Illuminating the Corporate Governance Black Hole: Contextualizing the Link to Performance

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Background

- General belief: Capacity of a firm to create value for shareholders is affected by the nature of its corporate governance structure
- Empirical efforts to confirm this general belief: Create an index of governance provisions believed by authors to reflect the quality of governance
  - Then test whether there is a relationship between the quality of a firm's governance as rated by the index and a proxy for firm value creation such as Tobin's Q
    - 24 provisions Gompers, Ishii & Metrick (QJE 2003): G Index
    - Bebchuk, Cohen and Ferrell (RFS 2008) (entrenchment provisions subset of G index): E Index
- GIM and BCF: each find a relationship between firms with structures getting a favorable rating and Tobin's Q

Objectives

- Help answer why do we see this relationship
  - Critics (e.g. Klausner 2013 and Catan & Kahan 2016) claim no good theoretical reason why the indices' rated provisions would affect firm value creation
- Suggest, and empirically confirm, that signaling plays a role
  - High quality – i.e. greater value creating – managers signal their type by choosing better rated governance provisions
- Make larger point that relationship between governance and performance is contextual
  - Linkages are more complicated and more contingent than the theories implicit in construction of the indices

Explanations for the Observed Relationship

- Better rated governance structure → Higher quality managers → Higher Q
  - Better structure over time more effectively filters out bad managers

- Better rated governance structure → Better motivated and informed managers → Higher Q
  - Better structure incentivizes managers more, eg perhaps because it increases the likelihood of job loss for poor performance
  - Better structure leads to better monitoring by, and gives more voice to, independent directors and activist shareholders

- Better managers → Better rated governance structure. Mkt. see better structure and infers managers are better → Higher Q
  - A change in structure is a signal of management quality

Third Explanation – Signaling – Gives Rise to the Tested Hypothesis

- Information asymmetry: Managers know more about their own quality than do the external capital markets
- Change in governance structure quality – e.g., a change in management's exposure to capital market discipline – is a signal to the market of management quality
  - higher quality structure would be more costly to bad managers than to good ones
- Signal is relatively stronger when asymmetric information about management quality is greater
  - During the 2000-2002 accounting scandals (Enron, WorldCom, HealthSouth, Adelphia, etc.)
  - Especially for firms with a lot of intangible assets (R&D)

Empirical Strategy

- Examine period when asymmetric information problems are especially high (the governance “Scandal” period of 2000-2002) versus “Normal” periods (1992-1999 & 2003-’06)
- Examine the difference between the two sample periods – Scandal vs Normal - in the OLS regression coefficient on the governance variable
- Examine the difference between the two sample periods in the fixed-effects regression coefficient on the governance variable
- Compare these differences: take advantage of fact that FE methodology only looks at firms that change.

Empirical Strategy (continued)

- **Set firm governance rating as the independent variable and its Tobin's Q as the dependent variable**
- **OLS: Cross sectional, with 10 Fama-French industry controls averaging each variable by firm across the years**
- **Fixed Effects: Regression specification:**

$$\Delta\, \boldsymbol{Q_{it}} = \Delta\, \boldsymbol{Gov_{it}} + \Delta\, \boldsymbol{X_{it}} + \in_{\boldsymbol{it}}$$

where X_{it} :

Size= ln(sales)

$Size^2 = (\ln(sales))^2$

Debt= book value of debt/assets

R&D= R&D expenses/assets

Dummy variable for when R&D is missing

Table I: Summary Statistics

Variable	Mean	Median	Standard deviation
Tobin's Q	1.004	0.675	1.063
Gindex	9.064	9	2.752
Eindex	2.297	2	1.358
Debt	0.255	0.235	0.265
R&D	0.026	0	0.079
RDdum	0.509	1	0.500
Lsales	7.143	7.048	1.526
Lsales2	53.35	49.67	22.09

Table II - FE Regressions for Whole Period

Variable	G index	E index
Governance indices	-0.0259*** (-3.05)	-0.0384*** (-2.65)
Debt	0.322*** (4.92)	0.318*** (4.93)
R&D	0.596** (2.15)	0.597** (2.15)
RDdum	0.051 (0.99)	0.050 (0.98)
Lsales	0.108* (1.87)	0.103* (1.80)
Lsales2	-0.010** (-2.23)	-0.009** (-2.19)
Constant	0.821*** (3.40)	0.691*** (2.97)
R^2	0.024	0.026

Table III – OLS Regressions for the Whole Period

Variable	G index	E index
Governance indices	-0.028*** (-5.13)	-0.079*** (-6.72)
Debt	0.202*** (2.65)	0.212*** (2.83)
R&D	2.485** (2.20)	2.452** (2.18)
RDdum	-0.340*** (-5.70)	-0.341*** (-5.74)
Lsales	0.038 (0.52)	0.051 (0.69)
Lsales2	-0.002 (-0.49)	-0.004 (-0.80)
Constant	1.274*** (3.76)	1.197*** (3.58)
R^2	0.109	0.113

Table IV – Fixed Effects – Comparing Scandal vs Normal Periods

Back

Variable	*Gindex*			*Eindex*		
	2000-2002 Accounting scandal	Normal times	Accounting scandal - normal times	2000-2002 Accounting scandal	Normal times	Accounting scandal – normal times
Gindex/ Eindex	-0.1061** (-4.92)	-0.0249*** (-2.64)	-0.081*** (-3.45)	-0.1645 (-4.95)	-0.0559*** (-3.33)	-0.1085*** (-2.91)
Debt	0.573* (1.86)	0.293*** (5.55)		0.583* (1.88)	0.291*** (5.58)	
R&D	1.013 (0.56)	0.849*** (2.77)		1.065 (0.59)	0.849** (2.78)	
RDdum	-0.115 (-0.53)	0.079 (1.37)		0.134 (1.16)	0.079 (1.35)	
Lsales	0.223** (2.04)	0.131 (1.56)		0.225** (2,05)	0.129 (1.55)	
Lsales2	-0.026** (-2.47)	-0.009 (-1.59)		-0.026** (-2.52)	-0.009 (-1.59)	

Table V – OLS – Comparing Scandal vs Normal Periods

Back

Variable	*Gindex*			*Eindex*		
	Scandal	Normal	Scandal - Normal	Scandal	Normal	Scandal- Normal
Gindex or *Eindex*	-0.0309*** (-3.64)	-0.0302*** (-5.53)	-0.001 (0.72)	-0.0862*** (-5.15)	-0.0730*** (-6.28)	-0.013 (0.65)
Debt	0.367** (2.55)	0.180** (2,51)		0.383*** (2.68)	0.186*** (2.63)	
R&D	4.188*** (6.64)	2.338** (1.98)		4.121*** (6.53)	2.316** (1.97)	
RDdum	-0.312*** (-3.65)	-0.359*** (-5.80)		-0.313*** (-6.28)	-0.360*** (-5.84)	
Lsales	-0.220** (-2.40)	0.019 (0.26)		-0.231** (-2.55)	0.026 (0.36)	
Lsales2	-0.010 (-1.63)	-0.001 (-0.24)		-0.011* (-1.89)	-0.002 (-0.47)	

Result 1. Statistical Significance: Fixed effects vs OLS

Fixed Effects and OLS each show highly statistically significant relationship between governance score and Q for the whole sample period (1992-2006)

Same for each the sub-periods; Scandal (2000-2002) and Normal (1992-1999 & 2003-2006)

Difference in the Fixed Effects results between Scandal period and the Normal is highly statistically significant : {Table IV}

Difference in the OLS results between Scandal period and the Normal is not close to being statistically significant {Table V}

Result 1. Economic Significance: Comparing Scandal vs Normal Periods

- Going from 14 (Gompers et. al “dictatorship portfolio”) to 9 (Gompers et. al “democracy portfolio”)
  - Scandal: 132.67% increase in Q
  - Normal: 38.8% increase in Q

- Going from E-Index third quartile to E-Index first quartile
  - Scandal: 31.1% increase in Q
  - Normal: 13.7% increase in Q

Interpretation

- FE results relate just to firms that change governance structure in a given year.

- For firms that change, we see a big difference in the change's impact on Q in the Scandal Period vs the Normal Period.
- Reason could be:
  - (1) mkt thinks during Scandal Period that good management is more important or that there is an increase in the effectiveness of the filtering or incentives/information benefits of a good governance structure, AND/OR
  - (2) a change in structure sends a stronger signal concerning management quality during Scandal Period

Interpretation (cont’d)

- OLS results relate to all firms in the sample, the substantial majority that do not change in a given year and the small minority that do

- Lack of difference between the Scandal Period and the Normal Period in the OLS results suggests:
  - no difference during scandal period in the market’s perception of the capacity of a highly- rated governance structure to create value by filtering out bad managers or incentivizing and informing managers
  - i.e., rules out explanation (1)

Interpretation (cont'd)

- Answer is that the fact of the change in governance structure itself conveys information to the market
- When the information is more valuable – i.e., when it is harder to determine which firms have good vs. bad managers - market impact of this information is bigger
- Change is a signal because a better rated corporate governance structure is more costly to bad managers

Result I – Robustness test using alternative defn's of normal times

- Redefine "normal" period to be three years prior to and after the scandal years: 1997 to 1999 and 2003 to 2005
- Results similar to when "normal" was all the other years of the full sample

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Result I – Robustness Test Using Just Change in Staggered Board or Poison Pill

- Difference between Scandal period and the Normal is highly statistically significant with regard to the impact on Q of a change in staggered board status
- Same with regard to the impact on Q of a change in poison pill status
- Consistent with our interpretation of the results with the full index scores

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Result II: Firms with and without R&D

- Firms with R&D are more opaque than firms without R&D (Aboody and Lev) (JF 2000)

- When firms change governance structures, firms with R&D have a greater change in Tobin’s Q during the “Scandal” versus “Normal” periods than firms that have no R&D spending

- Further support for our signaling hypothesis because we see again that the less informed the market, this time across firms, the bigger the effect of a governance change on Tobin’s Q

Summary of results

- Find evidence in support of the managerial signaling hypothesis wherein impact on Tobin's Q is higher when asymmetric information problems with respect to managerial quality is higher

- Asymmetric information about management quality would have been unusually high when
  - During the 2000-2002 accounting scandals period
  - Especially for firms with a lot of intangible assets (R&D)

Conclusions

- Signaling theory and our supporting empirical evidence help to explain the heretofore undertheorized relationship between governance scores and Tobin's Q
- Idea that governance structure can serve a signaling function is an important result in an of itself:
  - market information asymmetries are a negative thing addressed in part by regulation and it is important to know role of private actors in diminishing them
  - study also suggests sharp asymmetry increase when gatekeepers fail
- Shows corporate governance is more contextual
  - Linkages with performance more complicated and more contingent than often thought