.278	0.429
X_{t+1}	0.100	0.113	0.090	-0.216	0.608
R_{t+1}	0.141	0.496	0.083	-0.772	2.254
KLD concerns					
$Cgov\_con_t$	0.474	0.597	0	0	4
Com_con_t	0.063	0.264	0	0	3
Div_con_t	0.517	0.657	0	0	3
Emp_con_t	0.456	0.684	0	0	4
Env_con_t	0.254	0.711	0	0	6
Pro_con_t	0.222	0.571	0	0	4
Hum_con_t	0.067	0.275	0	0	3
$Total\_con_t$	2.053	1.947	2	0	18
KLD strengths					
$Cgov\_str_t$	0.153	0.385	0	0	3
Com_str_t	0.167	0.521	0	0	4
Div_str_t	0.607	1.082	0	0	7
Emp_str_t	0.335	0.692	0	0	6
Env_str_t	0.257	0.692	0	0	5
Pro_str_t	0.092	0.306	0	0	3
Hum_str_t	0.011	0.102	0	0	1
$Total\_str_t$	1.622	2.529	1	0	22

Pairwise correlations

Pearson above (Spearman below)

(N=15,186)

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Variable	R_t	X_{t-1}	X_t	X_{t+1}	R_{t+1}	Total_con	Total_str
R_t		0.074	0.214	0.482	-0.099	-0.043	-0.038
X_{t-1}	0.100		0.663	0.501	0.067	0.093	0.040
X_t	0.264	0.728		0.703	0.001#	0.089	0.029
X_{t+1}	0.466	0.572	0.761		0.154	0.069	0.000#
R_{t+1}	-0.068	0.100	0.058	0.205		0.001#	-0.007
Total_con	-0.058	0.082	0.084	0.063	0.002#		0.346
Total_str	-0.037	0.032	0.001#	-0.013	0.007#	0.137	

# Indicates statistically insignificant. The unmarked correlations are statistically significant at 10 percent or lower in a two-tailed test.

Association between KLD Rating and SG&A expenses

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Regression Model:

$$SG\&A_t = b_0 + b_1 \Delta PPENT_t + b_2 \Delta AT_t + b_3 SALE_{t-1} + b_4 KLD_t + industry\ and\ year\ effects + \varepsilon_t$$

	b_0 Coef.	(t-stat.)	b_1 Coef.	(t-stat.)	b_2 Coef.	(t-stat.)	b_3 Coef.	(t-stat.)	**b_4 Coef.**	**(t-stat.)**	Adj. R2 %
KLD_t=	232.9	(15.12)	-0.540	(-27.1)	0.200	(28.82)	0.140	(153.51)			63.64
KLD strengths											
(1) Cgov_str	177.5	(10.96)	-0.540	(-26.74)	0.190	(28.53)	0.140	(150.41)	**413.7**	**(10.69)**	63.91
(2) Com_str	115.9	(7.66)	-0.490	(-25.35)	0.180	(27.15)	0.130	(138.49)	**1,047.6**	**(36.07)**	66.51
(3) Div_str	-54.7	(-3.41)	-0.440	(-23.03)	0.170	(25.61)	0.130	(134.27)	**599.2**	**(42.78)**	67.55
(4) Emp_str	139.9	(8.50)	-0.530	(-26.32)	0.190	(27.84)	0.140	(145.65)	**335.4**	**(15.25)**	64.19
(5) Env_str	156.3	(9.85)	-0.520	(-26.10)	0.190	(27.45)	0.140	(145.03)	**387.7**	**(17.62)**	64.37
(6) Pro_str	164.0	(10.46)	-0.520	(-26.24)	0.190	(28.12)	0.140	(150.26)	**899.7**	**(18.64)**	64.45
(7) Hum_str	223.8	(14.53)	-0.540	(-26.93)	0.200	(28.67)	0.140	(152.05)	**1,287.0**	**(8.88)**	63.83
(8) Total_str	-96.54	(-5.81)	-0.440	(-23.12)	0.160	(24.93)	0.130	(129.20)	**256.56**	**(41.58)**	63.65
KLD concerns											
(1) Cgov_con	150.7	(7.99)	-0.540	(-26.9)	0.190	(28.59)	0.140	(147.11)	**192.7**	**(7.54)**	63.77
(2) Com_con	251.7	(16.24)	-0.540	(-26.8)	0.200	(28.96)	0.150	(147.98)	**-551.3**	**(-9.17)**	63.84
(3) Div_con	285.3	(14.71)	-0.540	(-26.99)	0.200	(28.66)	0.140	(153.37)	**-99.9**	**(-4.45)**	63.68
(4) Emp_con	199.0	(11.16)	-0.540	(-27.00)	0.200	(28.74)	0.140	(147.84)	**84.1**	**(3.77)**	63.67
(5) Env_con	316.2	(20.19)	-0.530	(-26.65)	0.200	(29.66)	0.150	(154.10)	**-476.3**	**(-21.56)**	64.72
(6) Pro_con	97.4	(6.29)	-0.480	(-24.74)	0.170	(26.31)	0.130	(135.69)	**875.4**	**(32.31)**	65.98
(7) Hum_con	235.7	(15.14)	-0.540	(-27.05)	0.200	(28.84)	0.140	(146.78)	**-70.5#**	**(-1.24)**	63.64
(8) Total_con	197.6	(9.06)	-0.540	(-27.06)	0.200	(28.67)	0.140	(134.07)	**20.1**	**(2.29)**	63.65

Association between net KLD Rating and SG&A Expenses

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	KLD Qualitative Issue Areas							
	Cgov	Com	Div	Emp	Env	Pro	Hum	Total
KLD_t =	str – con	str – con	str – con	str – con	str – con	str – con	str – con	str – con
Intercept	230 ***	157 ***	249 ***	250 ***	220 ***	196 ***	241 ***	322 ***
	(13.95)	(10.53)	(16.77)	(16.12)	(14.78)	(12.77)	(15.57)	(21.37)
$\Delta PPENT_t$	-0.54 ***	-0.48 ***	-0.47 ***	-0.54 ***	-0.49 ***	-0.52 ***	-0.54 ***	-0.48 ***
	(-27.10)	(-24.91)	(-24.27)	(-26.95)	(-25.15)	(-26.3)	(-26.91)	(-24.56)
ΔAT_t	0.20 ***	0.18 ***	0.17 ***	0.19 ***	0.19 ***	0.19 ***	0.20 ***	0.18 ***
	(28.82)	(27.54)	(26.35)	(28.55)	(27.95)	(27.85)	(28.88)	(27.14)
$SALE_{t-1}$	0.14 ***	0.14 ***	0.13 ***	0.14 ***	0.15 ***	0.14 ***	0.14 ***	0.14 ***
	(152.38)	(152.41)	(141.06)	(153.79)	(160.23)	(144.85)	(149.53)	(157.03)
KLD_t	**-8.16**	**983** ***	**362** ***	**135** ***	**548** ***	**-472** ***	**262** ***	**188** ***
	(-0.40)	**(37.28)**	**(33.75)**	**(8.34)**	**(31.81)**	**(-18.88)**	**(4.65)**	**(34.22)**
Adjusted R^2	63.6	66.7	66.2	63.8	65.9	64.5	63.7	66.2

Effect of KLD **strengths** on FERC

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	Benchmark	KLD Qualitative Issue Areas							
	CKSS model	Model (1)	Model (2)	Model (3)	Model (4)	Model (5)	Model (6)	Model (7)	Model (8)
KLD_t =		Cgov_str$_t$	Com_str$_t$	Div_str$_t$	Emp_str$_t$	Env_str$_t$	Pro_str$_t$	Hum_str$_t$	Total_str$_t$
Intercept	-0.03 (-0.57)	-0.05 (-0.81)	-0.03 (-0.51)	-0.05 (-0.93)	-0.07 (-1.11)	-0.08 (-1.41)	-0.03 (-0.45)	-0.03 (-0.54)	-0.13 (-2.16)***
X_{t-1}	-7.57 (-48.55)***	-8.21 (-50.34)***	-7.63 (-48.70)***	-4.14 (-22.78)***	-9.68 (-50.09)***	-7.21 (-43.76)***	-7.76 (-48.57)***	-7.6 (-48.61)***	-6.01 (-28.94)***
X_t	5.26 (12.29)***	5.52 (12.11)***	5.31 (12.06)***	-9.1 (-18.96)***	5.53 (12.00)***	5.89 (13.17)***	5.23 (11.95)***	5.26 (12.25)***	-5.19 (-10.19)***
X_{t+1}	4.21 (34.20)***	4.71 (36.60)***	4.25 (34.41)***	14.2 (75.91)***	5.86 (38.49)***	3.92 (30.18)***	4.35 (34.55)***	4.22 (34.28)***	13.43 (65.96)***
R_{t+1}	-0.15 (-2.49)***	-0.15 (-2.39)***	-0.15 (-2.46)***	-0.47 (-7.77)***	-0.16 (-2.36)***	-0.14 (-2.29)***	-0.17 (-2.65)***	-0.15 (-2.49)***	-0.47 (-6.80)***
KLD_t		0.07 (0.45)	-0.09 (-0.63)	-0.04 (-0.69)	0.00 (-0.04)	0.08 (0.77)	0.01 (0.04)	-0.23 (-0.29)	0.13 (5.05)***
$KLD_t \cdot X_{t-1}$		6.87 (13.18)***	4.34 (4.46)***	2.37 (14.34)***	6.17 (21.32)***	-1.09 (-2.43)***	5.49 (6.99)***	7.79 (2.29)***	1.1 (10.73)***
$KLD_t \cdot X_t$		-5.09 (-3.62)***	-2.56 (-1.94)***	7.28 (15.88)***	-5.79 (-7.63)***	-12.0 (-11.06)***	-5.56 (-2.64)***	-5.7 (-0.7)	4.03 (17.42)***
$KLD_t \cdot X_{t+1}$		**-1.81 (-1.96)*** **	**-0.82 (-0.80)**	**-8.21 (-55.06)*** **	**0.17 (0.46)**	**11.0 (14.29)*** **	**-0.25 (-0.34)**	**-0.45 (-0.07)**	**-6.10 (-52.99)*** **
$KLD_t \cdot R_{t+1}$		-0.08 (-0.41)	-0.03 (-0.18)	0.12 (2.04)***	-0.08 (-0.82)	-0.21 (-1.51)	0.1 (0.60)	-0.01 (-0.01)	0.14 (4.26)***
Adjusted R^2	69.9	70.3	70.0	76.6	70.9	70.4	70.1	69.9	74.86

Effect of KLD **concerns** on FERC

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	Benchmark	KLD Qualitative Issue Areas							
	CKSS model	Model (1)	Model (2)	Model (3)	Model (4)	Model (5)	Model (6)	Model (7)	Model (8)
KLD_t =		Cgov_con$_t$	Com_con$_t$	Div_con$_t$	Emp_con$_t$	Env_con$_t$	Pro_con$_t$	Hum_con$_t$	Total_con$_t$
Intercept	-0.03 (-0.57)	0.01 (0.17)	-0.04 (-0.71)	-0.02 (-0.40)	-0.04 (-0.64)	-0.04 (-0.77)	-0.02 (-0.37)	-0.03 (-0.59)	0.20 (2.54) ***
X_{t-1}	-7.57 (-48.55) ***	-11.8 (-60.99) ***	-7.66 (-48.77) ***	-3.75 (-28.38) ***	-1.64 (-7.51) ***	-8.52 (-50.61) ***	-8.34 (-50.22) ***	-7.6 (-48.58) ***	-12.8 (-50.30) ***
X_t	5.26 (12.29) ***	5.16 (10.26) ***	5.43 (12.29) ***	4.75 (12.39) ***	-9.24 (-17.07) ***	5.61 (12.28) ***	5.35 (11.79) ***	5.34 (12.26) ***	8.31 (13.40) ***
X_{t+1}	4.21 (34.20) ***	7.53 (49.39) ***	4.27 (34.5) ***	1.17 (11.21) ***	12.4 (60.58) ***	4.95 (37.30) ***	4.81 (36.72) ***	4.23 (34.26) ***	4.03 (21.05) ***
R_{t+1}	-0.15 (-2.49) ***	-0.26 (-3.32) ***	-0.15 (-2.38) ***	-0.05 (-0.97)	-0.52 (-7.29) ***	-0.18 (-2.72) ***	-0.18 (-2.64) ***	-0.15 (-2.42) ***	-0.21 (-2.62) ***
KLD_t		0.00 (0.04)	-0.12 (-0.44)	-0.05 (-0.92)	0.08 (1.06)	-0.12 (-1.28)	0.01 (0.10)	-0.03 (-0.11)	-0.15 (-4.63) ***
$KLD_t \cdot X_{t-1}$		9.01 (36.18) ***	7.34 (4.98) ***	0.68 (4.31) ***	-4.29 (-24.44) ***	4.73 (14.94) ***	4.29 (14.20) ***	3.48 (2.11) ***	2.84 (30.12) ***
$KLD_t \cdot X_t$		-5.60 (-7.37) ***	-5.77 (-2.54) ***	-18.1 (-39.59) ***	14.1 (23.61) ***	-3.79 (-5.68) ***	-3.68 (-3.34) ***	-2.75 (-1.08)	-3.82 (-15.79) ***
$KLD_t \cdot X_{t+1}$		**-3.29 (-12.83) ***	**-1.10 (-0.81)**	**16.3 (113.24) ***	**-9.50 (-47.00) ***	**-0.13 (-0.46)**	**-1.07 (-1.78) ***	**-0.76 (-0.39)**	**2.08 (23.32) ***
$KLD_t \cdot R_{t+1}$		0.07 (0.89)	-0.08 (-0.23)	-0.60 (-8.5) ***	0.36 (5.22) ***	0.01 (0.17)	0.04 (0.35)	-0.11 (-0.30)	-0.02 (-1.03)
Adjusted R^2	69.9	72.4	70.0	86.3	75.4	70.4	70.3	69.9	72.91

Effect of **net** CSR score on FERC

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			KLD Qualitative Issue Areas															
KLD_t =	Benchmark CKSS model		Model (1) Cgov_str –Cgov_con		Model (2) Com_str –Com_con		Model (3) Div_str –Div_con		Model (4) Emp_str –Emp_con		Model (5) Env_str –Env_con		Model (6) Pro_str –Pro_con		Model (7) Hum_str –Hum_con		Model (8) Total_str –Total_con	
Intercept	-0.03	(-0.57)	0.01	(0.25)	-0.03	(-0.49)	-0.06	(-1.44)	-0.06	(-1.20)	-0.04	(-0.69)	-0.03	(-0.48)	-0.04	(-0.67)	0.01	(0.29)
X_{t-1}	-7.57	(-48.55) ***	-9.47	(-54.09) ***	-7.58	(-48.58) ***	-1.93	(-14.34) ***	-3.02	(-17.73) ***	-8.02	(-50.37) ***	-8.14	(-50.24) ***	-7.59	(-48.56) ***	-5.65	(-34.42) ***
X_t	5.26	(12.29) ***	4.83	(10.71) ***	5.27	(12.29) ***	-7.74	(-21.36) ***	-4.78	(-10.63) ***	5.27	(12.23) ***	5.33	(12.11) ***	5.37	(12.38) ***	-0.74	(-1.71) ***
X_{t+1}	4.21	(34.2) ***	5.70	(41.28) ***	4.21	(34.22) ***	11.1	(87.99) ***	9.81	(59.9) ***	4.56	(36.30) ***	4.66	(36.42) ***	4.22	(34.22) ***	7.27	(50.93) ***
R_{t+1}	-0.15	(-2.49) ***	-0.22	(-3.08) ***	-0.15	(-2.52) ***	-0.44	(-9.40) ***	-0.35	(-6.05) ***	-0.16	(-2.51) ***	-0.15	(-2.50) ***	-0.15	(-2.44) ***	-0.33	(-5.57) ***
KLD_t			0.05	(0.72)	-0.10	(-0.77)	0.03	(0.99)	0.04	(0.65)	0.06	(0.73)	-0.04	(-0.40)	-0.14	(-0.54)	0.10	(4.57) ***
$KLD_t \cdot X_{t-1}$			-5.18	(-24.25) ***	0.97	(1.15)	2.00	(18.19) ***	4.65	(31.71) ***	-3.14	(-11.65) ***	-3.57	(-11.88) ***	-2.03	(-1.18)	-1.89	(-23.44) ***
$KLD_t \cdot X_t$			3.18	(4.79) ***	-1.23	(-1.02)	5.75	(20.23) ***	-10.9	(-21.95) ***	0.61	(0.96)	0.03	(0.03)	3.43	(1.21)	4.27	(21.8) ***
$KLD_t \cdot X_{t+1}$			**1.35**	**(5.48)** ***	**1.00**	**(1.18)**	**-7.26**	**(-81.1)** ***	**5.53**	**(34.96)** ***	**1.56**	**(5.41)** ***	**4.00**	**(6.89)** ***	**0.25**	**(0.12)**	**-3.10**	**(-45.34)** ***
$KLD_t \cdot R_{t+1}$			-0.07	(-0.93)	0.03	(0.16)	0.15	(3.89) ***	-0.19	(-3.56) ***	-0.04	(-0.62)	-0.05	(-0.39)	0.08	(0.23)	0.03	(1.40)
Adj. R2 (%)	69.9		71.1		69.9		82.0		74.8		70.4		70.2		69.9		75.95	

Differences in FERC coefficients due to KLD strengths and concerns

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KLD Qualitative Issue Areas

	Model (1)		Model (2)		Model (3)		Model (4)		Model (5)		Model (6)		Model (7)		Model (8)	
$KLD_{1,t}$ =	Cgov_str		Com_str		Div_str		Emp_str		Env_str		Pro_str		Hum_str		Total_str	
$KLD_{2,t}$ =	Cgov_con		Com_con		Div_con		Emp_con		Env_con		Pro_con		Hum_con		Total_con	
Intercept	0.02	(0.32)	-0.04	(-0.62)	0.01	(0.06)	-0.06	(-0.98)	-0.08	(-1.4)	-0.02	(-0.33)	-0.03	(-0.54)	0.07	(0.89)
X_{t-1}	-13.29	(-65.08)***	-7.7	(-48.88)***	-4.91	(-30.34)***	-3.94	(-16.07)***	-8.13	(-45.96)***	-8.42	(-50.54)***	-7.61	(-48.6)***	-8.56	(-33.31)***
X_t	5.09	(9.69)***	5.46	(12.09)***	6.04	(12.17)***	-8.88	(-16.24)***	6.03	(12.97)***	5.31	(11.55)***	5.31	(12.17)***	-2.52	(-4.1)***
X_{t+1}	8.71	(54.09)***	4.31	(34.66)***	0.92	(4.74)***	14.11	(62.31)***	4.65	(33.3)***	4.88	(37.1)***	4.23	(34.3)***	11.52	(49.99)***
R_{t+1}	-0.24	(-2.95)***	-0.15	(-2.38)**	-0.05	(-0.73)	-0.59	(-7.58)***	-0.17	(-2.49)**	-0.19	(-2.71)***	-0.15	(-2.42)**	-0.52	(-6.42)***
$KLD_{1,t}$	-0.03	(-0.23)	-0.1	(-0.66)	-0.01	(-0.14)	0.19	(2.35)**	0.04	(0.4)	0.01	(0.02)	-0.56	(-0.7)	0.10	(3.90)***
$KLD_{1,t} \cdot X_{t-1}$	10.46	(20.69)***	3.78	(3.85)***	1.62	(12.83)***	5.4	(20.54)***	-1.15	(-2.55)**	4.21	(4.89)***	4.75	(1.21)	-0.12	(-1.15)
$KLD_{1,t} \cdot X_t$	-2.50	(-1.86)*	-2.26	(-1.69)*	-0.84	(-2.29)**	-4.17	(-5.93)***	-10.65	(-9.48)***	-5.67	(-2.68)***	0.27	(0.03)	4.60	(19.61)***
$KLD_{1,t} \cdot X_{t+1}$	**-5.82**	**(-6.57)*****	**-0.52**	**(-0.5)**	**-0.70**	**(-5.17)*****	**-2.91**	**(-8.64)*****	**10.23**	**(13.05)*****	**1.20**	**(1.42)**	**-0.35**	**(-0.05)**	**-5.14**	**(-44.29)*****
$KLD_{1,t} \cdot R_{t+1}$	-0.10	(-0.53)	-0.02	(-0.11)	0.01	(0.20)	0.15	(1.61)	-0.23	(-1.67)*	0.09	(0.49)	0.03	(0.03)	0.10	(3.25)***
$KLD_{2,t}$	-0.02	(-0.17)	-0.1	(-0.37)	-0.05	(-0.9)	-0.01	(-0.05)	-0.09	(-0.94)	0.01	(0.1)	-0.01	(-0.03)	-0.11	(-3.72)***
$KLD_{2,t} \cdot X_{t-1}$	9.97	(39.82)***	6.59	(4.43)***	0.82	(5.13)***	-4.17	(-23.94)***	4.07	(12.74)***	4.23	(13.78)***	2.83	(1.5)	2.26	(23.52)***
$KLD_{2,t} \cdot X_t$	-5.42	(-7.19)***	-5.17	(-2.26)**	-18.59	(-38.18)***	14.92	(24.92)***	-2.53	(-3.67)***	-3.89	(-3.38)***	-2.46	(-0.84)	-3.65	(-15.25)***
$KLD_{2,t} \cdot X_{t+1}$	**-4.02**	**(-15.75)*****	**-1.09**	**(-0.80)**	**16.55**	**(96.53)*****	**-9.50**	**(-46.06)*****	**-0.80**	**(-2.72)*****	**-0.73**	**(-1.03)**	**-0.58**	**(-0.29)**	**2.13**	**(25.93)*****
$KLD_{2,t} \cdot R_{t+1}$	0.05	(0.61)	-0.06	(-0.18)	-0.60	(-8.28)***	0.38	(5.60)***	0.03	(0.44)	-0.01	(-0.06)	-0.11	(-0.29)	0.01	(0.07)
F-stat. for H_0: $b_8 = b_{14}$	**3.82***		**0.10**		**11,347*****		**353.92*****		**154.19*****		**2.06**		**0.00**		**2,614.2*****	
Adj. R2 (%)	0.73		0.70		0.86		0.76		0.71		0.7		0.7		0.77	

Negative association

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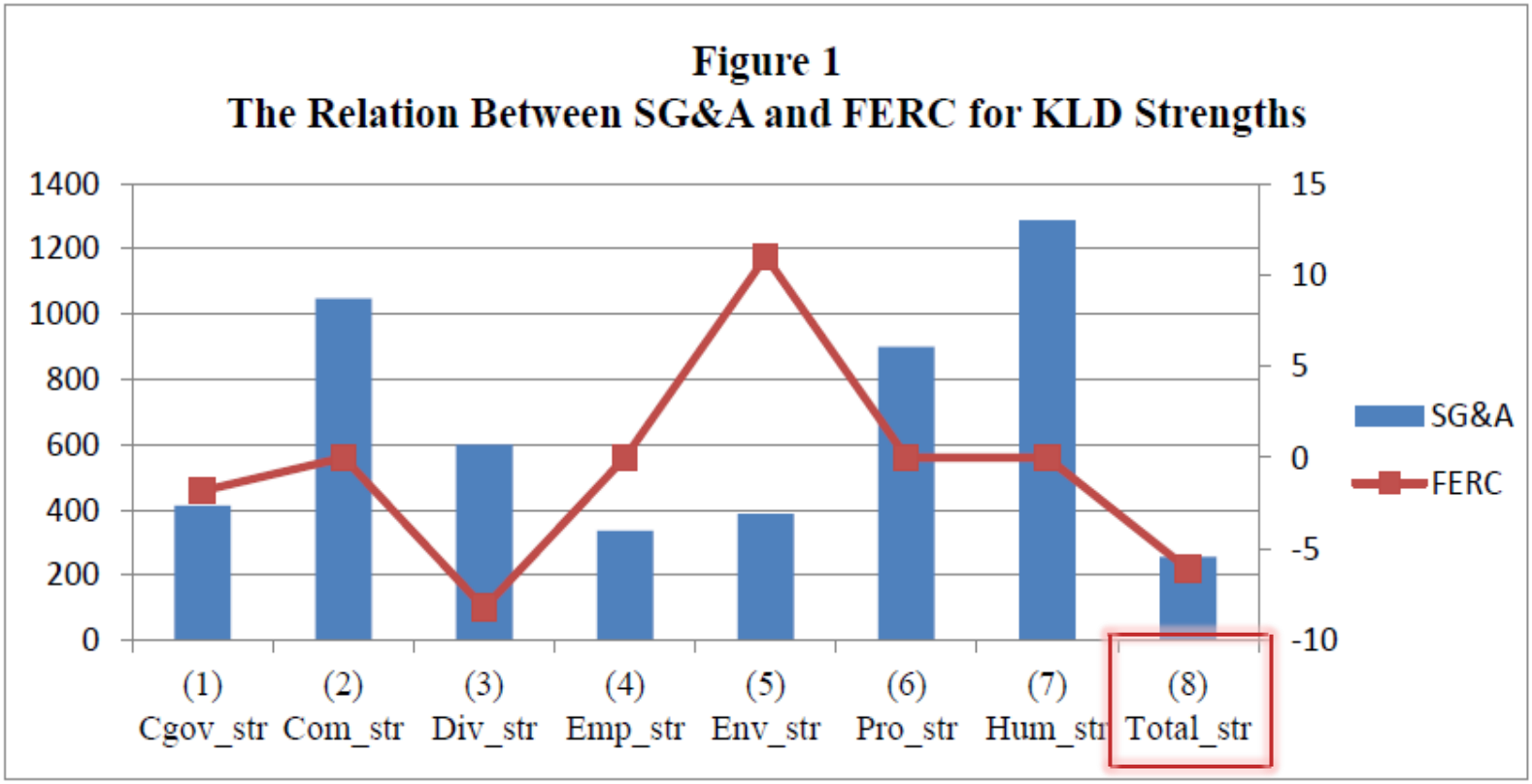
Figure 1
The Relation Between SG&A and FERC for KLD Strengths



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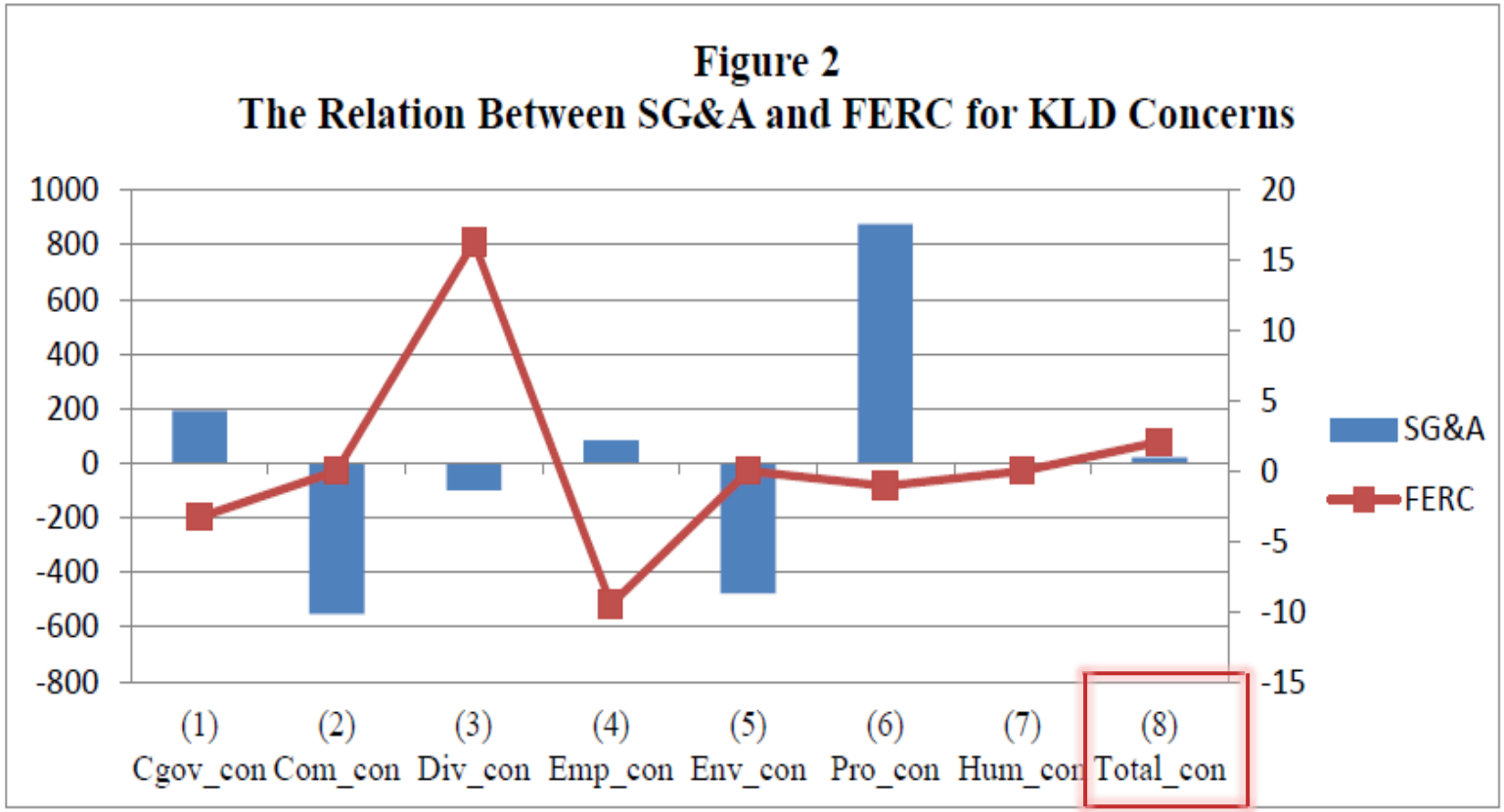

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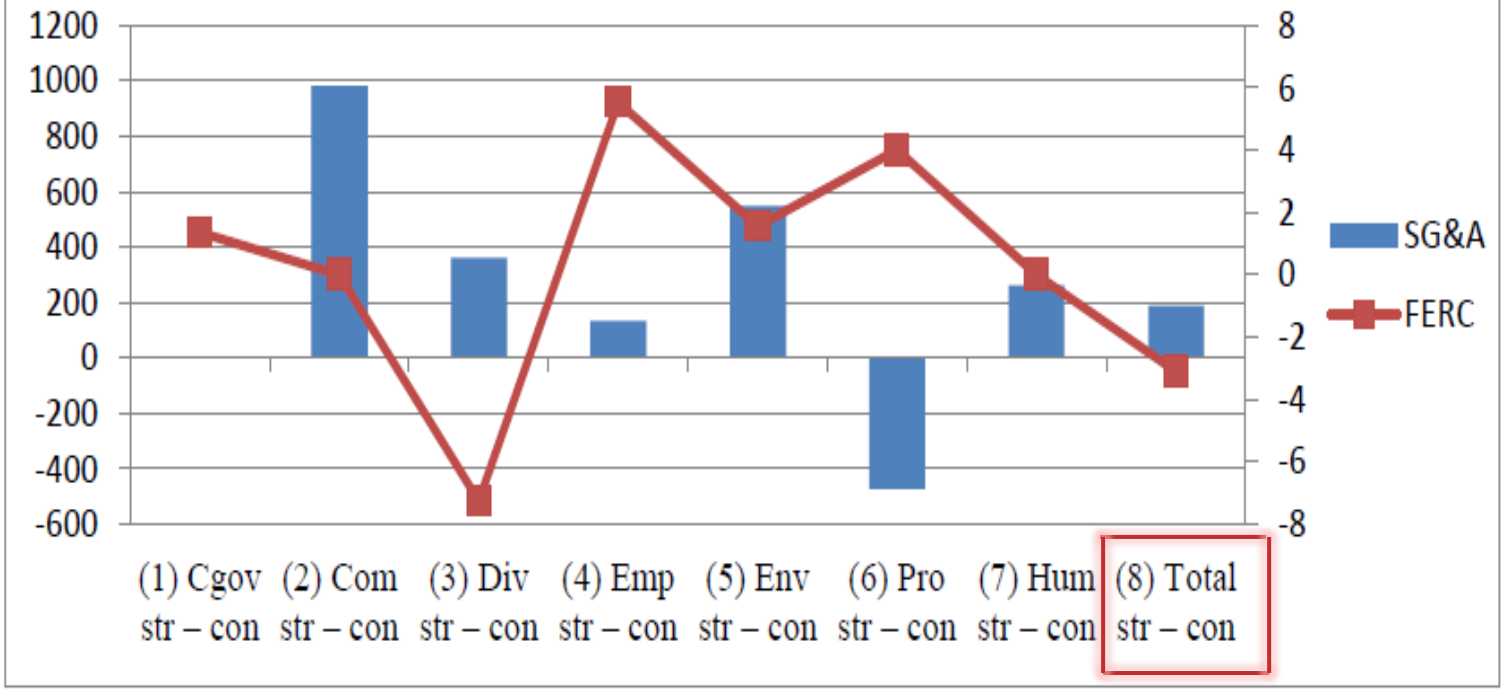
Figure 3
The Relation Between SG&A and FERC for Net CSR Score



Robustness tests

- Potentially omitted correlated variables
  - Firm size, market-to-book ratio, standard deviation of return on assets, free cash flow, loss dummy variable
- Fama-MacBeth Regressions

Conclusions and contributions

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- CSR-related expenditures
  - aggregated with SG&A
  - reduce investors' ability to predict future earnings
- Highlight deficiency in current CSR disclosure regulation

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Thank you very much

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