

Status and Bribery:

Evidence from the Revealed Accounting Records of
Two South Korean Presidents

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Bribery in the World

- Estimated total cost of corruption around \$1 trillion annually (World Bank) or more than 5% of global GDP each year which is equivalent to \$2.6 trillion (19 times larger than the \$134.8 billion spent globally on Official Development Assistance in 2013).
- In developing countries alone, corrupt officials receive up to \$40 billion in bribes each year (Transparency International).
- Estimated private sector corruption alone accounts for \$515 billion or more annually, using the World Bank data (CSIS report, 2/2014).

(Transparency International, Forbes 1/2015)

Economics of Bribery Literature

- Modern literature began with the work of Rose-Ackerman (1975, 1978).
- Despite numerous studies of macro-level corruption, micro evidence on causes of corruption is still rare.
- Key findings at the firm level are that bribery is significantly determined by the political economy of the focal firm's industry (Svensson 2003), the focal firm's ownership type (Clarke and Xu 2004; Jeong and Weiner 2012; Chavis 2013), and the focal firm's financial characteristics (Clarke and Xu 2004; Chavis 2013).

Unresolved Issues in the Literature

- Self-reporting
 - The focus on self-reporting led Svensson (2003), in what is the pioneering empirical study of which firms bribe, to say that he could not use even his very well-crafted survey questions about similar firms in the same line of business to study levels in actual bribes made by focal companies.

- Role of social comparison effects
 - The literature has primarily focused on bargaining power-based determinants of bribery and left out other plausible determinants like social comparison effects, including the effect of relative company status (drawing on theories from economic sociology).

Primary Research Questions

- At a fundamental level, why might companies engage in large-scale bribery?
- How might a firm's relative socio-economic status matter for its decision on whether to pay and how much bribes to government actors?
- What is the role of political ties in companies' bribery decisions?

How Economists Have Historically Viewed Status

- Adam Smith (1759/1976)
 - Mankind is more predisposed to sympathize with joy than with sorrow.
 - Because those of the highest rank are believed to have the most joy, people ultimately put the acquisition of wealth and rank above all else, and show maximum deference to those with the highest status.
- Veblen (1899)
 - The “usual basis of self-respect is the respect accorded by one’s neighbors.”
 - Higher status actors receive deference from lower status ones, and such deference enables higher status actors to increase their monetary earnings.
 - Higher status actors can also secure more favorable outcomes in the marriage matching market.
- Ball et al. (2001)
 - “A ranking in a hierarchy that is socially recognized and typically carries with it the expectation of entitlement to certain resources.”

How Sociology Has Recently Viewed Status and Maverick Behavior/Deviance

- Phillips and Zuckerman (2001) brought forth a renaissance of research on the connection between status and conformity by contributing a more specified theory as well as rigorous empirical support for the idea that middling or middle status leads to absolute or near-absolute conformity to social norms and rules.

What We Are Proposing Here: A Theory of “Falling High Status”

Falling High Status

historically endowed
high social status, but
facing current-time
middling economic
performance



Low

Middle

High

Status Continuum

Main Ingredients of a Theory of Falling High Status

- Focal firm has a strong historical endowment of status.
- Focal firm, however, also has experienced recent deterioration in operational performance relative to peers.
- Focal firm cannot compete effectively through market means of R&D/Marketing/Human Resource Training.
- Focal firm fears further drop in status to middle status.
- Focal firm retains cash and other resources necessary for large-scale bribery.
- Focal firm believes that gains to bribery can then be invested in market-based capabilities over the longer term.

Research Context: South Korea's Trial of the Century

- Two successive leaders of South Korea, Chun (1980-1987) and Roh (1988-1992) were prosecuted and their internal accounting books were unexpectedly opened up to the world by the parliamentary investigation and court investigation. The public trials took place through 1996.



Data: Bribery

■ Court Data

- Seoul District Court, Seoul High Court (1996)
- Sample - 40 business groups with audited financial data between 1987-1992; each among these 40 business groups had multiple affiliates (with 589 affiliates meeting the minimal standard to be required to have publicly audited financials)
- Total bribes of KRW 220.5 billion (\$256mil.) to Chun during the fifth republic
- Total bribes of KRW 283.9 billion (\$305mil.) to Roh during the sixth republic

■ National Assembly Investigation Data

- Special investigative report (1990) published as a result of the national hearings on high-level corruption scandals during the fifth republic in 1988.
- Contributions made by businesses to key quasi-foundations that Chun and his wife established.

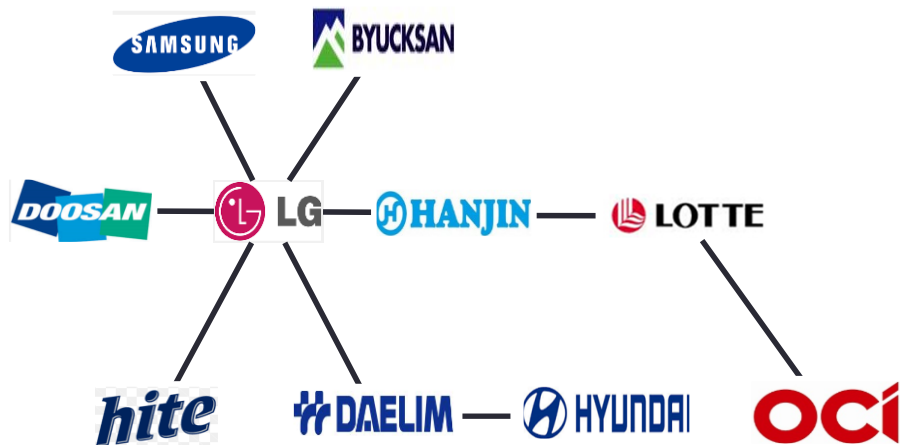
Data: Other

- Audited Financial Data
 - National Information and Credit Evaluation (NICE), 1987 onward
- Status Data
 - Marriage ties among business groups in South Korea; these data were collected and checked over time based on a large number of archival sources.
 - Business groups' labor market status in the annual reports of The Korea Economic Daily Media Group's Monthly *Recruit* (various years).

Marriage Network among South Korean Business Groups

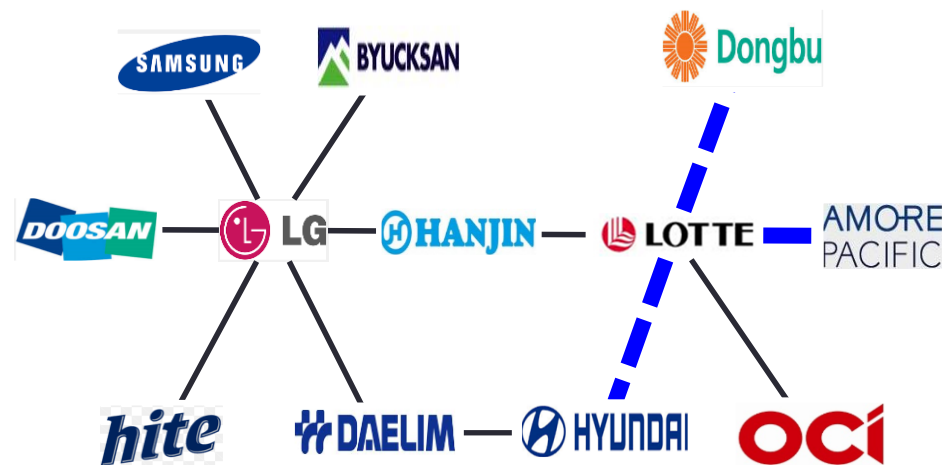
1987

At the beginning of the sample time period



1992

At the end of the sample time period



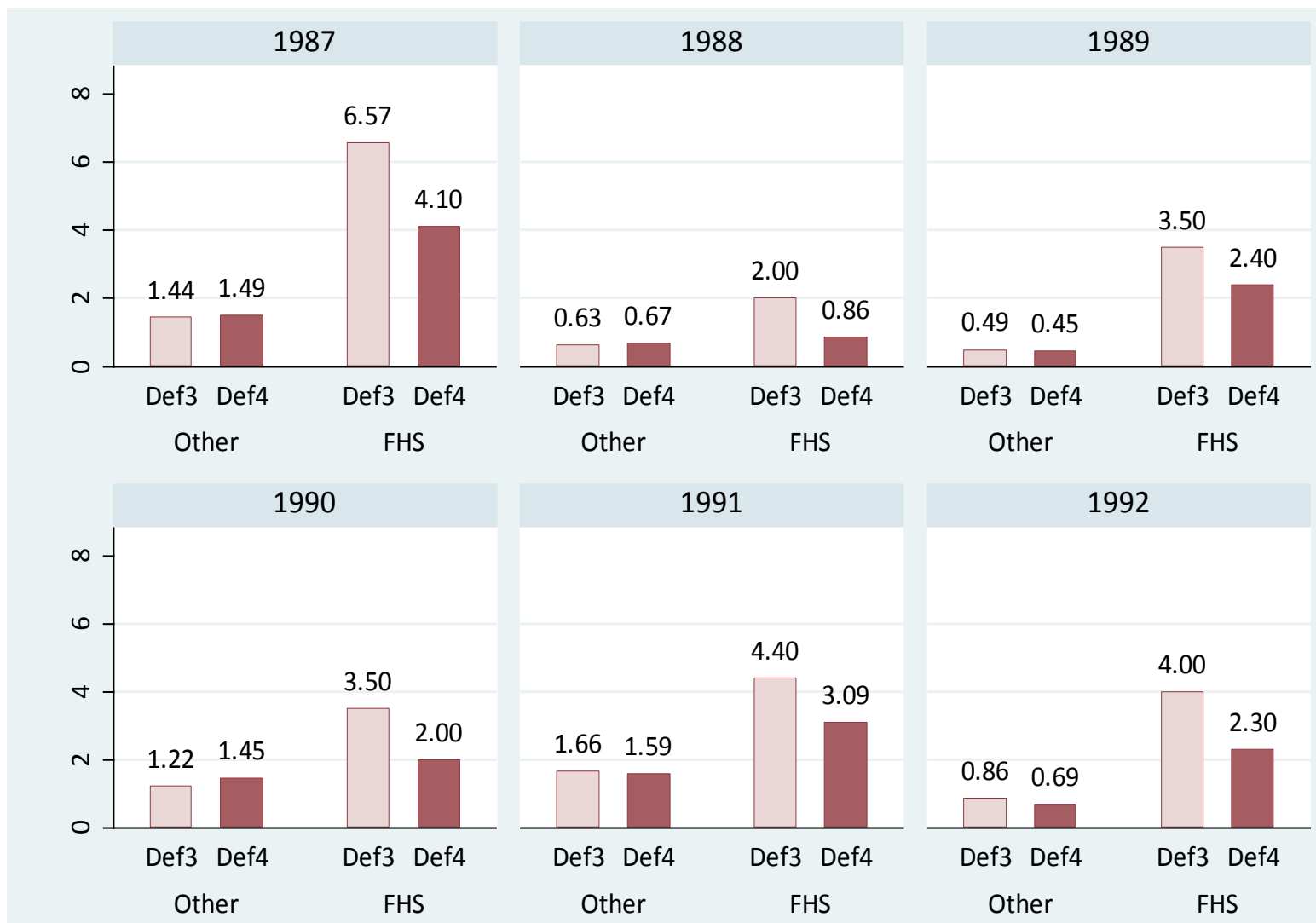
Defining Falling High Status

- Definition 1: High status employer from 1986 Recruit survey but with middling recent economic performance
- Definition 2: High status in year 1987 marriage network among Korean business groups but with middling recent economic performance
- Definition 3: High status employer for that year from annual Recruit survey but with middling recent economic performance
- Definition 4: High status in this year's marriage network among Korean business groups but with middling recent economic performance

Business Group Characteristics

Panel B. Panel Data (1987-1992)	N	Mean	Median	Std.Dev.	Min.	Max.
Yearly Bribe Paid by Business Group (unit: KRW billion)	237	1.45	0	2.54	0	14
Falling High Status, Definition 1 ^a	237	0.13	0	0.33	0	1
Falling High Status, Definition 2 ^b	237	0.66	0	2.07	0	10.82
Falling High Status, Definition 3 ^c	237	0.12	0	0.33	0	1
Falling High Status, Definition 4 ^d	237	0.77	0	2.20	0	11.39
Marriage Tie to a Senior Gov't Official or Politician by 1987	237	0.52	1	0.50	0	1
Marriage Tie to a Senior Gov't Official or Politician by This Year	237	0.57	1	0.50	0	1
Group Has School or Marriage Tie to Chun or Roh	237	0.17	0	0.37	0	1
Group Has Its Orgins in the Jeolla Region	237	0.10	0	0.30	0	1
Group ROA by Year	237	5.79	5.84	3.18	-10.37	16.50
Industry-adjusted ROA	237	0.04	-0.13	2.58	-9.78	10.28
Export Intensity	237	-0.06	-3.80	17.76	-17.84	68.92
Advertising Intensity	237	0.01	-0.65	1.68	-1.14	6.52
R&D Intensity	237	0.00	-0.09	0.29	-0.15	1.75
Training Expenditure Intensity	237	0.00	-0.37	1.48	-0.89	12.62

Comparison of Means of Total Group Bribery by Year: Falling High Status Group vs. Other



Empirical Analysis

- Pooled Cross-sectional Analysis at the Business Group Level Using:

$$\begin{aligned} \text{Six-year Sum of Each Business Group's Bribery}_i = & \\ & \alpha_0 + \alpha_1 \text{FallingHighStatus}_i + \sum \alpha_j \text{RelationalTies}_{j,i} + \\ & \sum \alpha_k \text{FinancialCharacteristics}_{k,i} + u_i \end{aligned}$$

- Panel Analysis at the Business Group Level Using:

$$\begin{aligned} \text{Yearly Bribe Paid by Business Group}_{it} = & \\ & \beta_0 + \beta_1 \text{FallingHighStatus}_{it} + \sum \beta_j \text{RelationalTies}_{j,it} + \\ & \sum \beta_k \text{FinancialCharacteristics}_{k,it} + \sum \beta_t \text{Year}_t + (\sum \beta_g \text{Group}_g) + \varepsilon_{it} \end{aligned}$$

Pooled Cross-sectional Results

Dependent variable: Six-year Sum of Each Business Group's Bribery	(3)	(4)	(5)	(6)
	FHS Definition 1 ^a		FHS Definition 2 ^b	
Falling High Status (FHS)	19.962*** (3.213)	21.434*** (2.801)	1.224** (0.500)	1.394** (0.517)
Marriage Tie to a Senior Gov't Official or Politician by 1987		-4.056 (2.518)		-2.809 (3.281)
Group Has School or Marriage Tie to Chun or Roh	-0.151 (2.784)	0.747 (2.997)	3.872 (4.357)	4.701 (4.909)
Group Has Its Orgins in the Jeolla Region	-4.156 (4.512)	-4.066 (3.983)	-5.595 (4.574)	-5.577 (4.268)

From Table 3

Controlling for Group ROA, Group ROA Relative to Peers, Export Intensity, Export Intensity Squared, R&D Intensity, R&D Intensity Squared, Advertising Intensity, Advertising Intensity Squared, Training Expenditure Intensity, and Training Expenditure Squared

Simple Panel OLS Results

Dependent variable: Yearly Bribe Paid by Business Group	(9)	(10)	(11)	(12)	(13)	(14)
	FHS Definition 3 ^c			FHS Definition 4 ^d		
Falling High Status (FHS)	2.875*** (0.669)	2.989*** (0.663)	2.933*** (0.668)	0.333*** (0.106)	0.357*** (0.104)	0.354*** (0.105)
Marriage Tie to a Senior Gov't Official or Politician by This Year		-0.57 (0.436)			-0.59 (0.471)	
Marriage Tie to a Senior Gov't Official or Politician by 1987			-0.37 (0.418)			-0.476 (0.448)
Group Has School or Marriage Tie to Chun or Roh	-0.016 (0.551)	0.125 (0.584)	0.03 (0.583)	0.523 (0.611)	0.697 (0.682)	0.604 (0.647)
Group Has Its Orgins in the Jeolla Region	-0.814* (0.473)	-0.901** (0.424)	-0.831* (0.430)	-0.780* (0.439)	-0.860** (0.415)	-0.790* (0.408)

From Table 4

Controlling for Group ROA, Group ROA Relative to Peers, Export Intensity, Export Intensity Squared, R&D Intensity, Advertising Intensity, Advertising Intensity Squared, Training Expenditure Intensity, Training Expenditure Squared, and Year Fixed Effects

Poisson QMLE Regressions with Group Fixed Effects and Clustered Standard Errors

Dependent variable: Yearly Bribe Paid by Business Group	(1) FHS Definition 2 ^a	(2) FHS Definition 4 ^b
Falling High Status (FHS)	0.202* (0.104)	0.164** (0.081)
Marriage Tie to a Senior Gov't Official or Politician by This Year		-1.044* (0.621)
Group Has School or Marriage Tie to Chun or Roh	-12.010*** (1.132)	-12.123*** (1.163)

From Table 7

Controlling for Log of Group Assets, Leverage, Group ROA, Group ROA Relative to Peers, Export Intensity, R&D Intensity, Advertising Intensity, Training Expenditure Intensity, Middling ROA Performance, Bonacich Panel Measure of Status (Model (2) only), Group Fixed Effects, and Year Fixed Effects

Economic Significance

Dependent variable: Yearly Bribe Paid by Business Group	(2) FHS Definition 4 ^b
Falling High Status (FHS)	0.164** (0.081)

From Table 7

For a one unit change in the Falling High Status, the difference in the logs of expected counts is expected to increase by the coefficient (0.164), given the other predictor variables in the model are held constant.

Take the example starting with the DV at its mean; then holding all other variables constant, a one standard deviation increase in Falling High Status is associated with 2.59 billion won in additional annual bribes, which is economically significant.

Robustness Check - Taking the Prior Table and Adding Alternative Herfindahl Controls

Dependent variable: Yearly Bribe Paid by Business Group	(5)	(6)	(7)	(8)
	FHS Definition 4 ^b			
Falling High Status (FHS)	0.181** (0.080)	0.189** (0.081)	0.166** (0.080)	0.165** (0.079)
Marriage Tie to a Senior Gov't Official or Politician by This Year	-1.307*** (0.501)	-1.397*** (0.485)	-1.216** (0.576)	-1.128* (0.589)
Group Has School or Marriage Tie to Chun or Roh	-11.537*** (1.182)	-11.840*** (1.160)	-12.016*** (1.178)	-12.183*** (1.142)
	<u>Two Digit</u>	<u>Three Digit</u>	<u>Four Digit</u>	<u>Five Digit</u>
Asset Weighted Industry Herfindahl at Different Industry Digit Levels ^c	-5.413* (2.910)	-4.216 (2.626)	-1.651 (2.280)	-0.812 (1.767)

From Table 8

Controlling for Log of Group Assets, Leverage, Group ROA, Group ROA Relative to Peers, Export Intensity, R&D Intensity, Advertising Intensity, Training Expenditure Intensity, Middling ROA Performance, Bonacich Panel Measure of Status (Model (2) only), Group Fixed Effects, and Year Fixed Effects

Preliminary Conclusions

- Falling high status is a significant determinant of large-scale bribery in this study.
- In the most “rigorous” test, those with direct marriage/school ties pay far less in bribes.

Contributions and Policy Implications

- Seek to contribute to the corruption literature by providing evidence on the role of status in large-scale bribery using novel data.
- Insights from the study can help policy-makers and civil society to identify targeted ways to reduce corruption. To the extent law enforcement and the media face resource constraints in monitoring companies, it always pays to know which types of companies under which types of conditions should be most closely monitored.
- Lessons from the study can hopefully offer policy implications for a large set of approximately 50 emerging economies whose institutional contexts are similar to South Korea's pre-democratization and early democratization as well as to some extent for developed economies that have witnessed a surge of large-scale corporate bribery scandals in recent years.