Political Connections and Corporate Bailouts

MARA FACCIO, RONALD W. MASULIS, and JOHN J. McCONNELL[*]

ABSTRACT

We analyze the likelihood of government bailouts of 450 politically connected firms from 35 countries during 1997–2002. Politically connected firms are significantly more likely to be bailed out than similar nonconnected firms. Additionally, politically connected firms are disproportionately more likely to be bailed out when the International Monetary Fund or the World Bank provides financial assistance to the firm's home government. Further, among bailed-out firms, those that are politically connected exhibit significantly worse financial performance than their nonconnected peers at the time of and following the bailout. This evidence suggests that, at least in some countries, political connections influence the allocation of capital through the mechanism of financial assistance when connected companies confront economic distress.

ANECDOTAL EVIDENCE INDICATES THAT, at least in some countries, politically connected firms have preferential access to debt financing.[1] Empirical evidence supports the anecdotal evidence: Chiu and Joh (2004), Cull and Xu (2005), Faccio (2003), Johnson and Mitton (2003), and Khwaja and Mian (2005) show that politically connected (but publicly traded) firms have higher leverage ratios than their nonconnected peers. This evidence begs the question as to what it is about politically connected firms that makes lenders more willing to extend credit to them. It could be that lenders receive direct economic support from the governments to which the firms are connected. Or, it could be that lenders are coerced into making economically questionable loans to politicians' friends. Or, it could be that lenders rely upon an implicit government guarantee that politically connected borrowers or lenders will be bailed out should they encounter financial difficulties. For example, Hutchcroft (1998, p. 138) describes how troubled banks that lent to Philippines President Marcos and his cronies

[1] See, for example, Backman (1999), Calvi and Meurice (1999), Gay and Monnot (1999), Gomez and Jomo (1997), *Financial Times*, "Fiat—The Lex Column" (June 26, 2003), *The New York Times*, "Indonesia's repo man: Eko Budianto has ordered corporate cronies from the Suharto regime to pay back the billions they owe Indonesian banks or he'll seize their assets, even if it means enlisting the army to help him" (July 31, 1999).

enjoyed important privileges, including "emergency loans and generous equity infusions from state banks." Backman (1999) observes that one of the unfortunate by-products of international aid packages is that they facilitate such economic cronyism.

In this study, we undertake a systematic examination of the link between political connections and corporate bailouts. To do so, we study 450 politically connected firms in 35 countries over the period 1997 through 2002, along with a set of matching firms. We address questions such as: Do political connections lead to preferential corporate bailouts? Are bailouts of politically connected firms more likely in countries that receive International Monetary Fund (IMF) or World Bank (WB) rescue packages? Is the financial performance of politically connected bailed-out firms different from that of nonconnected bailed-out firms?

The answer to the first question is yes. After controlling for other factors, politically connected (but publicly traded) firms are more likely to be bailed out than are their nonconnected peers. With regard to the second question, both connected and nonconnected firms are more likely to be bailed out when their home government receives an IMF or WB assistance package than when it does not. Additionally, and consistent with the allegations of some critics, when the IMF or WB provides aid, politically connected firms are disproportionately more likely to be bailed out by their home countries in comparison to their nonconnected peers. With regard to the third question, the answer is again yes. Among bailed-out firms, those that are politically connected exhibit significantly poorer operating performance than their nonconnected peers at the time of the bailout and over the following 2 years. Furthermore, consistent with prior empirical and anecdotal evidence, connected firms make greater use of debt financing than do their nonconnected peers.

The evidence that politically connected firms make greater use of leverage is subject to a number of possible interpretations. One possibility is that lenders are irrational. A second is that they are coerced into making poor loans to politically connected enterprises. A third is that lenders receive offsetting government benefits for making such loans. Yet another possibility is that lenders factor into their lending decisions the likelihood that borrowers will be bailed out when they encounter economic distress, and thus lend more to politically connected firms who are, in turn, more likely to be bailed out than their nonconnected peers.

The evidence that we present is consistent with the last interpretation. Specifically, politically connected firms borrow more than nonconnected firms, but they are also more likely to be bailed out by their home governments when they encounter economic turbulence.[2] Furthermore, lenders to connected firms appear to grant such firms greater leeway in that these firms have poorer operating performance just prior to the bailout than nonconnected firms that are

---

[2] The study on bailouts closest to ours is probably that of Brown and Dinç (2005), who investigate whether, in emerging markets, governments are more likely to bail out banks after elections. Their evidence is consistent with the hypothesis that governments tend to minimize the costs of political intervention before elections and, therefore, intervene with bailouts after elections. Their study does not investigate which specific companies are more likely to be bailed out.

bailed out. They also have significantly greater leverage after their bailouts than nonconnected firms. While our evidence indicates that lenders are willing to lend more to connected borrowers because they can reasonably anticipate a future bailout of troubled loans to these borrowers, our data do not rule out the possibilities that lenders may also sometimes be pressured into making weak loans and/or that lenders may receive benefits for extending such loans.

Tracing through to the ultimate beneficiaries of a bailout is difficult. At one level, creditors benefit because they are bailed out of troubled loans; however, if the bailout is priced ex ante, creditors will receive a fair return on their capital (on an average). At a deeper level, shareholders benefit because, if the bailout is priced ex ante, their firms are able to borrow at favorable terms, given their credit standing. Of course, politicians may be the ultimate net beneficiaries, because they are able to extract most or all of the rents from borrowers, lenders, and other stakeholders (Bertrand et al. (2004), Shleifer and Vishny (1994)). In this study, we are not able to identify the ultimate beneficiaries of this system of political connections and bailouts.

One issue that this paper does illuminate is one channel through which political connections affect corporate value. In particular, papers by Roberts (1990), Fisman (2001), and Faccio (2006) show that the equity value of politically connected firms can be affected by political events. This study shows that one channel through which political connections can influence firm value is corporate bailouts. For example, Fisman finds that share prices of Indonesian companies linked to President Suharto declined in response to bad news about the state of the president's health. It is possible that the fluctuations in share prices were due, at least in part, to decreases in the probability of future bailouts that Suharto's regime would have facilitated had the connected companies experienced future financial difficulties.

This study also adds to the literature that examines rent-seeking behavior in the public sector. Krueger (1974) argues that entrepreneurs spend time and money persuading government officials to grant them access to economic rents. At the aggregate level, she shows that these rents represent a significant percentage of a nation's GDP in some developing countries. More recently, Stulz (2005) presents a model that explores the interaction between private benefits of control and the risk of government expropriation. He observes that entrenched managers with limited cash flow rights have greater incentives to seek rents in terms of preferential government policies. In one study of rent-seeking behavior by entrepreneurs, Morck, Stangeland, and Yeung (2000) study the political influence of billionaires across 41 countries. They uncover evidence that billionaire heirs are often successful in creating government-enforced barriers to competition by restricting access to capital. Our study contributes to this literature by exploring a specific mechanism through which economic agents, whether entrepreneurs, lenders, or the politicians themselves, may be able to use political influence to extract economic rents from the public sector.

The remainder of the paper is organized as follows. Section I presents the definitions and data sources we use in assembling a sample of politically connected

companies and a set of nonconnected matching firms. Section II describes our methodology for identifying corporate and country bailouts. Section III presents evidence on the determinants of corporate bailouts. Section IV analyzes the operating performance and financial leverage of bailed-out companies. Section V presents various sensitivity analyses in which we employ alternative specifications of the sample to evaluate the robustness of the results. According to these analyses, our results on the relationship between political connections and bailouts are robust to the exclusion of particular countries, the exclusion of specific industries, and alternative definitions of connections and bailouts. We also determine that our results are not due to reverse causality: that is, recently established connections do not lead to more bailouts than do long-term connections. Finally, we show that the results are not due to a media bias in reporting bailouts of connected firms. Section VI provides commentary and conclusions.

I. Identification of Politically Connected Firms

A. Political Connections Defined

   To address the questions concerning corporate bailouts, we begin with the set of politically connected firms described in Faccio (2006). From this database, we extract all firms identified as being politically connected as of January 1, 1997. We require that the connection be in place prior to our period of analysis, so as to avoid cases wherein the connection was established coincident with or subsequent to the bailout. Thus, a company is defined as politically connected if at least one of its top officers (defined as the company's chief executive officer, chairman of the board (COB), president, vice-president, or secretary of the board) or a large shareholder (defined as anyone controlling at least 10% of the company's voting shares) was head of state (i.e., president, king, or prime minister), a government minister (as defined below), or a member of the national parliament, as of the beginning of 1997. For example, Italian senator Giovanni Agnelli was COB of Instituto Finanziario Industriale (IFI), the holding company of the Fiat group; thus, we classify IFI as connected with a member of parliament through a top officer. Mr. Agnelli also held in excess of 10% of the voting stocks of 17 Italian publicly traded companies, including IFI, IFIL, Fiat, and Toro Assicurazioni. We define each of these companies as connected with a member of parliament through share ownership by a large shareholder. Likewise, as of 1997, Russia's Prime Minister Viktor Chernomyrdin held in excess of 10% of the outstanding voting stock of Gazprom RAO. Thus, we define this company as connected with a head of state through his share ownership. Each of the above examples can be thought of as "direct" connections.

   We identify a second category of connections, as "indirect connections." These can come about in one of three ways. First, we classify a company as indirectly connected if a relative with the same last name as a head of state or minister is a top officer or a large shareholder, as defined above, as of 1997. For example, Malaysian Prime Minister Mahathir's middle son, Mokhzani Mahathir,

is the COB of Konsortium Perkapalan Bhd, so that we classify Konsortium as indirectly connected with a head of state through a top executive. Second, we classify a company as indirectly connected when a top executive or a large shareholder has been described by *The Economist*, *Forbes*, or *Fortune* as having a "friendship" with a head of state, government minister, or member of parliament during 1997. Third, we classify a company as indirectly connected if a prior study identifies such a relationship as having been in place prior to January 1, 1997. Such prior studies include Agrawal and Knoeber (2001) for the United States; Backman (1999) for Asia; Gomez and Jomo (1997) and Johnson and Mitton (2003) for Malaysia; and Fisman (2001) for Indonesia. In total, these prior studies identify 96 politically connected firms.

B. Data Sources for Political Connections

The data we use to identify political connections come from a variety of publicly available sources. We obtain names of heads of state, members of parliament, and government ministers from the *Chiefs of State and Cabinet Members of Foreign Governments* (U.S. Central Intelligence Agency, 1997) and the official web site of each country's government and/or parliament (Appendix A, Panels A and B). We then cross-reference names of these persons with the names of the top executives (as defined above) of the 20,202 publicly traded companies covered in Worldscope as of 1997. For companies covered by Worldscope, but where executives' names are missing, we collect names from Extel, the company's web site, or Lexis-Nexis.[3] The starting points for identifying the names of large shareholders are Claessens et al. (2000) for East Asian countries and Faccio and Lang (2002) for western European countries. We supplement these data for countries or companies not covered by the above sources with lists published by each country's stock exchange or supervisory authority as detailed in Appendix A, Panel C, and with data from Worldscope and Extel. To determine whether a top executive or a large shareholder with the same last name as a head of state or minister is a relative, we search Lexis-Nexis for evidence of a family relationship. If Lexis-Nexis identifies the parties as related, we include the observation as an indirect connection.

The search covers 47 countries and identifies 458 politically connected companies in 35 countries. From this sample, we exclude eight companies whose connections are with foreign politicians (because we are interested in home-country connections, which are most likely to lead to home-country bailouts), leaving 450 politically connected companies.

Undoubtedly, this search procedure overlooks some instances of politically powerful connections, and in other cases it gives credit to political connections that are less powerful than they might appear. More importantly, we believe that, to the extent that this procedure leads to a sample bias, the bias is likely to understate the importance of political connections.

---

[3] Worldscope does not provide executives' names for less than 10% of the firms in our sample.

C. Matching Companies

In much of our analysis, we compare the propensity of politically connected firms to be bailed out relative to a set of matching nonconnected peers. We identify a matching nonconnected firm for each of our politically connected firms as follows. A potential match is any company not identified as politically connected from the same country with the same two-digit Standard Industrial Classification code as the connected firm. From the set of potential matches, we select the one with equity market capitalization closest to that of the connected firm at year-end 1996, provided its equity market capitalization is within ±40% of the connected firm's market capitalization (282 matches). If no company satisfies these criteria, we broaden the industry classification to Campbell's (1996) industry classification measure and repeat the procedure (87 additional matches). If still no match results for a connected firm, we select the firm with the closest market capitalization to the connected company using Campbell's industry classification, but from any country (a further 81 matches). Because matching occurs without replacement, a matching firm can be used only once.

Connected firms come from a broad array of industries. These include petroleum (9), consumer durables (62), basic industry (43), food and tobacco (25), construction (37), capital goods (19), transportation (23), utilities (30), textile/trade (28), services (24), leisure (26), banks (47), miscellaneous financial firms (74), and other industries (3). Table I summarizes selected financial data for the connected and nonconnected firms. The data come from the companies' financial statements that are closest in time to December 31, 1996, and no more than 6 months from that date. The table gives the means and medians of equity market capitalization (calculated as the number of shares outstanding multiplied by the price per share at year-end 1996), return on assets (*ROA*) (calculated as annual earnings before interest and taxes divided by year-end total assets), the standard deviation of stock returns (calculated with 36 monthly returns prior to year-end 1996, if available, but no less than 12 months of returns), and the total debt-to-total assets ratio (*Leverage*) (calculated as short-term debt plus the current portion of long-term debt plus long-term debt divided by total assets). Data for these calculations are from Worldscope.

Despite matching the companies on stock market capitalization, connected firms are significantly larger than their nonconnected peers. For example, the median market capitalization of connected firms is $520 million in comparison with a median market value of $407 million for their nonconnected peers. As regards earnings, connected firms have a higher mean *ROA* than nonconnected firms, but the median *ROA* is lower. In neither case is the difference statistically significant at the 0.10 level. Table I also shows that the mean and median standard deviations of equity returns for the two samples are not statistically different from each other.

Of course, part of the motivation for this study derives from previous studies that document that connected firms have greater leverage. The data in Table I show that, indeed, connected firms do make greater use of debt than their nonconnected peers, and the difference between them is statistically significant

Table I

Selected Financial Data for Politically Connected Firms and Their Matching Peers

Means and medians of selected financial characteristics for a sample of 450 politically connected firms and their matching peers. *mkcapUS$* is the company's market capitalization calculated as number of shares outstanding times price per share at year-end 1996 (in millions of U.S. dollars). *ROA* is annual earnings before interest and taxes divided by year-end total assets times 100 from the company's financial report closest to year-end 1996. *SD* is the standard deviation of monthly stock returns calculated with 36 monthly returns prior to year-end 1996, if available, but no less than 12 monthly returns. *Leverage* is short-term debt plus the current portion of long-term debt plus long-term debt divided by total assets times 100 from the company's financial report closest to year-end 1996. *p*-Values for difference between means are based on the *t*-test for dependent samples. *p*-Values for difference between medians are based on the Wilcoxon matched-pairs test.

	Connected Firms		Matching Firms		*t*-Test *p*-Value	Wilcoxon Test *p*-Value
	Mean	Median	Mean	Median		
mkcapUS$	2,925.02	519.93	2,390.88	406.81	0.08	0.00
ROA (%)	6.53	4.97	6.13	5.77	0.56	0.87
SD (%)	10.07	9.00	10.45	9.20	0.21	0.28
Leverage (%)	28.16	25.21	25.25	23.28	0.01	0.04

(the *p*-value for the mean difference is 0.01 and the *p*-value for the median difference is 0.04).

II. Corporate and Country Bailouts

A. Corporate Bailouts

We are interested in financially troubled firms that receive a transfer payment or capital infusion from their home government so as to avoid failure or dissolution. To identify such firms, we conduct keyword searches of Lexis-Nexis and Factiva for the period January 1, 1997 through December 31, 2002 using (i) the name of each of our connected companies, (ii) the name of each matching firm, (iii) the terms "bailout," "bail-out," "bailed out," "rescue," "rescue package," "injection," "restructur*," and "aid," and (iv) the words "government" or "state." To minimize loss in sample size, we use Lexis-Nexis, Extel Financial, and Worldscope to track company name changes.

Given this set of bailout candidates, we verified from Lexis-Nexis and Factiva news articles that the deal in question involved a funds transfer (or capital infusion) to the company from its home government. Such transfers include direct cash payments, purchases of newly issued debt or equity, government subsidized loans, government loan guarantees, tax relief tied directly to the bailout, and government purchases of company assets.[4]

---

[4] This definition captures most cases of aid to publicly traded firms, as well as renationalizations of former state-owned enterprises. Additional cases in which a government makes a primary or secondary purchase of equity, which are not associated with our keywords, are considered in Section V.D.

One example of a bailout is that of the French company Groupe Bull SA. A news article states that "The European Commission approved a 450 million euros French government bailout to technology company Groupe Bull SA. The commission said the French government had complied with all European Union rules on 'rescue aid' for a company in difficulty since the French government granted the loan at market rates."[5] The article uses the keywords *bailout* and *rescue aid*, which we employ in the search. Given that the article uses the term "rescue aid," we assume that Groupe Bull is financially distressed. A second example is that of Russia's Norilsk Nickel. In this case, the title of the article contains the keyword "aid": "Russian parliament approves Norilsk aid proposals" and the text states that "Russia's State Duma lower parliament house approved on Wednesday recommendations that the government support the financially-troubled Norilsk Nickel metals group and extend its control over shares."[6] This case fits our criteria in that the article notes that the company is financially troubled and cites forthcoming government assistance. Appendix B reports news accounts taken from Lexis-Nexis for 10 of our bailouts.

Note that, in some cases in which the words "injection," "restructur*," and "aid" are the keyword hits, we cannot establish from press reports whether the company mentioned in the article is in financial distress. For example, an article published on December 1, 2001 states that "The Irish government delivered a grant aid package to Volex Ltd. (Castlebar, Ireland), a subsidiary of Volex Group plc (England), to assist it in the funding of a fiber-optic development center in Castlebar. The development center will provide support to individual business units and regions of the company for the research and development of optical-fiber products and processes while delivering automated production systems and equipment for fiber-optic cable assemblies and components."[7] Because we cannot ascertain that the "grant aid package" represents financial assistance to an ailing company, we do not treat this grant as a bailout in our primary analysis.

We recognize that connected firms may enjoy benefits other than those that we classify as bailouts. Furthermore, connected firms can be bailed out in ways that escape detection by our search algorithm. Nevertheless, we confine ourselves to the previously mentioned keywords, as they are most likely to capture the type of bailouts that we wish to study. One other potential shortcoming of our search is that we only examine articles written in English. Given that we are interested in whether connected companies are more likely to be bailed out than are nonconnected matching companies, we believe that this procedure will be neutral with respect to the detection of bailouts in the two samples.

Because we are interested in whether a specific firm is bailed out, not in the total number of bailouts, and because some firms are bailed out more than once, the total number of bailouts exceeds the number of bailed-out firms. In

---

[5] *The Wall Street Journal Europe*, 2002, Companies: EU approves bailout of French firm Bull, November 14.

[6] Reuters News, February 19, 1997.

[7] *Lightwave*, 2001, The Irish government delivered a grant aid package to Volex Ltd, December 1.

particular, the time series consists of 7 bailouts in 1997, 23 in 1998, 17 in 1999, 19 in 2000, 14 in 2001, and 14 in 2002. There were 14 firms that were bailed out twice and 4 firms that were bailed out three or more times. That is, we classify 71 different firms out of the 900 in our combined sample of politically connected firms and their peers as receiving a bailout at least once during our sample period. Of these, 51 are politically connected. Thus, politically connected firms are more than twice as likely to be bailed out as their nonconnected peers.

Table II reports firms by type of political connection and frequency of bailouts. With respect to the connected firms (first column), 68% are connected by a "direct" connection. Of these, 80.4% involve a top officer who is a politician, 14.4% involve a large shareholder who is a politician, and 5.2% involve a large shareholder who also is a top officer and a politician. The other one-third of connected firms are connected by an indirect connection. Of these, the great majority, 64%, were identified from prior studies. Five firms are connected by both a direct and an indirect connection.

With regard to bailouts of firms shown in Table II, one bailed-out firm has both a direct and an indirect political connection, 22 have a direct connection, and 28 have an indirect connection. Thus, indirectly connected firms represent a disproportionate fraction of politically connected bailouts (7.52% of directly connected firms are bailed out, in comparison to 19.46% of indirectly connected firms).

Turning to the matching firms, several observations can be made. First, the table shows that connected firms are significantly more likely to be bailed out than are their nonconnected peers. Second, just as with directly connected firms, peers of indirectly connected firms are disproportionately more likely to be bailed out in comparison to peers of directly connected firms (the frequency of peer bailouts is 6.04% for indirectly connected firms vs. 3.59% for directly connected firms).

Table III gives the distribution of politically connected companies by country along with the distribution of bailouts by country. Ten countries have at least 10 politically connected firms. The most heavily represented countries, in alphabetical order, are France (16), Germany (10), Indonesia (27), Italy (21), Japan (30), Malaysia (81), Singapore (16), Thailand (32), the United Kingdom (118), and the United States (10). This set includes both highly developed and less well developed countries, and countries with very different degrees of corruption. For example, as the table shows, *GDP per capita* ranges from a high of $33,450 in Luxembourg to a low of $1,939 in India, while perceived corruption, as measured by the Kaufmann et al. (2003) index, ranges from a minimum of 0.74 in Denmark to a maximum of 6.60 in Indonesia.[8]

One aspect that is immediately eye-catching is the large number of connected-firm bailouts in Malaysia, which has 17 of the 51 connected-firm bailouts. In comparison, only 3 of the 20 nonconnected bailouts are from Malaysia. The percentage of connected firms that are bailed out is particularly high in Australia

---

[8] We describe the Kaufman Index in detail in Section III.A.

Table II

Distribution of Bailed-Out Firms by Type of Connection, 1997–2002

This table gives politically connected firms by type of political connection. Direct connections include connections through a top officer and connections through a large shareholder. A company is defined as connected through a top officer if the company's chief executive officer (CEO), chairman of the board (COB), president, vice-president, or secretary of the board was head of state (i.e., president, king, or prime minister), government minister, or a member of the national parliament as at the beginning of 1997. A company is defined as connected through a large shareholder if anyone controlling at least 10% of the company's voting shares was head of state (i.e., president, king, or prime minister), government minister, or a member of the national parliament as at the beginning of 1997. Indirect connections can come about in one of three ways. (1) A company is considered to be connected through an indirect connection if a relative with the same last name as a head of state or minister was a top officer or large shareholder, as defined above, as at the beginning of 1997. (2) A company is considered to be connected through an indirect connection when a top executive or large shareholder has an indirect connection if a relative with the same last name as a head of state, a government minister, or a member of parliament during 1997. (3) A company is considered to be connected through an indirect connection if such a relationship has been identified in prior studies: been described by *The Economist, Forbes,* or *Fortune* as having a friendship with a head of state, a government minister, or a member of parliament (2001) for Indonesia. A given company may fall into more than one of the above groups. *p*-Values for equality of proportions are reported in the table. Agrawal and Knoeber (2001) for the U.S.; Backman (1999) for Asia; Gomez and Jomo (1997) and Johnson and Mitton (2003) for Malaysia; and Fisman

Type of Political Connection	No. of Politically Connected Firms	No. of Bailed-Out Connected Firms	% of Bailed-Out Connected Firms (A)	No. of Bailed-Out Matching Firms	% of Bailed-Out Matching Firms (B)	Diff. (A) − (B)	*p*-Value for Equality of Proportions
Panel A: "Direct" Connections							
Connected through a top officer	262	17	6.49	6	2.29	4.20	0.02
Connected through a large shareholder	60	6	10.00	5	8.33	1.67	0.75
Total "direct" connections[a]	306	23	7.52	11	3.59	3.92	0.03
Panel B: "Indirect" Connections							
Connected through a relative or a close friendship	57	4	7.02	4	7.02	0.00	1.00
Connections based on prior studies	96	25	26.04	5	5.21	20.83	0.00
Total "indirect" connections	149	29	19.46	9	6.04	13.42	0.00

[a]There are 16 companies that have both a connection with a top officer and a large shareholder.

<div align="center">

Table III

Distribution of Politically Connected Firms and Corporate Bailouts from 35 Countries, 1997–2002

</div>

The sample includes 450 politically connected firms and 450 matching peers from 35 countries. As first-best, a match is identified as a firm from the same country with the same two-digit SIC code and market capitalization within ±40% of the connected firm's. If no company satisfies such criteria, a matching firm is selected based on country, market capitalization and Campbell's (1996) industry classification. If again no match is identified, a matching firm is selected with the closest market capitalization to the connected firm with the same Campbell industry, but from any country. *Corruption* is the 1997 and 1998 measure of perceived corruption from Kaufmann et al. (2003). The original index is scaled from −2.5 to 2.5; for our purposes, we rescale the index from 0 to 10 with higher scores representing higher corruption. *GDP per capita* is in constant 1995 international dollars, and refers to 1996.

Country	No. of Connected Firms	No. of Bailed-Out Connected Firms	% of Bailed-Out Connected Firms (A)	No. of Bailed-Out Matching Firms	% of Bailed-Out Matching Firms (B)	Diff. (A) − (B)	Corruption Index	GDP per Capita
Australia	2	2	100.0	0	0.0	100.0	1.80	21,780
Austria	1	0	0.0	0	0.0	0.0	2.09	22,829
Belgium	5	0	0.0	0	0.0	0.0	3.66	21,661
Canada	6	1	16.7	0	0.0	16.7	0.89	22,366
Chile	2	0	0.0	0	0.0	0.0	2.94	7,767
Denmark	7	0	0.0	0	0.0	0.0	0.74	23,871
Finland	2	0	0.0	0	0.0	0.0	0.83	19,441
France	16	1	6.3	1	6.3	0.0	2.44	21,066
Germany	10	0	0.0	1	10.0	−10.0	1.76	22,115
Greece	1	0	0.0	0	0.0	0.0	3.35	13,118
Hong Kong	7	0	0.0	0	0.0	0.0	2.37	21,966
Hungary	1	0	0.0	0	0.0	0.0	3.77	9,253
India	8	0	0.0	1	12.5	−12.5	5.61	1,939
Indonesia	27	5	18.5	3	11.1	7.4	6.60	2,934
Ireland	2	0	0.0	0	0.0	0.0	1.87	18,582
Israel	2	0	0.0	0	0.0	0.0	2.45	17,167
Italy	21	1	4.8	0	0.0	4.8	3.40	21,239
Japan	30	0	0.0	0	0.0	0.0	3.55	23,242
Luxembourg	1	0	0.0	0	0.0	0.0	1.66	33,450
Malaysia	81	17	21.0	3	3.7	17.3	3.73	7,599
Mexico	7	0	0.0	0	0.0	0.0	5.55	7,113
Netherlands	1	0	0.0	0	0.0	0.0	0.95	21,994
Philippines	5	1	20.0	1	20.0	0.0	5.46	3,513
Portugal	3	1	33.3	0	0.0	33.3	2.56	13,575
Russian Fed	4	2	50.0	0	0.0	50.0	6.23	5,753
Singapore	16	1	6.3	1	6.3	0.0	1.10	18,892
South Korea	7	1	14.3	1	14.3	0.0	4.68	12,431
Spain	1	0	0.0	0	0.0	0.0	2.57	15,936
Sweden	3	0	0.0	0	0.0	0.0	0.83	19,855
Switzerland	4	0	0.0	0	0.0	0.0	0.86	25,219
Taiwan	6	1	16.7	1	16.7	0.0	3.75	14,700
Thailand	32	11	34.4	4	12.5	21.9	5.33	6,275
Turkey	1	0	0.0	0	0.0	0.0	5.70	5,387
U.K.	118	5	4.2	3	2.5	1.7	1.59	20,527
U.S.	10	1	10.0	0	0.0	10.0	2.19	28,486
Full sample	450	51	11.3	20	4.4	6.9		

(100%), Russia (50%), Thailand (34.4%), and Portugal (33.3%). In 18 countries, we identify no bailouts. In Australia, Canada, Indonesia, Italy, Malaysia, Portugal, Russia, Thailand, the United States, and the United Kingdom, there are more bailouts of politically connected firms than of their nonconnected peers. In India and Germany, bailouts are actually more common among nonconnected matching firms than among politically connected firms.

On a univariate basis, according to our data, bailouts are more than twice as likely among politically connected firms than among their matching peers (51 vs. 20). If our matching procedure were perfect, we could conclude with no further analysis that connected firms are significantly more likely to be bailed out than nonconnected firms. However, because our matching procedure is unlikely to be perfect, in Section III we perform a multivariate analysis that controls for various factors that may influence the likelihood of a corporate bailout.

B. Country Bailouts

As we note at the outset, we are interested in whether IMF and WB aid packages play a role in corporate bailouts. This requires identifying instances in which either of these agencies provided financial assistance to the countries covered in our study. Ideally, we would require that the aid occur close in time to the company bailout. However, for companies that do not receive a bailout, such a demarcation is not possible because no aid package took place. For this reason, we include any assistance package that occurred over the interval 1996–2002 as an observation of country assistance. This broad categorization is likely to reduce the power of our tests to identify the effect of IMF and WB assistance on corporate bailouts.

For IMF loans, we obtain information from the *IMF History of Lending Arrangements*.[9] According to this history, during 1996–2002, Hungary, Indonesia, Mexico, the Philippines, the Russian Federation, South Korea, Thailand, and Turkey received one or more rounds of loans (either a Standby Arrangement or an Extended Fund Facility). Similarly, according to the WB web site, over the 1996–2002 interval, one or more WB loans were made to Chile, Hungary, India, Indonesia, Malaysia, Mexico, the Philippines, the Russian Federation, South Korea, Thailand, and Turkey.[10]

Panel A of Table IV documents two relationships between the presence of IMF/WB country loans and the frequency of firm bailouts. First, on a univariate basis, both connected and nonconnected firms are more likely to be bailed out in countries that receive WB/IMF aid packages than in those that do not (connected firms: 21.1% with WB/IMF aid and 5.1% without aid vs. nonconnected firms: 7.4% with aid and 2.5% without aid). Second, the data indicate that in countries that receive IMF/WB aid, connected firms are more likely to be

---

[9] Available at http://www.imf.org/external/np/tre/tad/extarr1.cfm.
[10] Available at http://web.worldbank.org/WBSITE/EXTERNAL/NEWS/0,menuPK:34471~pagePK:34396~piPK:34442~theSitePK:4607,00.html.

Table IV

Corporate Bailouts and IMF/WB Country Loans, 1997–2002

The sample includes 450 politically connected firms and 450 matching peers from 35 countries. The table classifies firms according to whether they were politically connected and whether their home country received assistance from the IMF or WB. Countries receiving IMF/WB loans are those that obtained an Extended Fund Facility loan or a Standby Arrangement loan from the IMF, or a loan from the WB during 1996–2002. *p*-Values for equality of proportions are reported in the table. In Panel A, firms with multiple bailouts are counted only once because we are interested in bailed-out firms. Panel B gives data for only the first bailout of a company following IMF or WB aid.

Panel A: Company Bailouts as Function of IMF/WB Country Loans				
	Countries Receiving IMF/WB Loans (A)	Countries Not Receiving IMF/WB Loans (B)	Difference in Percentages (A) − (B)	*p*-Value for Equality of Proportions
No. of connected firms	175	275		
No. of bailed-out connected firms	37	14		
% of bailed-out connected firms	21.1	5.1	16.0	0.00
No. of bailed-out matching firms	13	7		
% of bailed-out matching firms	7.4	2.5	4.9	0.01
Difference in percentages	13.7	2.6	11.1	0.00
p-Value for equality of proportions	0.00	0.12		

Panel B: Frequency of Corporate Bailouts Within 1 and 2 Years of IMF/WB Loans vs. Corporate Bailouts Outside This Period			
	Within 12 Months After an IMF/WB Loan	Between 13 and 24 Months After an IMF/WB Loan	Bailouts Before the IMF/WB Loan or More than 24 Months After
No. of bailed-out connected firms	24	3	10
% of bailed-out connected firms	64.86	8.11	27.03
No. of bailed-out matching firms	10	1	2
% of bailed-out matching firms	76.92	7.69	15.38

bailed out than are their nonconnected peers (21.1% vs. 7.4%, *p*-value = 0.00).

Panel B documents the distribution over time of corporate bailouts relative to the occurrence of an IMF/WB loan. The vast majority (72.97%) of connected-firm bailouts occur within 2 years following an IMF/WB loan, with 64.86% of bailouts taking place within 12 months, and an additional 8.11% of bailouts taking place between 13 and 24 months afterward. A similar pattern shows up for nonconnected firms: 76.92% of nonconnected-firm bailouts occur in the year following an IMF/WB loan and 7.69% of bailouts occur between 13 and 24 months afterward. Again, if our matching procedure were perfect, we could conclude that politically connected firms are disproportionately favored when a country receives IMF or WB assistance. Because our matching procedure is not perfect, in Section III, we investigate the effect of IMF/WB aid using a multivariate analysis.

III. Multivariate Analysis of the Determinants of Corporate Bailouts

In this section, we undertake a multivariate analysis. We estimate cross-sectional logit regressions to determine whether political connections are significant in explaining the likelihood of corporate bailouts. In each regression, the dependent variable is an indicator equal to one if a company is bailed out any time over the interval 1997–2002, and equal to zero otherwise. To adjust for both heteroskedasticity in the error term and clustering of observations at the country level, we adjust the standard errors from the regression using the procedure described in Wooldridge (2002, pp. 405–410).

A. Independent Variables

We include independent variables to control for other factors that may influence corporate bailouts. For some of the independent variables, we do not have data for each of the connected firms and/or for their matching peers. Below, we describe the independent variables, indicate the motivation for including them in the regressions, and give the number of firms for which the requisite data are available.

Large firms are likely to play a greater role in a country's economic performance and may be more likely to receive political attention when confronted with financial distress. To capture firm size, we use log($mkcapUS$\$$), the log of the company's equity market capitalization as of December 31, 1996, measured in thousands of US$. We obtain this variable from Worldscope, and it is available for every firm in our sample.

Because politicians may perceive bailouts as a means to "buy" votes, companies with more employees may be more likely to receive bailouts. We use log($employees$) to control for the number of a company's employees, where number of employees comes from Worldscope, the *Asian Company Handbook*, and Mergent, based on the company's financial report that occurs closest to calendar year-end 1996. We have data on this variable for 780 of the firms in the sample.

Because of a higher probability of default, firms operating in more risky industries may be more likely to receive a government bailout. To control for differences in business risk, we use SD, the standard deviation of the company's monthly stock returns over the period 1994–1996 as described in Section I.C. Data are available on this variable for 806 firms.

Firms that are suffering financial distress as at the start of the period of analysis may be more likely to be bailed out during the period. To control for differences in firms' financial standings as at the start of our period of analysis, we include three measures of financial condition. The first is *Collateral*, calculated as the ratio of property, plant, and equipment to total assets. The second and third measures are *ROA* and *Leverage*, which are defined in Section I.C. All financial variables come from company financial reports that occur closest to calendar year-end 1996, as reported in Worldscope. We have data measuring *Collateral* for 891 firms; *ROA* for 868 firms; and *Leverage* for 814 firms.

In some countries, the government owns a stake in a publicly traded firm, and thus it may have a vested interest in the firm's survival. Likewise, in some countries, politicians may have an interest in the continued survival of recently privatized firms. For this reason, such firms may be more likely to receive preferential treatment. To control for this possibility, we employ two variables, namely, *GovStake*, the percentage voting shares held by a firm's home country national and local governments, and *Privatized*, an indicator variable equal to one if the company is privatized prior to 1997. We use sources listed in Panel C of Appendix A, Extel, Worldscope, Claessens et al. (2000), Faccio and Lang (2002), and the year 2000 "Fortune 500 Global List" to identify government share ownership as of 1997. We identify privatized from SDC Platinum; Bortolotti, Fantini, and Siniscalco (2001), Dewenter and Malatesta (1997), and Megginson, Nash, and Van Randenborgh (1994). In total, we identify 31 firms as having been privatized prior to the beginning of 1997. Of these, according to our definition, 20 are politically connected.

To control for differences in perceived corruption across countries, we include *Corruption,* which is a country-level index developed by Kaufmann et al. (2003). This variable is defined as the exercise of public power for private gains, and measures various aspects of corruption, ranging from the frequency of "additional payments to get things done" to the effects of corruption on the business environment during 1997 and 1998. The original index is scaled from -2.5 to 2.5, with higher scores corresponding to lower corruption. For our purposes, we rescale the index from 0 to 10, by adding 5 after multiplying the index by -2. Higher scores now indicate higher corruption. This measure of corruption is available for all firms in the sample. To control for differences in economic development across countries, we include log(*GDP per capita*), which we take from the WB web site as of 1996 for all countries except Taiwan; we obtain Taiwan's GDP from the 1997 *World Fact Book of the United States Central Intelligence Agency*.

B. Empirical Results: Bailouts and Political Connections

To test whether political connections increase the likelihood of a corporate bailout after controlling for the factors listed above, we estimate logit regressions, where the dependent variable is an indicator equal to one if a company is bailed out and zero otherwise. In our first regression, we include each of the connected and nonconnected firms in the sample, in which case the sample size is 900. Because we do not have data for each of the independent variables for every firm, in the first regression, an independent variable is included only if it is available for every firm. Thus, the independent variables in our first regression are log(*mkcapUS$*), *GovStake*, *Privatized*, *Corruption*, and log(*GDP per capita*), along with an indicator variable, *Connected*, that is equal to one if a firm has been identified as being politically connected as at the beginning of 1997, and zero otherwise.

The results of the first regression are given in the first column of Table V. The coefficients of log(*mkcapUS$*) and *privatized* are both positive and statistically

Table V

Determinants of Corporate Bailouts

Results of logit regressions used to predict firm bailouts. Dependent variable is an indicator equal to one if a company was bailed out during 1997–2002, and zero otherwise. *Connected* is an indicator equal to one if a company has a shareholder with greater than 10% ownership or a top executive who was a head of state, government minister, or member of parliament as of the beginning of 1997, or if the company had an indirect connection with a politician or political party as of the beginning of 1997, and zero otherwise. log(*mkcapUS\$*) is the log of the company's market capitalization calculated as the number of shares outstanding times the price per share at year-end 1996 (in thousands of U.S. dollars). log(*employees*) is the log of the number of company employees based on the company's financial report that occurred closest to year-end 1996. *Collateral* is the ratio of property, plant, and equipment to total assets from the company's financial report closest to year-end 1996. *ROA* is annual earnings before interest and taxes divided by year-end total assets times 100 from the company's financial report closest to year-end 1996. *Leverage* is short-term debt plus the current portion of long-term debt plus long-term debt divided by total assets times 100 from the company's financial report closest to year-end 1996. *SD* is the standard deviation of monthly stock returns calculated with 36 monthly returns prior to year-end 1996, if available, but no less than 12 monthly returns. *GovStake* is the percentage of voting shares held by a firm's home country national and local governments as of 1997. *Privatized* is an indicator equal to one if the company was privatized prior to 1997 and zero otherwise. *Corruption* is the 1997 and 1998 measure of perceived corruption from Kaufmann et al. (2003). The original index is scaled from −2.5 to 2.5. For our purposes, we rescale the index from 0 to 10 with higher scores representing higher corruption. *GDP per capita* is in constant 1995 international dollars, and refers to 1996. *IMF/WB aid* is an indicator equal to one if the firm's home country obtained an Extended Fund Facility loan or a Standby Arrangement loan from the IMF, or a loan from the WB during 1996–2002. *p*-Values, adjusted for heteroskedasticity and clustering at the country level, are reported in parentheses below the coefficients.

Variable	(1)	(2)	(3)	(4)	(5)	(6)
Connected	0.805	0.674	0.761	0.764	0.622	0.727
	(0.001)	(0.008)	(0.007)	(0.002)	(0.013)	(0.014)
log(*mkcapUS\$*)	0.821	0.922	0.824	0.849	0.958	0.753
	(0.002)	(0.014)	(0.125)	(0.002)	(0.017)	(0.157)
log(*employees*)			0.177			0.236
			(0.219)			(0.150)
Collateral		−0.025	−0.031		−0.026	−0.032
		(0.013)	(0.011)		(0.010)	(0.007)
ROA		−0.061	−0.079		−0.061	−0.081
		(0.000)	(0.001)		(0.000)	(0.000)
Leverage		0.027	0.021		0.026	0.021
		(0.050)	(0.105)		(0.067)	(0.104)
GovStake	2.582	2.491	1.489	2.417	2.225	1.325
	(0.182)	(0.201)	(0.440)	(0.203)	(0.235)	(0.467)

Privatized	1.682	2.497	3.321	1.724	2.578	3.384
	(0.010)	(0.001)	(0.000)	(0.014)	(0.001)	(0.000)
SD			8.430			8.118
			(0.001)			(0.002)
Corruption	0.153	−0.112	0.106	0.107	−0.164	0.065
	(0.489)	(0.636)	(0.677)	(0.530)	(0.411)	(0.804)
log(*GDP per capita*)	−2.184	−3.362	−2.713	−0.791	−1.712	−1.487
	(0.050)	(0.009)	(0.023)	(0.451)	(0.187)	(0.327)
IMF/WB aid				1.295	1.520	1.149
				(0.001)	(0.001)	(0.105)
Intercept	0.354	5.566	0.807	−5.928	−1.827	−4.544
	(0.943)	(0.315)	(0.894)	(0.245)	(0.766)	(0.577)
No. of observations	900	803	636	900	803	636
Bailouts of connected firms	51	43	35	51	43	35
Bailouts of nonconnected firms	20	17	16	20	17	16
Wald χ^2	469.69	854.70	861.01	605.40	1,076.82	604.52
Prob $> \chi^2$	0.00	0.00	0.00	0.00	0.00	0.00

significant. Apparently, larger firms and privatized firms are more likely to be bailed out. Additionally, the privatized indicator appears to be more important than whether the state owns a major stake in the firm, as *GovStake* is not significant in this regression or any others, whereas *Privatized* is significant in this and in each of our subsequent regressions. The coefficient of log(*GDP per capita*) is negative and significant, indicating that firms are more likely to be bailed out in poorer countries. However, this variable loses significance later when we introduce an indicator for whether the IMF/WB provided an aid package to the country in question. The variable *Corruption* is not significant in this regression and does not become significant in any later regressions. Thus, after controlling for other factors, the level of corruption is not statistically significant in our estimates of the likelihood of a bailout.

Of course, for our purposes, the most important variable is *Connected*. *Connected* is highly significant (*p*-value < 0.01); thus, political connections apparently increase the likelihood of a government bailout of a troubled firm. As we shall see, the inclusion of additional control variables in later regressions does not diminish the empirical importance of *Connected* as an explanatory variable of whether a company is bailed out.

The second regression in Table V includes all independent variables described above except log(*employees*) and *SD*. This sample has 803 observations, of which 43 are connected company bailouts and 17 are nonconnected company bailouts. The new variables included are *Collateral*, *ROA*, and *Leverage*. These variables measure the financial position of the companies at the beginning of the sample period. Each of these variables is statistically significant (all *p*-values ≤ 0.05). This result may not be surprising as companies that are financially weaker at the start of the period are more likely to be bailed out during our observation period.[11] Additionally, the variables that are significant in the first regression continue to be significant in the second. Nevertheless, politically connected firms are still significantly more likely to be bailed out than are their nonconnected peers. To the extent that lenders factor political connections into their credit-granting decisions, the potential for future bailouts may explain the higher use of leverage by politically connected firms.

The third regression includes all of the independent variables described above, including log(*employees*) and *SD*. This regression has 636 observations, of which 35 are politically connected bailouts and 16 are nonconnected bailouts. As before, *Collateral*, *ROA*, *Leverage*, *Privatized*, and log(*GDP per capita*) are statistically significant, while *GovStake* and *Corruption* are not. The coefficient of *SD* is positive and significant, suggesting that companies subject to greater

---

[11] A related question is whether connected firms are bailed out more frequently because they become distressed more often or, rather, whether a larger fraction of connected firms is rescued. To investigate this issue, we examine the evolution of company ROAs over our full sample of connected and nonconnected firms across the 1997–2002 sample period. In unreported tests we find that, for 4 out of 6 years, the mean ROA of connected companies is not statistically different from the mean ROA of their nonconnected peers. In one year, connected firms perform significantly worse, while in another year, they perform significantly better. Thus, we do not have more bailouts of connected firms, because they end up in distress more often. Rather, we have more bailouts because, given a similar frequency of distress, more of them are rescued.

"risk" are more likely to be bailed out. Both log(*mkcapUS$*) and log(*employees*) have positive signs, but neither enters the regression as statistically significant (*p*-values = 0.12 and 0.22). This outcome is apparently due to the high correlation between the two variables. When we omit log(*mkcapUS$*), log(*employees*) becomes statistically significant. Our results on this point are consistent with either of two arguments; namely, that "the importance to the economy" or "vote buying" plays a role in determining which companies are likely to be bailed out (Dinç (2005), La Porta, Lopez-de-Silanes, and Shleifer (2002), Sapienza (2004), Shleifer and Vishny (1998)).

Most interestingly for our analysis, the coefficient of political connections continues to be positive and statistically significant (*p*-value < 0.01). Thus, after including various firm-specific and country-level variables, politically connected firms are more likely to be bailed out than are their nonconnected peers. The conclusion is that, at least in some countries, political connections influence the allocation of capital through implicit government guarantees of a bailout when politically connected companies become financially distressed.

C. Empirical Results: IMF/WB Assistance, Corporate Bailouts, and Political Connections

We now address the questions of whether IMF or WB aid packages increase the likelihood of corporate bailouts and, if so, whether the funds flow disproportionately to politically connected firms. To address these questions, we include an indicator variable, *IMF/WB aid*, for each country that receives an IMF/WB aid package and we reestimate the first three regressions of Table V. Columns 4, 5, and 6 summarize the results. Again, the first regression includes all firms in the sample, and the sample grows smaller as we include more control variables.

In regressions (4) and (5), the coefficient of *IMF/WB aid* is positive and statistically significant, with a *p*-value <0.01. In the sixth regression, the coefficient is positive with a *p*-value of 0.10. Of course, this regression has the smallest number of bailouts, totaling 51, of which 35 are connected firms and 16 are not. With the exception of log(*GDP per capita*), each of the other variables has the same sign and the same approximate *p*-value as in the corresponding regressions in columns 1 through 3. These results indicate that all firms in a country, both connected and nonconnected, are more likely to be bailed out when the IMF or WB provides assistance to that country.

An interesting related question is whether politically connected firms are disproportionately more likely to benefit relative to nonconnected firms when the IMF or WB provides loans to their home countries. The univariate tests in Panel A of Table IV suggest that, before controlling for firm- and country-specific attributes, such is the case. We now assess the robustness of this result using a multivariate framework. If connected firms benefit disproportionately more when IMF/WB loans are provided, the fraction of bailouts among connected firms should rise disproportionately relative to that of nonconnected firms when a firm's home government receives IMF or WB aid. Note that we

cannot infer this effect by simply looking at the signs of the coefficients of the connections or IMF/WB aid indicators (or a combination of these variables), since we are using a nonlinear logit regression technique. Thus, to examine this issue, we must compute the expected probability of a bailout for each of our four non-overlapping subgroups that capture the presence of political connections and IMF/WB loans. The subgroups are identified by indicator variables, which take the value of zero or one.

The first indicator, *IMF/WB aid × Connected*, is set to one for the subset of connected firms that are incorporated in countries that receive IMF or WB loans. The second indicator, $(1 - IMF/WB\,aid) \times Connected$, is set to one for the subset of connected firms that are incorporated in countries that do not receive IMF or WB assistance. The third indicator, *IMF/WB aid × (1 − Connected)*, is set to one for the subset of nonconnected firms that are incorporated in countries that receive IMF or WB aid. The fourth indicator, $(1 - IMF/WB\,aid) \times (1 - Connected)$, is set to one for the subset of nonconnected firms that are incorporated in countries that do not receive IMF or WB loans. Inserting the above four orthogonal indicators into our prior logit specification, we estimate the following model:

$$
\begin{aligned}
\text{prob}(Bailout) = f\,[\,&\beta_1 \times (IMF/WB\,aid \,\times\, Connected) \\
&+ \beta_2 \times ((1 - IMF/WB\,aid) \times Connected) \\
&+ \beta_3 \times (IMF/WB\,aid \times (1 - Connected)) \\
&+ \beta_4 \times ((1 - IMF/WB\,aid) \times (1 - Connected)) \\
&+ \beta_5 \times \log(mkcapUS\$) + \beta_6 \times Collateral + \beta_7 \times ROA \\
&+ \beta_8 \times Leverage + \beta_9 \times GovStake + \beta_{10} \times Privatized \\
&+ \beta_{11} \times Corruption + \beta_{12} \times \log(GDP\,per\,capita)\,].
\end{aligned}
\tag{1}
$$

Our null hypothesis is that the difference between the likelihoods of bailouts of connected and nonconnected firms, absent IMF or WB aid, is equal to the difference between these likelihoods when IMF or WB aid is granted. The test statistic for the null hypothesis can be written in terms of the logit likelihood function as

$$
\left[\frac{\exp\left(\beta_1 + \sum_{i=5}^{12} \beta_i x_i\right)}{1 + \exp\left(\beta_1 + \sum_{i=5}^{12} \beta_i x_i\right)} - \frac{\exp\left(\beta_2 + \sum_{i=5}^{12} \beta_i x_i\right)}{1 + \exp\left(\beta_2 + \sum_{i=5}^{12} \beta_i x_i\right)} \right]
$$
$$
- \left[\frac{\exp\left(\beta_3 + \sum_{i=5}^{12} \beta_i x_i\right)}{1 + \exp\left(\beta_3 + \sum_{i=5}^{12} \beta_i x_i\right)} - \frac{\exp\left(\beta_4 + \sum_{i=5}^{12} \beta_i x_i\right)}{1 + \exp\left(\beta_4 + \sum_{i=5}^{12} \beta_i x_i\right)} \right].
\tag{2}
$$

The null hypothesis is that the difference of the differences in the probabilities of a bailout is zero. This can be tested using a Wald test, which is appropriate for testing nonlinear restrictions on the coefficients of the model. To perform this test, we set the other control variables $x_5, \ldots, x_{12}$ to their sample averages.[12] After controlling for firm- and country-specific factors, we find an economically and statistically significant increase in the difference between the likelihoods that connected and nonconnected firms are bailed out when the firms' home governments receive IMF or WB loans.

In the absence of IMF or WB aid, our model predicts that 4.92% of connected and 2.23% of nonconnected firms will be bailed out. Thus, after controlling for a variety of firm- and country-specific factors, the incremental likelihood of a bailout for a connected firm is 2.69% (i.e., 4.92 − 2.23%). In the presence of IMF or WB aid, our model predicts that 18.79% of connected firms and 9.17% of their nonconnected peers will be bailed out. Thus, after controlling for firm- and country-specific factors, in countries that receive IMF or WB aid, the incremental likelihood of a bailout for a connected firm is 9.62% (i.e., 18.79 − 9.17%). Thus, receipt of an IMF/WB loan by a country increases the net likelihood of a bailout for a connected firm relative to a nonconnected firm by 6.93% (i.e., 9.62 − 2.69%). Using a Wald test, this difference is statistically significant ($\chi^2 = 10.96$, p-value < 0.01). The incremental likelihood of a bailout for a connected firm relative to a nonconnected firm, estimated using multivariate analysis, is 6.93%, compared to an incremental likelihood of 11.1%, estimated using univariate analysis. The implication is that some part of the disproportionality that we document in Table IV is due to firm- or country-specific factors. Nevertheless, the data indicate that granting an IMF or WB loan to a country increases the likelihood of bailouts of politically connected firms.

IV. Corporate Bailouts and Economic Efficiency

A. Overview

In this section, we examine the operating performance and leverage of bailed-out firms before and after their bailout dates. This analysis bears upon the question of economic efficiency. That is, bailouts transfer capital to firms that the capital market is apparently unwilling to serve. Assuming that the capital market allocates funds to their highest value uses, then, by definition, bailouts are an inefficient use of capital. In considering the efficiency of bailouts, we ask whether bailouts of politically connected firms are even less efficient than bailouts of nonconnected firms. In this regard, we examine the relative efficiency of corporate bailouts.

To address this question, we examine the operating performance and leverage of bailed-out firms prior to and after their bailouts and we ask whether the

---

[12] Greene (2003, p. 668) suggests using averages and/or other relevant data points. Thus, to assess the robustness of our result, we recalculate the Wald statistic with the control variables at their sample medians. In this robustness test, the Wald statistic continues to be highly significant ($\chi^2 = 8.87$, p-value < 0.01).

performance and leverage of bailed-out politically connected firms are different from those of bailed-out nonconnected firms. For this comparison, we rely on the associated nonconnected or connected peer firm.

B. Pre- and Post-bailout Operating Performance

To study the operating performance of politically connected firms that are bailed out and their nonconnected matching firms, we calculate ROAs for each of the 5 years surrounding the bailouts (event years -2 through $+2$). By subtracting the ROA of its matching peer from the ROA of the bailed-out firm, we obtain an industry-adjusted ROA. For 19 of the bailed-out connected firms and for 1 of the bailed-out nonconnected firms, we do not have the requisite 5 years of ROA data for their matching peer. To minimize the loss of sample observations, for these firms we use the median ROA of all firms from the same industry and the same country as the bailed-out firm. In particular, using Campbell's industry classification, we identify all firms in the connected firm's home country with the same industry classification on the Worldscope database for each event year -2 through $+2$. For each firm, we calculate ROA as described in Section I.C. Our matching-industry median is the median of the individual firm ROAs from the same industry in the firm's home country. For bailed-out nonconnected firms, we also calculate ROAs. For these companies, we also calculate the ROA of their matching politically connected firm (as before, if the data for the peer are not available, we use the home country/industry median). Arguably, we should identify a nonconnected peer for each of the nonconnected bailouts so as to exclude any "connected-firm" effect in the ROA figures. We do not do so, but we do not expect this omission to bias our tests. With this caveat in mind, we calculate the mean and median ROA across the 5 event years for each of the four sets of firms. Note that event year 0 is defined as the bailout year. Panel A of Table VI presents the results. Notice that because a firm can be bailed out more than once during our period of analysis, the number of bailouts in Table VI exceeds the number of bailed-out companies as reported in the earlier tables. For companies that received multiple bailouts, we include the first bailout. If a second bailout occurs more than 3 calendar years after the first bailout, we include that as well. This procedure results in the inclusion of four firms with two bailouts each. Because our accounting data end in 2003 for most companies, and 10 of the bailouts in this analysis occur in 2002, the number of observations declines in year $+2$.

Not surprisingly, bailed-out firms, both those that are politically connected and those that are not, underperform their non-bailed-out matching firms prior to and immediately after their bailouts, as industry-adjusted mean and median ROAs (rows 3 and 8) are negative in each of the years -2 through $+1$. In year $+2$, the performance of politically connected firms continues to be poor, with an industry-adjusted mean ROA of -6.19% and a median of -3.84%. In comparison, the performance of nonconnected bailed-out firms improves, and, in year $+2$, these firms experience mean and median industry-adjusted ROAs of $+0.43\%$ and $+0.74\%$, respectively.

Table VI

Operating Performance and Financial Leverage of Bailed-Out Connected and Nonconnected Firms and Their Matching Peers

This table gives mean and median *ROA*s and financial leverage ratios for bailed-out firms and their matching peers. *ROA* is calculated as annual earnings before interest and taxes divided by year-end total assets times 100. *Leverage* is calculated as short-term debt plus the current portion of long-term debt plus long-term debt divided by total assets times 100. Year 0 is the year of announcement of a company bailout. Year −2, Year −1, Year +1, and Year +2 are 2 years before, 1 year before, 1 year after, and 2 years after the bailout announcement, respectively. Difference represents the industry- and peer-adjusted *ROA/Leverage*. Whenever the *ROA* or *Leverage* is not available for a peer, we replace the missing value with the median for the firm's (Campbell) industry in the firm's country. The number below the means is the *p*-value of a matched pairs *t*-test for difference in means between bailed-out and matching companies. The number below the medians is the *p*-value for the difference from zero, based on the Wilcoxon matched pairs test. The number in parentheses below the industry- and peer-adjusted *ROA/Leverage* is the number of matching pairs. The *p*-values for difference in means (medians) between industry- and peer-adjusted *ROA/Leverage* of bailed-out connected firms and industry- and peer-adjusted *ROA/Leverage* of bailed-out nonconnected firms (last row in each panel) are based on *t*-tests for independent samples (Mann-Whitney U tests). For companies that receive multiple bailouts, we always include the first bailout in our sample period. Subsequent bailouts are included only if they took place at least 3 calendar years after the first bailout.

Panel A: *ROA*

Sample	Mean *ROA*					Median *ROA*				
	Year −2	Year −1	Year 0	Year +1	Year +2	Year −2	Year −1	Year 0	Year +1	Year +2
Bailed-out connected firms (A)	2.09	1.47	−2.88	−5.33	−3.41	2.32	2.24	−0.61	−2.19	−1.32
Nonconnected peers (B)	4.41	3.95	3.61	2.72	2.78	3.86	4.48	3.83	3.04	2.52
Difference (A) − (B)	−2.33	−2.47	−6.49	−8.05	−6.19	−1.54	−2.24	−4.44	−5.23	−3.84
p-Value difference	0.03	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(no. of pairs)	(49)	(51)	(52)	(51)	(45)	(49)	(51)	(52)	(51)	(45)
Bailed-out nonconnected firms (C)	2.46	2.31	−0.84	−1.69	0.29	1.67	2.03	0.04	−1.18	0.87
Connected peers (D)	4.29	3.44	1.10	0.36	−0.15	2.33	2.10	0.74	0.77	0.13
Difference (C) − (D)	−1.83	−1.03	−1.94	−2.05	0.43	−0.66	−0.07	−0.70	−1.95	0.74
p-Value difference	0.19	0.53	0.29	0.38	0.87	0.47	0.65	0.41	0.53	0.61
(no. of pairs)	(16)	(17)	(17)	(16)	(15)	(16)	(17)	(17)	(16)	(15)
Difference [(A) − (B)] − [(C) − (D)]	−0.50	−1.44	−4.55	−6.00	−6.62	−0.88	−2.17	−3.74	−3.28	−4.58
p-Value difference	0.80	0.51	0.04	0.17	0.02	0.21	0.16	0.02	0.09	0.01

(*continued*)

Table VI—*Continued*

Panel B: Leverage

	Mean Leverage					Median Leverage				
	Year −2	Year −1	Year 0	Year +1	Year +2	Year −2	Year −1	Year 0	Year +1	Year +2
Bailed-out connected firms (A)	38.3	43.5	45.9	51.5	52.1	36.2	44.9	46.7	53.6	60.8
Nonconnected peers (B)	26.7	28.7	25.7	25.2	26.6	26.1	28.7	24.7	23.4	23.5
Difference (A) − (B)	11.6	14.8	20.2	26.3	25.5	10.1	16.2	22.0	30.2	37.3
p-Value difference	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(no. of pairs)	(50)	(51)	(51)	(49)	(43)	(50)	(51)	(51)	(49)	(43)
Bailed-out nonconnected firms (C)	31.1	29.3	29.7	29.3	26.2	25.3	29.1	26.6	25.4	21.1
Connected peers (D)	20.9	25.1	25.1	23.0	24.2	16.1	16.5	22.2	16.5	16.8
Difference (C) − (D)	10.2	4.2	4.6	6.3	2.0	9.2	12.6	4.4	8.9	4.3
p-Value difference	0.22	0.63	0.62	0.47	0.84	0.21	0.71	0.40	0.31	0.65
(no. of pairs)	(17)	(18)	(18)	(17)	(17)	(17)	(18)	(18)	(17)	(17)
Difference [(A) − (B)] − [(C) − (D)]	1.4	10.6	15.7	19.9	23.5	0.9	3.6	17.7	21.3	32.9
p-Value difference	0.86	0.22	0.09	0.05	0.04	0.71	0.21	0.13	0.06	0.06

The statistic of greatest interest to us is the difference in industry-adjusted performance between bailouts of connected and nonconnected firms. These differences are reported in row 11, with their *p*-values in row 12. In the 2 years prior to their bailouts, politically connected bailouts have slightly worse performance than the nonconnected bailouts, when measured on an industry-adjusted basis. However, the performance advantage of nonconnected bailed-out firms becomes economically large and highly statistically significant in year 0 and continues to be large and statistically significant over the following 2 years. As we note above, nonconnected bailed-out firms actually experience above-"normal" performance by year +2.

These data suggest that funds directed to bail out politically connected firms do not lead to a resurgence in the economic performance of these companies. Assuming that bailouts, in general, represent an inefficient use of capital, bailouts of politically connected firms are especially wasteful.

C. Pre- and Post-bailout Leverage

Panel B of Table VI parallels Panel A except that the variable of interest is financial leverage as defined above. By examining leverage ratios, we can evaluate whether lenders have less restrictive lending standards for politically connected firms. In each event year, whether considering means or medians, bailed-out politically connected firms have significantly higher leverage ratios than their nonconnected matching peers. For example, in year −1, the bailed-out connected firms' mean leverage ratio is 43.5% versus 28.7% for their nonconnected peers. This spread in leverage ratios of 14.8% also shows up in the medians. Additionally, the spread between connected and nonconnected firms' leverage (row 3) grows larger as we move through event time from year −2 to year +2. The mean leverage ratio for bailed-out connected firms increases from 38.3% in year −2 to 52.1% in year +2 and the spread between the higher leverage ratios of bailed-out connected firms and their nonconnected peers grows from 11.6% in year −2 to 25.5% in year +2. In short, connected firms end up even more highly levered after their bailouts than before.

The leverage ratios of bailed-out nonconnected firms contrast with those of non-bailed-out connected firms. First, not surprisingly, bailed-out nonconnected firms have higher leverage ratios than their non-bailed-out connected peers (row 7). This is not surprising, because these firms are presumably bailed out owing to financial distress. Presumably, higher leverage plays a role in a firm's request for government assistance. However, the yearly differences in mean and median leverage ratios between bailed-out nonconnected firms and their non-bailed-out connected peers (row 9) are never statistically significant and are modest, hovering around 2% to 10%, with *p*-values (shown in row 10) ranging from 0.22 to 0.84. Moreover, in contrast to bailed-out connected firms, the leverage ratios of bailed-out nonconnected firms, measured with either means or medians, decline in the years following their bailouts.

Again, the key statistic in our analysis is the difference in the industry-adjusted leverage of bailed-out politically connected firms in comparison to

that of bailed-out nonconnected firms. The differences are large, with means ranging from 1.4% to 23.5%, and statistically significant in years 0 through year +2, with p-values ranging from 0.04 to 0.09.

These results suggest that lenders impose relatively weaker credit standards on loans to companies that are directly or indirectly connected to politicians. One possible explanation for different loan standards is that lenders are relatively confident that the government will intervene to rescue connected companies when financial difficulties arise. The lenders' apparently greater willingness to extend loans to connected firms after bailouts is consistent with the bailout acting as further proof of the strength of a political connection. Thus, our evidence is consistent with lenders imposing less demanding origination standards on politically connected firms, both before and after a bailout.

V. Robustness Tests

In this section, we consider variations of the tests we conduct in Section III. This analysis is aimed at determining the sensitivity of our results to the exclusion or inclusion of certain variables and to alternative specifications of our tests. In particular, we replicate regressions (4) and (5) of Table V, where regression (4) includes all of the bailouts, but only some of the independent variables, and regression (5) includes most of the bailouts and most of the independent variables. The two variables of greatest interest to us are *Connected* and *IMF/WB aid*. In most cases, the p-values for these variables are less than 0.05, and in all cases, the p-values are less than 0.10.

A. Exclusion of Malaysia

As we note above, a disproportionate number of the bailouts in our sample occur in Malaysia. A concern that immediately arises is that our results may be due primarily or completely to bailouts in this country. However, when we omit observations from Malaysia and reestimate regressions (4) and (5), the p-values of the coefficients of *Connected* are 0.01 and 0.09, respectively, and the p-values of the coefficients of *IMF/WB aid* are both less than 0.01. Thus, our results are not due only to Malaysia.

B. Matching Procedure

For 81 of the politically connected firms, we select a matching peer from a different country. These correspond to 19 bailouts. To assess whether our results are due to having a poor match for these firms, we omit these 81 observations and reestimate the regressions. In both regressions (4) and (5), the coefficient of *Connected* continues to be significant with p-values less than 0.01. The coefficient estimates for *IMF/WB aid* have p-values of 0.07 and less than 0.01, respectively. Thus, our results are not due to those cases in which we use our "third-best" matching criteria to find a peer company.

C. Direct versus Indirect Political Connections

As we note in Table II, bailouts occur disproportionately among firms connected by means of indirect connections. Because identification of connections through indirect connections involves a certain level of subjectivity, we replace *Connected* with two indicators, one for direct connections and the other for indirect connections, and reestimate the regressions. In regression (4), both the direct and the indirect connection indicators have *p*-values less than 0.01, as does the *IMF/WB aid* indicator. In regression (5), the *p*-values of the two connection indicators and the IMF/WB indicator are 0.04, 0.06, and 0.01, respectively. In sum, both direct and indirect connections appear to be important determinants of which firms are bailed out. Moreover, we conclude that our results are not due to a subjective identification of politically connected firms.

D. Alternative Definitions of Bailouts

Our identification of capital infusions is based upon our search of newswire services. These searches identify cases in which a government provides capital in various forms, including purchases of equity. We expand our sources of equity infusions through a search of Thomson Financial Securities Data SDC, Worldwide Mergers & Acquisitions Database. This database identifies purchasers of equity blocks, but it does not indicate whether the shares are purchased directly from the company or in the secondary market. For instances where this database identifies a transaction in which a company's home country government purchases at least 5% of the company's shares over the period 1996–2002, we add this company to our sample of bailouts. There are 31 such instances, giving us a sample of 102 bailouts, 69 of which involve connected firms, and 33 of which involve nonconnected firms. Additionally, we are unable to determine whether the company is distressed, because we find no newswire story around the time of the share purchase indicating that the company is having financial difficulty. With these bailouts included, we reestimate regressions (4) and (5). The *p*-values of the coefficients of *Connected* are less than 0.01 and 0.09, respectively. The *p*-values for the coefficients of IMF/WB aid are 0.01 and less than 0.01.

As another way to construct our sample of bailouts, we add to our original sample seven cases in which the press reports the terms "injection," "restructure*," and "aid," but we could not determine from the press reports whether the company is in financial distress. This leads to a sample of 78 bailouts, of which 55 involve connected firms and 23 involve nonconnected firms. We reestimate the regressions. The *p*-values of the coefficients of *Connected* are less than 0.01 and 0.02, respectively. The *p*-values for the coefficients of *IMF/WB aid* are both less than 0.01.

In a third set of regressions, we include the equity purchases by the home government that the *SDC* database identifies along with the infusions in which we cannot determine whether the firm is distressed, giving us a sample of 73 connected bailouts and 36 nonconnected bailouts, and we reestimate the

regressions. The *p*-values of the coefficients of *Connected* are less than 0.01 and 0.07, respectively. The *p*-values for the coefficients of *IMF/WB aid* are both less than 0.01 and 0.02, respectively.

In sum, our conservative procedure for identifying bailouts—requiring us to be certain that a firm receives a direct capital infusion and that it is in financial distress—does not give rise to our results. The results are robust to these broader definitions of bailouts.

E. Non-bank Bailouts

In some cases, banks could be more likely to be bailed out than non-bank firms, due to concerns about the potentially broader economic impact of a large bank's insolvency. If so, bank bailouts may be influenced by factors different from those that influence bailouts of non-bank firms. To assess whether our results are in some way due to our mixing of bank bailouts with other bailouts, we exclude banks and reestimate the regressions. The relationship between political connections and bailouts is strengthened after excluding banks. In both regressions (4) and (5), the coefficient of *Connected* becomes more positive and more highly significant. The coefficients of *IMF/WB aid* continue to be significant with *p*-values less than 0.01.

F. Does the Prospect of an Immediate Bailout "Cause" Political Connections?

A further concern that might arise is whether the political connections we observe for bailed-out firms come about because the firm is in need of an immediate bailout. That is, we may be observing "marriages of convenience" in which a major shareholder or corporate officer of a struggling firm establishes a political connection for the specific purpose of seeking a government-assisted bailout. If that were the case, then arguably, it is the bailout that "causes" the political connection rather than the other way around. One way to address this possibility is to examine whether long-standing connections are just as likely to lead to a bailout as those that have been established just prior to the bailout.

We use Lexis-Nexis, Reuters, *The Financial Times*, and *The Economist* to identify the date in which each political connection in our sample is first established. With these data, we conduct two tests. First, we split connections into three sets: those that are established before December 31, 1987 ("long-term connections"), those that are established after December 31, 1987 ("short-term connections"), and those for which we cannot establish an initiation date ("indeterminate"). We then reestimate regressions (4) and (5) after replacing *Connected* with three new indicators identifying short-term, long-term, and indeterminate connections. In regression (4), both the long-term and the short-term connection indicators are positive and significantly greater than zero (*p*-values <0.01). More importantly, for the purpose of this subsection, the coefficients of short-term and long-term connections are not significantly different from each other (*p*-value = 0.68). The results are similar in regression (5) except

that the significance levels (for the difference from zero) of the two variables are slightly higher at 0.02 and 0.01, respectively, and the two coefficients are not significantly different from each other (p-value = 0.96).

In our second test, we omit the six firms that are bailed out in 1997 along with their peers and reestimate the regressions.[13] The coefficients of *Connected* in the two regressions are significantly greater than zero (p-values less than 0.02 and 0.05), and the coefficients of *IMF/WB aid* continue to be significant with p-values less than 0.01.

G. Media Bias in Identifying Bailouts

It is possible that our sample embeds a "media bias," because news about bailouts of politically connected firms is more frequently reported than is news about nonconnected bailouts. Given our search procedure, such a bias could cause us to identify more politically connected bailouts than nonconnected bailouts purely due to reporting rather than to actual events. (Of course, it is easy to envision the opposite bias occurring in countries in which politicians are able to suppress unfavorable press coverage.) We implement two procedures to assess whether such a media bias occurs in our sample. First, recognizing that large firm bailouts are likely to receive media coverage regardless of whether the firms are politically connected, it follows that any media bias is more likely to show up among smaller firms. That is, bailouts of smaller firms may only show up if the firms are politically connected, whereas large firm bailouts will be reported regardless of whether the firm is politically connected. If there is a media bias, we should observe a disproportionate number of bailouts involving connected smaller firms in comparison to their nonconnected peers.

To examine this possibility, we first sort the 450 connected firms into quartiles by equity market capitalization, with quartile one representing the largest firms. We place matching nonconnected firms in the same quartiles as their connected peers. We then identify bailouts and calculate the fraction in each quartile. If this hypothesized media bias is important, then the proportion of bailouts of connected firms relative to nonconnected firms should be higher in quartiles three and four than in quartiles one and two.

Table VII gives the number and fraction of bailouts by quartile along with the median market capitalization of firms. As columns 5 and 9 of Panel A show, higher fractions of connected firms relative to nonconnected firms are bailed out in quartiles one and two, but lower fractions occur in quartiles three and four. Thus, we do not observe a disproportionate number of connected-firm bailouts in the smaller firm quartiles. When we conduct the same analysis using annual sales as the size metric (untabulated), we come to the same conclusion of no evidence of a media bias in the bailout samples.

As a second approach to determining whether our sample is affected by a media bias, we search for information on bailouts in the InterNet Bankruptcy Library, a service produced by Bankruptcy Creditors' Service Inc. and Beard

---

[13] There were seven bailouts of six different firms in 1997.

Table VII
Distribution of Bailouts by Company Size

Politically connected firms are ranked into quartiles by market capitalization at year-end 1996. Market capitalization is calculated as the number of shares outstanding times the price per share (in millions of U.S. dollars). For each connected firm, a match is identified as any company from the same country with the same two-digit SIC code as the connected firm and that was not identified as politically connected. From the set of potential matches, we select the one with equity market capitalization closest to that of the connected firm at year-end 1996, provided its equity market capitalization is within ±40% of the connected firm's market capitalization. If no company satisfies these criteria, the industry classification is broadened to Campbell's (1996) industry classification measure and the procedure is repeated. If no match results for a connected firm, we select the firm with the closest market capitalization to the connected company using Campbell's industry classification, but from any country.

	Connected Firms				Nonconnected Matching Firms			
Quartiles Based on Market Capitalization	No. of Firms	Median Market Capitalization (1996 Millions Dollars)	No. of Bailouts	Bailouts as a Fraction of Total Bailouts	Predicted No. of Bailouts	Median Market Capitalization (1996 Millions Dollars)	No. of Bailouts	Bailouts as a Fraction of Total Bailouts
1 (Largest)	113	4,626.4	18	0.353	7	3,228.0	4	0.200
2	112	815.8	19	0.373	7	690.2	5	0.250
3	113	310.4	12	0.235	5	263.0	10	0.500
4 (Smallest)	112	62.6	2	0.039	1	66.4	1	0.050
Total	450	519.93	51	1.000	20	406.81	20	1.000

Group Inc.[14] This database reports information related to financial distress for publicly traded companies worldwide. The database assembles information from regulatory filings, court pleadings, judicial rulings, and press reports. The database provides the source of each entry. To avoid any media bias, we exclude all mentions of bailouts that are based solely on press reports and rely only on government reports.

Because of the way the data are organized, use of this database is time consuming. Thus, we do not conduct a search for all 900 firms in our sample of connected firms and their peers. Rather, we search among several subsets of firms. In conducting this search, we first conduct a keyword search using the same keywords as described in Section II.A above. We then read each of the entries identified by the search to determine whether the entry cites a funds transfer to the company from its home government.

Since any media bias in favor of reporting bailouts of politically connected firms is more likely to occur among smaller firms, we first search the InterNet Bankruptcy Library for the 50 smallest nonconnected non-bailed-out firms in our sample based on year-end 1996 market capitalization, with a maximum of five firms drawn from any one country. Using the same keywords and selection criteria as before, this search identifies no additional bailouts. Thus, our searches of the InterNet Bankruptcy Library provide no evidence that our sample underreports nonconnected bailouts in small firms.

We also search the InterNet Bankruptcy Library for the entire set of bailed-out firms in our sample and their matches. From this search, we find that government reports mention 38 of the 51 politically connected bailouts and 14 of the 20 nonconnected bailouts that we identify in our original search of Lexis-Nexis and Factiva. Thus, news services report 1.34 (i.e., 51/38) connected-firm bailouts for each one identified from a government source. In comparison, news services report 1.43 (20/14) nonconnected bailouts for each nonconnected bailout identified from a government source. These data support the conclusion that our sample of connected-firm bailouts does not suffer from a media reporting bias. That is, if anything, the press tends to slightly overreport nonconnected-firm bailouts.

VI. Commentary and Conclusions

This paper investigates a particular form of government support for politically connected firms: corporate bailouts. We show that political connections lead to preferential corporate bailouts. While anecdotal claims hint at this possibility, our study evaluates this claim empirically.[15] For a sample of 450 politically connected firms from 35 countries, we document that over the period 1997 through 2002, 11.3% of these firms receive an aid package from their home government. In contrast, only 4.4% of their nonconnected peers

---

[14] http://bankrupt.com/.

[15] *Financial Times,* 2003, Pernas debt revamp causes concern, June 16. A number of additional claims of this sort are reported in Johnson and Mitton (2003).

receive such support. Our results relate to several themes considered in prior studies.

One set of earlier studies reports that political connections influence firm value: The termination of a connection results in a decline in equity value (Roberts (1990), Fisman (2001)), while the establishment of a connection results in an increase in equity value (Faccio (2006)). Presumably, these revaluations occur because political connections bring some form of benefit to these firms and their shareholders. Corporate bailouts may be one channel through which shareholders gain from political connections. Our evidence indicates that politically connected firms borrow more and are bailed out with greater frequency than are nonconnected firms. This pattern is consistent, with connected firms experiencing weaker loan requirements and more favorable interest rates due to the lower expected loan loss that their higher frequency of bailout implies. The implication is that, ex ante, shareholders gain because their firms are able to borrow at below-market rates. Ex post, lenders can also benefit when their borrowers are bailed out. However, if the ex ante interest rates reflect the likelihood of bailouts, then lenders to connected firms are merely receiving a market rate of return equal to that of otherwise similar nonconnected firms.

Second, our evidence also complements recent studies of the behavior of lenders toward politically connected borrowers. For example, Johnson and Mitton (2003) report that politically connected firms in Malaysia have greater access to debt financing, while Khwaja and Mian (2005) find that politically connected firms in Pakistan have greater access to debt financing, and exhibit significantly higher default rates, but pay interest rates no higher than other borrowers; and Cull and Xu (2005) report that Chinese firms that make informal payments to government officials borrow more from banks. Our evidence offers one explanation for the higher leverage and lower interest rates of politically connected firms reported in these various studies.

Third, we examine the operating performance of bailed-out firms. We find that bailed-out connected firms have significantly lower ROAs than their industry peers and lower industry-adjusted ROAs than other bailed-out, but nonconnected, firms in the year of and in the 2 years following their bailouts. Assuming that capital markets channel funds to their highest value uses and that firms receiving bailouts are firms to which other capital market participants are unwilling to provide capital, the implication is that bailouts of connected firms are even more wasteful than bailouts in general. The inefficiencies are two-dimensional. First, bailouts of connected firms are more frequent than bailouts of nonconnected firms, meaning that funds are misallocated more often. Second, bailouts of connected firms represent an even less efficient allocation of capital than bailouts of nonconnected firms, which reinforces the importance of our primary finding.

A further finding of our study is that bailouts in countries that receive IMF or WB loans occur disproportionately among politically connected firms. We find over a recent 6-year period (1997–2002) that in the 35 countries we study, politically connected firms are substantially more likely to be bailed out when the IMF or the WB intervenes. This preferential access to government bailouts is

consistent with allegations by IMF and WB critics, who complain that IMF and WB funds are frequently used to support companies belonging to the families and cronies of incumbent political leaders (e.g., Backman (1999), Hutchcroft (1998), Rose-Ackerman (1999)).

We add to the evolving literature on the economic role of political connections. The apparent inefficiencies in the allocation of capital that we document for politically connected bailouts have potentially larger ramifications for the economies involved. Studies by Demirgüç-Kunt and Maksimovic (1998), Greenwood and Jovanovic (1990), Levine (1997), and Rajan and Zingales (1998) document the important role of well-functioning capital markets in facilitating economic growth. These studies conclude that better developed capital markets spur economic growth. To the extent that bailouts of politically connected firms undermine the role of capital markets in allocating capital, they are likely to have an adverse effect on economic growth.

Appendix A: Data Sources

	Panel A: Data Sources for Parliaments	Panel B: Data Sources for Governments
General sources	http://www.ipu.org/english/parlweb. htm#t	http://www.gksoft.com/govt/en/world. html CIA, 2001, "Chiefs of State" (available at: http://www.cia.gov/cia/ publications/chiefs/)
Australia	http://www.aph.gov.au/house/ http://www.aph.gov.au/senate/	http://www.gksoft.com/govt/en/au.html
Austria	http://www.parlinkom.gv.at	http://www.gksoft.com/govt/en/at.html
Belgium	http://www.fed-parl.be http://www.parl-fed.be http://www.dekamer.be/ http://www.lachambre.be/ http://www.senate.be/	http://www.gksoft.com/govt/en/be.html
Canada	http://www.parl.gc.ca	http://www.gksoft.com/govt/en/ca.html
Chile	http://www.congreso.cl http://www.camara.cl/ http://www.senado.cl/	http://www.gksoft.com/govt/en/cl.html
Denmark	http://www.folketinget.dk http://www.ft.dk/	http://www.gksoft.com/govt/en/dk.html
Finland	http://www.eduskunta.fi	http://www.gksoft.com/govt/en/fi.html
France	http://www.assemblee-nationale.fr/ http://www.senat.fr	http://www.gksoft.com/govt/en/fr.html
Germany	http://www.bundestag.de http://www.bundesrat.de	http://www.gksoft.com/govt/en/fr.html
Greece	http://www.parliament.gr	http://www.gksoft.com/govt/en/gr.html
Hong Kong	http://www.chinabusiness.com/ govern/npc.htm	http://www.gksoft.com/govt/en/cn.html http://www.gksoft.com/govt/en/hk.html
Hungary	http://www.mkogy.hu	http://www.cia.gov/cia/publications/ chiefs/chiefs78.html
India	http://alfa.nic.in http://parliamentofindia.nic.in/	http://www.gksoft.com/govt/en/in.html
Indonesia	http://www.dpr.go.id/	http://www.gksoft.com/govt/en/id.html

Appendix—*Continued*

	Panel A: Data Sources for Parliaments	Panel B: Data Sources for Governments
Ireland	http://www.irlgov.ie/oireachtas/	http://www.gksoft.com/govt/en/ie.html
Israel	http://www.knesset.gov.il http://www.israel-mfa.gov.il/ gov/knesset.html	http://www.gksoft.com/govt/en/il.html
Italy	http://www.parlamento.it http://www.camera.it/ http://www.senato.it/senato.htm	http://www.gksoft.com/govt/en/it.html
Japan	http://www.shugiin.go.jp http://www.sangiin.go.jp	http://www.gksoft.com/govt/en/jp.html
Luxembourg	http://www.chd.lu/fr/organisation/ membres/membres01.jsp	http://www.cia.gov/cia/publications/ chiefs/chiefs106.html
Malaysia	http://www.parlimen.gov.my	http://www.gksoft.com/govt/en/my.html
Mexico	http://www.camaradediputados.gob.mx http://www.senado.gob.mx	http://www.gksoft.com/govt/en/mx.html
Netherlands	http://www.parlement.nl http://www.dds.nl/overheid/pdc/ http://www.eerstekamer.nl/	http://www.gksoft.com/govt/en/nl.html
Philippines	http://www.congress.gov.ph/ http://www.dbm.gov.ph/gov_dir/ senate_dir.htm	http://www.da.gov.ph/
Portugal	http://www.parlamento.pt	http://www.gksoft.com/govt/en/pt.html
Russia[a]	http://www.duma.ru/deputats/list/ frmlist.htm http://www.council.gov.ru/sostav/ members/spisok.htm	http://www.cia.gov/cia/publications/ chiefs/chiefs145.html
Singapore	http://www.gov.sg/parliament/	http://www.gksoft.com/govt/en/sg.html
South Korea	http://www.assembly.go.kr	http://www.gksoft.com/govt/en/kr.html http://www.gksoft.com/govt/en/kp.html
Spain	http://www.congreso.es http://www.senado.es	http://www.gksoft.com/govt/en/es.html
Sweden	http://www.riksdagen.se	http://www.gksoft.com/govt/en/se.html
Switzerland	http://www.parliament.ch	http://www.gksoft.com/govt/en/ch.html
Taiwan	http://www.ly.gov.tw/	http://www.cia.gov/cia/publications/ chiefs/chiefs173.html
Thailand	http://www.parliament.go.th	http://www.gksoft.com/govt/en/th.html
Turkey	http://www.tbmm.gov.tr	http://www.gksoft.com/govt/en/tr.html
U.K.	http://www.parliament.uk	http://www.gksoft.com/govt/en/gb.html
U.S.	http://www.congress.gov http://www.senate.gov http://www.house.gov	http://www.gksoft.com/govt/en/us.html

Panel C: Data Sources for Ownership

General data	Ownership data are gathered from the country sources listed below, and integrated with Extel, Worldscope, and Claessens et al. (2000) for Asian countries, and with Faccio and Lang (2002) for western European countries
	These same sources as well as the 2000 "Fortune 500 global list" are used to identify government ownership
	Lists of privatized firms are obtained from SDC Platinum, Bortolotti et al. (2001), Dewenter and Malatesta (1997), an appendix available at www.afajof.irg/Pdf/supplements/ap5080.pdf, and Megginson et al. (1994)
	Group affiliation data are taken from Extel, Worldscope, Claessens et al. (2000), and Faccio and Lang (2002)

[a]Transliteration from the Cyrillic made through the web site http://www.cifirica.ru/

Appendix—*Continued*

Panel C: Data Sources for Ownership

Australia	Australian Stock Exchange (1997), *The Investor Handbook,* Sydney, N.S.W.
	http://www.companies.govt.nz/search/cad/dbssiten.main
Austria	Wiener Börse (2001), *Yearbook 2000,* Österreichische Vereinigung für Finanzanalyse,
	Wien
Belgium	Banque Bruxelles Lambert (2000), "Actionnariat des Sociétés Belges cotées à Bruxelles,"
	Department Etudes et Stratégie
	http://www.stockexchange.be/enindex.htm
Denmark	Hugin, Annual Report CD (1998) (http://www.huginonline.com)
Finland	*Helsinki Media Blue Book,* "Major Finnish Companies Internet Database."
	(http://www.bluebook.fi/en/tuotteet/haku/majorfinnishcompanies.html)
	http://www.huginonline.com
France	http://www.bourse-de-paris.fr/fr/index_fs.htm?nc=2&ni=6&nom=marche
	Herald Tribune (1997), *French Company Handbook 1997,* SFB-Paris Bourse
Germany	Commerzbank (1997), "Wer gehört zu wem" (http://www.commerzbank.com/
	navigate/date_frm.htm)
	Bundesaufsichtsamt für den Wertpapierhandel, "Major Holdings of Voting Rights in
	Officially Listed Companies," December 2000
Greece	http://www.ase.gr/
Hong Kong	*Asian Company Handbook* (1998)
Indonesia	*Asian Company Handbook* (1998)
Ireland	http://www.hemscott.com/equities/company/
Italy	http://www.consob.it/trasparenza_soc_quot/trasp_soc_quot.htm
Japan	Toyo Keizai Shanposha (2001), "*Japan Company Handbook*," Tokyo, Japan, Summer
	Edition
Malaysia	*Asian Company Handbook* (1998)
Mexico	*Mexico Company Handbook 97,* Reference Press, Inc.
Philippines	*Asian Company Handbook* (1998)
Portugal	Bolsa de Valores de Lisboa e Porto (2000), "Sociedades Cotadas 1999," CD-ROM
Singapore	*Asian Company Handbook* (1998)
South Korea	*Asian Company Handbook* (1998)
Spain	http://www.cnmv.es/english/cnmve.htm
Sweden	http://www.huginonline.com
Switzerland	Union Bank of Switzerland (1998), *Swiss Stock Guide 96/97,* Zurich
Taiwan	*Asian Company Handbook* (1998)
Thailand	*Asian Company Handbook* (1998)
Turkey	Istanbul Stock Exchange (2001), *Yearbook of Companies,* available at: http://www.ise.org
U.K.	http://www.hemscott.com/equities/company/
U.S.	http://www.sec.gov/

Panel D: Data Sources for Boards of Directors

Extel, Lexis-Nexis proxy statements (U.S. corporations), and Worldscope

Panel E: Data Sources on Political Corruption, Financial Scandals, Political Connections

Forbes, 2000 and 2001, "World's Richest People"
The Economist, various issues

Panel F: Data Sources on Family Affiliation

Agrawal, Anup, and Charles R. Knoeber, 2001, Do some outside directors play a political role? *Journal of Law and Economics* 44, 179—198

Backman, Michael, 1999, *Asian Eclipse: Exposing the Dark Size of Business in Asia*, Wiley & Sons (Asia)

(*continued*)

Appendix—*Continued*

Panel F: Data Sources on Family Affiliation

Fisman, Raymond, 2001, Estimating the value of political connections, *American Economic Review* 91, 1095–1102

Forbes, 2000 and 2001, World's richest people (available at http://www.forbes.com/poeple/2001/06/21/billionairesindex.html)

Forbes, 2001, The Forbes four hundred (richest Americans) (available at http://www.forbes.com/2001/09/27/400.html)

Fortune, 2001, Fortune's 50 most powerful women in American business, October 15

Fortune, 2001, The global power 50, October 15

Gomez, Edmund Terence, and K.S. Jomo, 1997, *Malaysia's Political Economy: Politics, Patronage and Profits* (Cambridge University Press)

Johnson, Simon, and Todd Mitton, 2003, Cronyism and capital controls: Evidence from Malaysia, *Journal of Financial Economics* 67, 351–382

The Stationery Office, 2001, Register of members' interests, downloadable from http://www.publications.parliament.uk/pa/cm200001/cmregmem/memi02.htm

Appendix B: Examples of Corporate Bailouts

Bangkok Land Gets a Second Chance. *Business Day,* March 8, 2000. The government's economic council has drawn up a debt *restructuring* deal for Bangkok Land over debts owed to the Government Savings Bank. The loans were made to fund construction of the sports complex used to host the Asian Games, which were held in Thailand over a year ago, Matichon Daily reported. About 175 million baht in principle payments due this year have been delayed until 2004.

Firms paying bonuses despite slow recovery. *The Nation* (*Thailand*)*,* June 26, 2000. Despite the slow economic recovery, some companies in the banking, insurance, energy, and printing sectors are going to pay a half-yearly bonus to their workforce. Krung Thai Bank (KTB), which has been *bailed out* generously by the government, is to pay a relatively high bonus equivalent to 2 months' salary for the January–June period.

Indonesia to own 95% of Bank Danamon after emergency *bailout*, October 15, 1998. Jakarta, Indonesia (*Dow Jones*). In another move toward *restructuring* Indonesia's beleaguered banking system, the Indonesian Bank Restructuring Agency Thursday unveiled a debt-for-equity swap that will leave the government with at least a 95% stake in PT Bank Danamon. The *restructuring* will convert Bank Indonesia's liquidity credits into government shares through the agency, known as IBRA, the agency said, adding that Danamon's shareholders agreed to the proposal.

MISC—Konsortium deal not a *bailout*—Daim. Reuters News, March 9, 1998. Kuala Lumpur, March 9 (Reuters)—Malaysian International Shipping Corp Bhd's purchase of shipping assets from a company run by Prime Minister Mahathir Mohamad's son was not a bailout, Economic Adviser to the Government Daim Zainuddin said on Monday. He told Reuters in an interview that MISC's decision to buy ships and subsidiaries of Konsortium

Perkapalan, 51% owned by Mirzan Mahathir, was commercial in nature, as was the involvement of national oil company Petrolium Nasional Bhd (Petronas).

US$1.95b govt *aid* to cover MAS insurance shortfall. *Business Times,* September 26, 2001. The Government has announced that it will provide up to US$1.95 billion (US$1 = RM3.80) to cover Malaysian Airline System Bhd's (MAS) shortfall in insurance coverage.

Malaysian government in 2.76 billion dollar bid to *restructure* Renong. *Agence France-Presse,* October 9, 1998. Kuala Lumpur, October 9 (AFP)—The Malaysian government will issue 10.5 billion ringgit (2.76 billion dollars) in bonds to *restructure* diversified venture Renong Bhd, organisers of the plan, Credit Suisse First Boston, said Friday.

EU approves 121 million Euro state aid for Italian Iveco. *Italian News Digest,* October 2, 2002. The EU Commission has approved a state *aid* of 121 million euro ($118.8 million) for Italian carmaker Fiat's industrial vehicles unit Iveco, it was reported on October 2, 2002.

Malaysia acts on bad debt. *Australian Financial Review,* August 10, 2001. Malaysia has again showed its teeth in cleaning up corporate debt. The Government has ordered a boardroom shuffle at Malaysian Resources Corp. and issued new *restructuring* deadlines. Two corporate high-flyers, former executives with the State *bailout* fund, have been appointed to run the debt-ridden company. The fund's president, Mr. Abdul Rahman Maidin, has been made chairman.

Railtrack may be relisted soon. *The Times,* March 26, 2002. Railtrack shares could resume trading on the Stock Exchange as soon as July if shareholders accept the £9 billion *rescue* package backed by the Government. Railtrack Group, the holding company which is not in administration, said yesterday that its shares could be relisted if more than 50% of shareholders back the move at an extraordinary general meeting likely to be held in June.

Polysindo debt *restructured* by end December. Reuters News, November 9, 2000. Jakarta, November 9 (Reuters)—An Indonesian government debt workout entity said on Thursday it would *restructure* $2 billion in debts, including obligations from PT Polysindo Eka Perkasa, by the end of December.

REFERENCES

Agrawal, Anup, and Charles R. Knoeber, 2001, Do some outside directors play a political role? *Journal of Law and Economics* 44, 179–198.

Backman, Michael, 1999, *Asian Eclipse: Exposing the Dark Side of Business in Asia* (Wiley, Singapore).

Bertrand, Marianne, Francis Kramarz, Antoinette Schoar, and David Thesmar, 2004, Politically connected CEOs and corporate outcomes: Evidence from France, Working paper, University of Chicago.

Bortolotti, Bernardo, Marcella Fantini, and Domenico Siniscalco, 2001, Privatization: Politics, institutions and financial markets, *Emerging Markets Review* 2, 109–137.

Brown, Craig O'Neil, and I. Serdar Dinç, 2005, The politics of bank failures: Evidence from emerging markets, *Quarterly Journal of Economics* 120, 1413–1444.

Calvi, Fabrizio, and Jean-Michel Meurice, 1999, *Série Noire au Crédit Lyonnais* (Albin Michel Editions, Paris).

Campbell, John, 1996, Understanding risk and return, *Journal of Political Economy* 104, 298–345.

Chiu, Ming Ming, and Sung Wook Joh, 2004, Loans to distressed firms: Political connections, related lending, business group affiliations, and bank governance, Working paper, Chinese University of Hong Kong.

Claessens, Stijn, Simeon Djankov, and Larry H. P. Lang, 2000, The separation of ownership and control in East Asian corporations, *Journal of Financial Economics* 58, 81–112.

Cull, Robert, and Lixin Colin Xu, 2005, Institutions, ownership and finance: The determinants of profit reinvestment among Chinese firms, *Journal of Financial Economics* 77, 117–146.

Demirgüç-Kunt, Asli, and Vojislav Maksimovic, 1998, Law, finance, and firm growth, *Journal of Finance* 53, 2107–2137.

Dewenter, Kathryn L., and Paul H. Malatesta, 1997, Public offerings of state-owned and privately-owned enterprises: An international comparison, *Journal of Finance* 52, 1659–1679.

Dinç, I. Serdar, 2005, Politicians and banks: Political influences on government-owned banks in emerging countries, *Journal of Financial Economics* 77, 453–479.

Faccio, Mara, 2003, Politically connected firms: Can they squeeze the state? Working paper, Vanderbilt University.

Faccio, Mara, 2006, Politically connected firms, *American Economic Review* 96, 369–386.

Faccio, Mara, and Larry H. P. Lang, 2002, The ultimate ownership of western European corporations, *Journal of Financial Economics* 65, 365–395.

Fisman, Raymond, 2001, Estimating the value of political connections, *American Economic Review* 91, 1095–1102.

Gay, Pierre-Angel, and Caroline Monnot, 1999, *François Pinault Milliardaire ou les Secrets d'une Incroyable Fortune* (Editions Balland, Paris).

Gomez, Edmund Terence, and K. S. Jomo, 1997, *Malaysia's Political Economy: Politics, Patronage and Profits* (Cambridge University Press, Cambridge).

Greene, William H., 2003, *Econometric Analysis*, 5th ed. (Prentice Hall, Saddle River).

Greenwood, Jeremy, and Boyan Jovanovic, 1990, Financial development, growth, and the distribution of income, *Journal of Political Economy* 98, 1076–1107.

Hutchcroft, Paul D., 1998, *Booty Capitalism: The Politics of Banking in the Philippines* (Cornell University Press, Ithaca and London).

Johnson, Simon, and Todd Mitton, 2003, Cronyism and capital controls: Evidence from Malaysia, *Journal of Financial Economics* 67, 351–382.

Kaufmann, Daniel, Aart Kraay, and Massimo Mastruzzi, 2003, Governance matters III: Governance indicators for 1996–2002, World Bank Policy Research Working Paper No. 3106.

Khwaja, Asim Ijaz, and Atif Mian, 2005, Do lenders favor politically connected firms? Rent-provision in an emerging financial market, *Quarterly Journal of Economics* 120, 1391–1411.

Krueger, Anne O., 1974, The political economy of the rent-seeking society, *American Economic Review* 64, 291–303.

La Porta, Rafael, Florencio Lopez-de-Silanes, and Andrei Shleifer, 2002, Government ownership of banks, *Journal of Finance* 57, 265–301.

Levine, Ross, 1997, Financial development and economic growth: Views and agenda, *Journal of Economic Literature* 35, 688–726.

Megginson, William, Robert Nash, and Matthias van Randenborgh, 1994, The financial and operating performance of newly-privatized firms: An international empirical analysis, *Journal of Finance* 49, 403–452.

Morck, Randall K., David A. Stangeland, and Bernard Yeung, 2000, Inherited wealth, corporate control, and economic growth: The Canadian disease, in Randall K. Morck, ed.: *Concentrated Corporate Ownership* (University of Chicago Press, Chicago, IL).

Rajan, Raghuram G., and Luigi Zingales, 1998, Financial dependence and growth, *American Economic Review* 88, 559–586.

Roberts, Brian E., 1990, A dead senator tells no lies: Seniority and the distribution of federal benefits, *American Journal of Political Science* 34, 31–58.

Rose-Ackerman, Susan, 1999, *Corruption and Government: Causes, Consequences, and Reform* (Cambridge University Press, Cambridge, UK).

Sapienza, Paola, 2004, The effects of government ownership on bank lending, *Journal of Financial Economics* 72, 357–384.

Shleifer, Andrei, and Robert W. Vishny, 1994, Politicians and firms, *Quarterly Journal of Economics* 109, 995–1025.

Shleifer, Andrei, and Robert W. Vishny, 1998, *The Grabbing Hand: Government Pathologies and Their Cures* (Harvard University Press, Cambridge, MA).

Stulz, René M., 2005, Presidential address: The limits of financial globalization, *Journal of Finance* 60, 1595–1638.

Wooldridge, Jeffrey M., 2002, *Econometric Analysis of Cross Section and Panel Data* (The M.I.T. Press, Cambridge, MA).