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Why government banks underperform: A political interference view

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ABSTRACT

This study proposes a *political interference hypothesis* to explain how political considerations depress the performance of government banks. We define political interference as a situation in which government bank executives are replaced within 12 months after the country's major elections (presidential or parliamentary elections). We classify political and non-political government banks as those that experience or do not experience political interference, respectively. The hypothesis firstly suggests that once government banks undertake political interference, their financial performance deteriorates. That is, political banks display the worst performance, followed by non-political banks and private banks have the best performance. Next, we posit that the impact of political interference is greater in developing countries than in developed countries. Finally, we hypothesize that the underperformance of government banks will be reduced if we remove political interference. By employing bank data from 65 countries from the period of 2003–2007, our hypothesis effectively explains why government banks in developed countries escape relatively unscathed, while those in developing countries suffer significantly.

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1. Introduction

This study examines whether or not government-owned banks (GOBs) underperform private-owned banks (POBs).¹ Empirical studies typically support this assertion regardless of profitability

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¹ Throughout the paper, the terms “government-owned banks” and “government banks” are used interchangeably. The terms “private-owned banks” and “private banks” are also used interchangeably.

measures, regions, and sample periods. For example, Mian (2003) found that government banks uniformly underperform private banks by examining 250 GOBs from 71 emerging economies. Iannotta et al. (2007), using an enlarged sample, found that government banks have lower profitability, loan quality, and higher insolvency risk compared with private banks. Furthermore, Cornett et al. (2008) found that government banks are significantly less profitable than private banks. Micco et al. (2007) also discovered government bank underperformance in less developed countries (LDCs)² but not in developed countries (DCs).³ For simplicity, this study refers to the underperformance of government banks as the “GOB effect.”

Several studies have provided explanations to account for the GOB effect. Sapienza (2004) proposed the social, agency, and political views to explain government bank under-performance. Both the social and agency views indicate that government banks are designed to maximize social welfare rather than profit, whereas the political view suggests that GOBs provide a mechanism for pursuing the goals of individual politicians. Beim and Calomiris (2001, p. 101) account for GOB inefficiency by identifying four similar factors, namely, multiplicity of goals, monopoly position, weak managerial incentives, and soft budgetary constraints. The multiple objectives of government banks also imply that such banks do not necessarily pursue profit maximization. Megginson (2005), along with other researchers, has presented similar explanations for the GOB effect.⁴ These theoretical explanations clarify the reasons for the poor performance of government banks.

This study focuses empirically on one of the theoretical explanations: the impact of political interference on the poor performance of government banks. The difficulty of examining the effect of political interference on government banks lies in the lack of any operational definition for the concept. In the literature, election years are often used to measure political interference on GOBs (e.g., Brown and Dinç, 2005; Dinç, 2005; Micco et al., 2007). Sapienza (2004) also considered election years and ruling party to measure political interference. Our proxy of political interference, which has not previously been used, describes a situation in which executives of government banks are replaced within 12 months after major elections. Our major elections include presidential elections in countries with the president system and highest parliamentary elections in countries with the parliamentary system (see Persson and Tabellini, 2003, for the countries adopting either political system and Freedom House publications for the name lists of these countries). The proxy is referred to as “executive turnover” hereafter,⁵ where the executives include the CEO or the chairman of the board of a bank. Our event periods also include election years and the executive turnovers after elections.⁶

To increase the sample size of executive turnovers during major elections, our sample includes 65 countries for the period of 2003–2007. For country-level information, we collect the dates of each country’s major elections. With respect to bank-level information, we first identify banks in each country as government banks if the government ownership exceeded 20% of total shares, giving us a total of 226 government banks. Then, we search over the names of all directors and CEOs of these government banks from various sources, such as the Bankscope database, company websites, local newspapers, The Wall Street Journal, and the Factiva database.⁷ The searching process is laborious and difficult because many banks only provide partial lists of board members, change their names or are acquired by other banks. Thus, we end up with about 80% of government banks for the period

² The terms “developing countries” and “less developed countries” are used interchangeably in this paper.

³ Numerous studies have compared the performance of GOBs and POBs from the perspective of privatization. The GOB effect exists if GOB performance is improved upon privatization. Beck et al. (2005) examined a sample of Nigerian banks and found that overall performance improved in nine privatized banks, but their performance failed to surpass those of existing private banks. Boubakri et al. (2005) found that several performance measures, but not all, improved after privatization in developing countries. Furthermore, Weintraub and Nakane (2005) examined the privatization experience of Brazilian banks, and found that GOBs are significantly less productive than private banks.

⁴ Megginson (2005) offered four reasons why GOBs are inherently inefficient. The four reasons are as follows. First, GOBs are created especially so that politicians can use them to benefit their own supporters at the expense of other social groups. Next, politicians who oversee GOBs cannot credibly commit not to bankrupt poorly performing banks. Third, managers of GOBs have weaker incentives than managers of POBs to manage their organizations effectively. Finally, government enterprises will be subject to less intense monitoring by owners.

⁵ Our deep appreciation goes to the referee for his constructive suggestions for the hypothesis.

⁶ Note that we exclude countries that are not deemed to have “free” or “partially free” elections (see data section for countries adopted). We appreciate the suggestion of one referee.

⁷ Factiva is a new global database, which includes data from Dow Jones, Reuters, The Wall Street Journal, and so on.

2003–2007.⁸ Last, with the name lists on hand, we examine whether or not the executives of each GOB are replaced in their respective countries as described above.

Upon identifying government banks heavily involved in political interference, we propose the *political interference hypothesis* to explain the GOB effect. This hypothesis first suggests that once government banks allow political interference, their financial performance deteriorates. This means that government banks undergoing political interference (hereafter called “political banks”) should display the worst performance, followed by government banks undergoing no political interference (hereafter called “non-political banks”). Private banks are expected to exhibit the best performance, which serves as our benchmark. Next, the impact of political interference is much larger in developing countries than in developed countries. Finally, if the interference is indeed the reason causing the performance deterioration of government banks, then the deterioration should be minimized if political interference is removed.

The hypothesis presented in this study has interesting implications. It implies that the performance of two similar government banks may differ significantly because they bear different degrees of political interference. In contrast, government banks may have the opportunity to perform similarly with private banks if they bear no political interference. In addition, our study can explain the findings of Micco et al. (2007) which reported that government banks underperform private banks in developing countries but not in developed countries. In developing countries, government banks experience more political interference than in developed countries.

This study makes several contributions to the literature. Recently, numerous studies have examined the effect of political interference on bank activities. However, such investigations typically use election years as the proxy for political interference and focus on the impact of political interference on bank activities than do performance comparisons.⁹ Our study refers election years to the macro-level proxy for political interference since an election year affects all banks, though only certain banks are asked to increase lending at this time. In contrast, our proxy for political interference is bank-level based. Thus, the first contribution of our study is that we combine both macro and micro political interferences, both of which affect the executive turnover of each government bank within 12 months after the major elections on a case-by-case basis.

Next, following the studies of Dinç (2005) and Micco et al. (2007), we investigate whether or not worse performance records come from election factor (macro) or our political interference factor (macro–micro). Moreover, usually in countries with high corruption levels, the performance of GOBs is typically worse than that of POBs (Sapienza, 2004; Dinç, 2005; Micco et al., 2007). Consequently, we test whether our results are not just due to the level of corruption. Both the empirical results supported our *political interference hypothesis* again.

Last, we examine the robustness of our estimated results by using a new proxy for political interference proxy, that is, government bank merging a distressed bank.¹⁰ Our results that political interferences cause the underperformance of GOBs are still confirmed. Other robustness checking includes the following considerations. We change our benchmark of private banks to be non-political government banks (hereafter non-political banks), use different percentages of government-ownership to identify GOBs,¹¹ exclude countries without elections, and employ country governance dummy variable¹² to replace the corruption dummy variable for a new classification of countries.

The remainder of this paper is organized as follows. Section 2 discusses the conceptual framework of political interference. Section 3 then presents the basic statistics and descriptive results. Section 4

⁸ See data section for details.

⁹ Sapienza (2004) found that GOBs charge lower interest rates for firms affiliated with the ruling party than for firms without such an affiliation in Italy. Moreover, Dinç (2005) demonstrated that GOBs increase their lending during election years relative to private banks. Furthermore, Brown and Dinç (2005) supported the notion that failing banks are much less likely to lose their license or be taken over by the government before major elections than after; they thus argued that much of the within-country clustering in emerging market bank failures result directly from political concerns. However, Micco et al. (2007) also discussed the poor performance of government banks and reduced lending during election years.

¹⁰ A distressed bank is meaning the net income or equity of bank is negative during the merged period.

¹¹ La Porta et al. (2002) and Dinç (2005) used 20% share as the threshold for determining government ownership. Micco et al. (2007) used 50% government share as the threshold for identifying government-owned banks.

¹² Country governance data are obtained from Kaufmann et al. (2007).

presents empirical results using regression analysis. Next, Section 5 presents a robustness check related to the *political interference hypothesis*. Finally, Section 6 presents conclusions, including a brief summary of the main findings and an assessment of their implications.

2. Definition and data on political interference

2.1. Definitions of government-owned banks

Our government-owned bank data is collected as follows. First, we define GOBs in situations, in which the government owns over 20% of total shares. At this early stage, we obtain government ownership data for each bank from Bankscope each year with 2001 as the start year. Given that Bankscope only carries current government ownership and does not provide time series data, we collect the data on government ownership for other years from other sources.

Next, we track ownership changes using privatization databases from the World Bank as reported in Verbrugge et al. (1999), Megginson (2005), Bonin et al. (2005), Beck et al. (2005), and Clarke et al. (2005). These databases contain information on shareholding changes for some government banks. If the GOBs were privatized anytime from 1993 to 2007, the sample before their privatization was used.

Third, we search each bank's website and publications, such as Bankers Almanac, American Banker, Bank Director and ABA Banking Journal, for verification purposes. Accordingly, we obtain information on the full bank ownership history. If the GOBs are merged with other banks, we only use the periods before their mergers.

Notably, this study only considers countries with GOBs, and excludes those without GOBs. Then, we compare the financial performance of all GOBs and POBs in the same country. The sample at this moment contains 329 GOBs from 100 countries for the period 1993–2007. Finally, we exclude the countries that are not deemed to have free or partially free elections during 2003–2007 and therefore, the samples are further reduced to 226 GOBs from 65 countries.

2.2. Identifying banks and examining political interference

This section describes the process of defining political GOBs, in which executives have been replaced within 12 months after major elections. To identify if government banks experience political interference, we first collect the dates of all major elections in 100 countries from 1993 to 2007. The starting year of 1993 is determined because Bankscope started to provide accounting data on that year. Prior to 2003, Bankscope provides only a limited number of name lists of GOB executives. Thus, we have to collect the name lists from various sources, such as company websites, local newspapers, Wall Street Journal, and the Factiva database. After 2003, Bankscope provides more complete names of most of the government banks.

We lost some bank data during the searching and identifying processes. First, bank websites do not report the names of past directors, especially for those non-listed government banks, which comprising 60% of our sample GOBs. In addition, many government banks changed their names after M&As or privatization, making the name-matching with those in Bankscope and Factiva databases difficult. For instance, in China, the Shanghai City United Bank changed its name to the Bank of Shanghai. To ensure that we do not commit double counting or miss-matching errors, we trace bank names repeatedly from various sources at various stages of checking to confirm data validity. Finally, we check case-by-case whether or not executives of each GOBs have been replaced within 12 months after major elections.

After the above procedures, we obtain about only 15% of the name lists for 226 GOBs from 1993 to 2002, and 80% of the names list from the period of 2003 to 2007 from Bankscope and other sources. Our identification results give us 63 and 163 political and non-political GOBs, respectively.¹³ Given that the names of executive turnovers are limited before 2003, our sample period covers 2003–2007.

¹³ The names of these banks as well as the detailed turnover records are not reported here but are available upon request.

Table 1
Definition of dummy, control, and performance variables.

Variable	Definition	Source of data
<i>Dummy variables</i>		
D_{GOB}	A dummy variable which is equal to one if the bank's government share in ownership is over 20% and 0 if otherwise	Bankscope and by us ^c
$D_{Political}$	A dummy variable which is equal to one if government bank executives are replaced within 12 months after a major elections (president or parliament elections) and 0 if otherwise. In here, the executive is the CEO or the chairman of the board	Bankscope, Factiva ^b and by us
D_{LDC}	A dummy variable which is equal to one if it is a developing country and 0 if otherwise	UNDP ^{a,d}
$D_{Election}$	A dummy variable which is equal to one if there is a mainly election in that country and 0 if otherwise	by us
$D_{H-corrupt}$	A dummy variable which is equal to one if the country is a high-corruption country and 0 if otherwise	Kaufmann et al. (2007)
D_{WGC}	A dummy variable which is equal to one if it is a weak governance country and 0 if otherwise	Kaufmann et al. (2007)
<i>Bank characteristic control variables</i>		
Asset	Log of total assets	Bankscope
D/E	Total debts to total equities	Bankscope
DEPLOAN	Average balance of loan to average balance of deposit	Bankscope
LIQUID	Current assets to total assets	Bankscope
<i>Macroeconomic control variables</i>		
GDPper	Country's GDP to population	World Bank
GDP growth	Country's GDP growth rate	World Bank
Budget surplus	Country's government budget surplus as a percentage of GDP	World Bank
Inflation rate	Country's inflation rate	World Bank
Exchange rate change	The change in the exchange rate of the domestic currency against the US dollar from the previous year	Datastream
<i>Performance variables</i>		
ROA	Ratio of net income to total assets	Bankscope
ROE	Ratio of net income to total equities	Bankscope
NIM	Ratio of net interest income to total assets	Bankscope
NPL	Ration of impaired loans to gross loans	Bankscope

Notes:

^a UNDP = United Nations Development Programme.

^b Factiva: a database including data from Dow Jones News, Reuters News and Wall Street Journal, etc.

^c By us: the variables are contrasted by authors.

^d The developed and developing countries are based on UNDP.

3. Basic statistics and descriptive results

3.1. Data description

Table 2 lists the basic statistics of government banks, private banks, and country variables across 65 countries. Column 2 shows that most countries have just one or two GOBs during the sample period. India, Argentina, Indonesia and Brazil are the countries with the largest numbers of GOBs with 20, 12, 10 and 10, respectively. Columns 3–4 list the political and non-political banks. Most government banks do not experience political interference; however, thirteen political banks have been identified in India, followed by Argentina with eight political banks. In addition, five political banks have been identified in Indonesia and Taiwan.

One note of caution is that while we try to be comprehensive in using all private banks, the use of all of them may be misleading. This is because many GOBs are among the largest banks in their coun-

tries, whereas many private banks are small.¹⁴ The comparison may be biased owing to the size effect. Therefore, we use the largest 20 private banks as the benchmark in each country.¹⁵ The data information of the largest 20 POBs is reported in column 5. In addition, the sample contained 16 and 49 developed and developing countries (hereafter called DCs and LDCs), respectively.

Especially, in DCs, the total number of POBs significantly exceeds that of GOBs, with the former reaching 301 and the latter reaching 60, using the 20% minimum threshold percentage share, respectively. However, in LDCs, the number of POBs also exceeds that of GOBs but the difference is less pronounced than in DCs. Furthermore, the number of political banks is 15 and 48 in DCs and LDCs, respectively, for the total number of 63 political banks. This also indicates that government banks in LDCs are more politically driven than those in DCs, which is consistent with the findings of poorer performance of government banks in LDCs than in DCs.

3.2. Validating the GOB effect

Table 3 lists four performance measures, namely, return on asset (ROA), return on equity (ROE), net interest margin (NIM) and non-performance loan (NPL) of GOBs and POBs. For simplicity, we only present the results of averaged sample period (2003–2007).¹⁶

Throughout this paper, the (performance) difference represents the performance measures of GOBs (political and non-political banks) minus those of POBs. The negative difference is a justification of the GOB effect. The results are summarized as follows. First, in Panel A, the performance difference between GOBs and POBs is significantly negative for ROA and ROE, while being significantly positive for asset quality. Private banks display higher ROA and ROE than government banks, but have a lower NPL, indicating that private banks are more profitable and have superior asset quality. To summarize, the GOB effect exists during this period in terms of two profit measures and asset quality.

3.3. Validating the GOB effect in DC and LDC

Panels B and C of Table 3 present the performance measures for individual countries classified as developed and developing. For brevity, we only discuss the averaged sample period.

First, in DCs, the differences for ROE and NPL are significantly negative and positive, respectively, indicating the existence of the GOB effect. However, surprisingly, GOBs even outperform POBs in terms of NIM. The difference is also insignificant for ROA. Thus, in DCs, the evidence of the GOB effect is mixed.

Next, in LDCs, the GOB effect is found. POBs have been demonstrated to have higher ROA and NIM, and lower NPL than GOBs. Moreover, their differences, except for ROE, are statistically significant at the 1% level. Although the difference of ROE is negative, it is insignificant. The differences for ROA, NIM, and NPL are also larger in LDCs compared to those in DCs, supporting the result that the GOB effect is greater in LDCs than in DCs. These results are largely consistent with those of Micco et al. (2007), although their study did not examine ROE and asset quality.

3.4. Political interference hypothesis and the GOB effect

In this section, we investigate the *political interference hypothesis*. First, we test whether or not political interference indeed causes the GOB effect using banks from all countries, DCs, and LDCs. Next, we reverse the aforementioned question by asking: Can the GOB effect be minimized if political inter-

¹⁴ Including a size measure in the regression will not be enough to control for the multitude of differences between large and small banks because the slope of explanatory variables, not just the intercept, is likely to be different. Regarding this question, we appreciate the suggestion of a referee.

¹⁵ If the total private banks of a country are less than 20 banks, we use all private banks in such country.

¹⁶ Although we also do the performance differences for every year, to save space, our discussion focuses on the performance in averaged sample period. Nevertheless, all other results are available upon request.

Table 2

Number of GOB, political bank and country development: 64 countries.

Country ID	Country name	Number of GOB Minimum shares owned by government		Political bank	Non-political bank	Number of POB	DC	LDC
		20%	50%					
		<i>Developed countries</i>						
1	Australia	5	1	1	4	20	1	0
2	France	6	1	0	6	20	1	0
3	Germany	9	3	0	9	20	1	0
4	Greece	2	1	1	1	20	1	0
5	Iceland	1	0	0	1	20	1	0
6	Israel	4	0	2	2	16	1	0
7	Korea	3	2	2	1	20	1	0
8	Kuwait	3	0	1	2	5	1	0
9	Luxembourg	1	1	0	1	20	1	0
10	Netherlands	1	1	0	1	20	1	0
11	Norway	4	0	0	4	20	1	0
12	Portugal	3	1	1	2	20	1	0
13	Slovenia	3	2	1	2	20	1	0
14	Sweden	2	0	1	1	20	1	0
15	Switzerland	4	4	0	4	20	1	0
16	Taiwan	9	2	5	4	20	1	0
	Total	60	19	15	45	301	16	0
<i>Developing countries</i>								
17	Argentina	12	9	8	4	20	0	1
18	Azerbaijan	2	2	0	2	8	0	1
19	Bahamas	1	1	1	0	20	0	1
20	Bangladesh	8	4	4	4	2	0	1
21	Benin	1	0	0	1	6	0	1
22	Bosnia-Herz.	1	1	0	1	5	0	1
23	Brazil	10	7	1	9	20	0	1
24	Bulgaria	4	1	0	4	8	0	1
25	Burkina F.	2	0	1	1	5	0	1
26	Colombia	2	0	0	2	20	0	1
27	Costa Rica	1	1	0	1	20	0	1
28	Domin. R.	1	1	0	1	20	0	1
29	Ghana	1	0	0	1	19	0	1
30	Guatemala	1	0	0	1	20	0	1
31	Hungary	2	0	1	1	20	0	1
32	India	20	17	13	7	20	0	1
33	Indonesia	10	6	5	5	20	0	1
34	Kenya	3	1	0	3	20	0	1
35	Latvia	2	1	1	1	20	0	1
36	Lebanon	1	1	0	1	20	0	1
37	Macedonia	1	0	0	1	15	0	1
38	Madagascar	2	0	0	2	4	0	1
39	Malaysia	3	2	1	2	20	0	1
40	Malta	1	0	0	1	14	0	1
41	Mauritius	1	0	0	1	16	0	1
42	Mexico	4	2	1	3	20	0	1
43	Moldova R.	2	1	0	2	15	0	1
44	Morocco	3	1	0	3	16	0	1
45	Pakistan	7	3	0	7	20	0	1
46	Peru	1	0	0	1	20	0	1
47	Philippines	3	1	0	3	20	0	1
48	Poland	9	1	2	7	20	0	1
49	Romania	3	1	2	1	20	0	1
50	Serbia	5	2	0	5	20	0	1
51	Seychelles	2	2	0	2	3	0	1
52	Sierra Leone	2	2	0	2	3	0	1

(continued on next page)

Table 2 (continued)

Country ID	Country name	Number of GOB Minimum shares owned by government		Political bank	Non-political bank	Number of POB	DC	LDC
		20%	50%					
53	Slovakia	2	0	0	2	20	0	1
54	South Africa	5	4	0	5	20	0	1
55	Sri Lanka	4	3	2	2	11	0	1
56	St. Kitts A.	1	1	0	1	1	0	1
57	Suriname	1	1	0	1	1	0	1
58	Syria	1	1	0	1	6	0	1
59	Tanzania	1	1	0	1	20	0	1
60	Thailand	6	1	3	3	19	0	1
61	Togo	2	1	0	2	4	0	1
62	Turkey	5	4	1	4	20	0	1
63	Ukraine	2	1	0	2	20	0	1
64	Uruguay	1	1	1	0	20	0	1
65	Zambia	1	0	0	1	11	0	1
	Total	166	90	48	118	732	0	49

Notes:

1. GOB: government-owned banks, which denotes the banks that are owned, directly or indirectly, by the government by least at 20% (or 50% level) share.
2. POB: private-owned banks, which denotes banks with government ownership of less than 20% (or 50%) share. Political and Non-political Banks: see Table 1.
3. DC: developed countries; LDC: developing countries.
4. Sample period: 2003–2007.

Table 3

Performance comparison, 2003–2007: GOB versus POB.

	ROA	ROE	NIM	NPL
<i>Panel A. All country</i>				
GOB	1.3994	14.8776	4.5675	8.2974
POB	1.5169	16.5915	4.5225	5.8623
Differ	−0.1175*	−1.7139**	0.045	2.4351***
P-value	(0.0864)	(0.0380)	(0.6906)	(0.0000)
<i>Panel B. Developed country</i>				
GOB	1.2428	11.6892	3.9684	6.9716
POB	1.2568	14.4369	3.5820	4.7551
Differ	−0.0141	−2.7478***	0.3864***	2.2165***
P-value	(0.8805)	(0.0001)	(0.0037)	0.0000
<i>Panel C. Developing country</i>				
GOB	1.5723	18.4196	5.2318	9.4681
POB	1.8593	19.4281	5.7567	6.9825
Differ	−0.2870***	−1.0086	−0.5249***	2.4856***
P-value	(0.0042)	(0.5127)	(0.0027)	(0.0000)

Notes:

1. Performance measures: proxied by ROA, ROE, NIM, and NPL.
2. The numbers here are average of the sample period from 2003 to 2007.
3. Differ = performance of GOB – performance of POB, where GOB is government banks and POB is private banks.
4. Superscripts ***, ** and * denote significance at 1%, 5%, and 10% levels, respectively.

ference is removed? If it is the interference that causes the GOB effect, then the underperformance should be minimized if the political factor is removed. Third, we use non-political banks to replace private banks as the benchmark. After this replacement, our results do not change.

Table 4

Performance comparison: political bank effect.

	ROA	ROE	NIM	NPL
<i>Panel A. PB-POB</i>				
<i>Panel A1. All country</i>				
PB	1.1386	12.2985	3.7453	7.1673
POB	1.5169	16.5915	4.5225	5.8623
Differ	-0.3783***	-4.2929***	-0.7772***	1.3050**
P-value	(0.0007)	(0.0001)	(0.0002)	(0.0151)
<i>Panel A2. Developed country</i>				
PB	1.0286	11.8069	3.7294	5.4782
POB	1.2568	14.4369	3.5820	4.7551
Differ	-0.2282**	-2.6301**	0.1474	0.7231
P-value	(0.0425)	(0.0381)	(0.4987)	(0.2407)
<i>Panel A3. Developing country</i>				
PB	1.3436	13.2151	3.7748	9.3797
POB	1.8593	19.4281	5.7567	6.9825
Differ	-0.5157***	-6.2131***	-1.9819***	2.3972***
P-value	(0.0038)	(0.0018)	(0.0000)	(0.0072)
<i>Panel B. NPB-POB in All country</i>				
NPB	1.4769	15.6477	4.8140	8.6835
POB	1.5169	16.5915	4.5225	5.8623
Differ	-0.0399	-0.9438	0.2915**	2.8212***
P-value	(0.5222)	(0.3509)	(0.0218)	(0.0000)
<i>Panel C. PB-NPB in All country</i>				
PB	1.1386	12.2985	3.7453	7.1673
NPB	1.4769	15.6477	4.8140	8.6835
Differ	-0.3384**	-3.3491**	-1.0687***	-1.5162*
P-value	(0.0272)	(0.0202)	(0.0000)	(0.0907)

Notes:

1. Performance measures, ROA, ROE, NIM and NPL.
2. The numbers here are average of the sample period from 2003 to 2007.
3. PB: political banks, POB: private banks, NPB: non-political banks.
4. Differ = Performance of PB – Performance of POB (NPB).
5. Superscripts ***, ** and * denote significance at 1%, 5%, and 10% levels, respectively.

Table 4 summarizes information on the impact of political interference on bank performance. Panels A1, A2, and A3 compare political banks with private banks for each year using banks of all countries, DCs, and LDCs, respectively.

First, in Panel A1, where we use sample banks of countries, the performance differences between political and private banks are significantly negative for ROA, ROE, and NIM, and significantly positive for NPL. Thus, all the performance measures confirm our hypothesis that political interference indeed causes the underperformance of GOBs. In Panel A2, using sample banks from DCs, the performance differences are insignificantly positive in terms of NIM and NPL, but are significantly negative for ROA and ROE. Thus, in DCs, the performances of GOBs do not undergo deterioration when these banks experience political interference in terms of NIM and NPL.

In Panel A3 where banks are from LDCs, we expect that the GOB effect is further aggravated when government banks suffer from political interference because the effect already exists. Employing ROA as the measure, the performance differences of political banks are mostly significantly negative at the 1% level. NIM and ROE show similar results as those in ROA. The performance difference in asset quality (NPL) is also significantly positive.

Overall, by using political banks, the basic statistics demonstrate that the GOB effect is fully supported using banks from LDC but only partially supported using banks from DCs.

In particular, GOB effects in LDCs are larger than in DCs. For instance, the differences are much larger in LDCs compared with those in DCs. Meanwhile, the GOB effect is more pronounced for political

banks compared with whole government banks in LDCs, indicating that political considerations reduce government bank performance.

Next, we test whether or not the GOB effect would still exist if we remove the political interference. Panel B of Table 4 presents the results for non-political versus private banks using banks from all countries.¹⁷ First, the performance differences are significantly positive for NIM and NPL. Moreover, the differences of using ROA and ROE are all insignificant. Thus, the evidence, except for NPL, confirms that the GOB effect does not exist in non-political banks if we remove the political interference.

Third, we use non-political banks as the new benchmark to test whether the impact of political interference still exists. Panel C of Table 4 demonstrates the results for political versus non-political banks based on all countries. Using ROA, ROE, and NIM, the performance differences are overwhelmingly significantly negative. Thus, except for NPL, the results again support our argument that political interference causes the GOB effect.

In sum, the above results closely correspond to the *political interference hypothesis*, stating that the financial ratios of government banks deteriorate once these banks experience political interference. This explains why government banks perform worse than private banks from a political interference perspective, and why the influences of political interference are more serious in LDCs than in DCs. That is, government banks in DCs display only weak GOB effect because many of them do not experience interference from politicians. However, government banks in LDCs, after experiencing more interference from politicians, suffer seriously adverse performance, thereby supporting the *political interference hypothesis* in this study.

4. Regression analysis

4.1. GOB effect

To examine the GOB effect, we conduct the following regressions using control variables.

$$\text{PERFORM} = \alpha_1 + \alpha_2 D_{\text{GOB}} + \beta Z + \text{year and country dummies} + \varepsilon \quad (1)$$

where PERFORM is proxied by three profitability measures (ROA, ROE, and NIM) and one asset quality measure (NPL¹⁸), and Z denotes the vector of the control variables, containing four bank characteristics and five macroeconomic control variables. Four bank characteristic control variables are log of assets (Asset), debt-to-equity ratio (Debt), loan-to-deposit ratio (DEPLOAN), and ratio of current to total assets (LIQUID). This study uses five macroeconomic variables: GDP per capita, GDP growth rate, budget surplus, inflation rate, and exchange rate. The selection of the control variables follows the studies of Dinç (2005), Iannotta et al. (2007), and Micco et al. (2007).¹⁹ We also modify the standard errors to be clustered at the country level in all regressions.²⁰ In addition, the year and country dummies are added to eliminate the year and country effects.

The dummy variable, D_{GOB} , is equal to 1 in the case of a GOB and 0 otherwise. The GOB effect is supported if α_2 is negative and positive when PERFORM is proxied by profit measures and asset quality measure, respectively.

Table 5 illustrates the estimated results using data from 2003 to 2007. For the sake of space, we do not report the coefficients of the year and the country dummies.²¹ Surprisingly, the concerned coefficients D_{GOB} (α_2) are significantly positive for NPL, but are insignificantly negative for ROA and ROE even though the p -values are around 0.18. These results show that the GOB effect weakly exists from 2003 to 2007. However, consistent with the literature, using the data periods from 1993

¹⁷ For brevity, we do not show the results using DC and LDC samples separately. However, the results are available upon request.

¹⁸ Given that the NPL is just for reference in this study, we keep this measure for comparison purposes because many extant literatures have reported the results using NPL.

¹⁹ We skip the explanation of control variables, but they can be found in the reference cited therein.

²⁰ Regarding this question, we appreciate the suggestion of the referee. Also, see Petersen (2009) for the detail discussion.

²¹ The estimated results are available upon request.

Table 5
Regression results: testing GOB effect.

Variable		ROA	ROE	NIM	NPL
<i>Panel A. GOB effect</i>					
Intercept	α_1	1.8290*** (0.0000)	12.7256*** (0.0000)	5.4919*** (0.0000)	7.6766*** (0.0001)
D_{GOB}	α_2	-0.0416 (0.1877)	-1.3976 (0.1879)	-0.0816 (0.7376)	2.2923** (0.0189)
Asset		-0.0329 (0.2541)	0.4476** (0.0493)	-0.1929** (0.0267)	-0.1795 (0.2503)
D/E		-0.0165*** (0.0012)	0.0614 (0.5112)	-0.0057 (0.1395)	0.0133 (0.1526)
DEPLOAN		0.0043*** (0.0000)	-0.0042 (0.4934)	-0.0021 (0.3278)	-0.1423 (0.1453)
LIQUID		-0.0040** (0.0357)	-0.0190 (0.2217)	0.0071 (0.2456)	-0.0162* (0.0730)
GDPper		0.0000* (0.0715)	-0.0001** (0.0171)	0.0000*** (0.0003)	-0.0001*** (0.0089)
GDP growth		0.3457 (0.4889)	0.4444 (0.9132)	2.4086* (0.0799)	-5.5616* (0.0518)
Budget surplus		-0.0032** (0.0320)	-0.0375** (0.0200)	-0.0036 (0.1219)	0.0005 (0.9664)
Inflation rate		0.0513*** (0.0068)	0.3283** (0.0423)	0.1986*** (0.0000)	0.1071 (0.3019)
Exchange rate change		0.1923 (0.2084)	0.9199 (0.5399)	-0.2631 (0.3906)	0.4223 (0.5119)
Bank Obs.		1259	1259	1259	796
Bank-year Obs.		4879	4876	4877	3018
<i>Control for</i>					
Year		Y	Y	Y	Y
Country		Y	Y	Y	Y

Notes:

1. The econometric model is:

$$\text{PERFORM} = \alpha_1 + \alpha_2 D_{GOB} + \beta Z + \text{year and country dummies} + \varepsilon$$

where PERFORM is proxied by ROA, ROE, NIM and NPL; D_{GOB} : dummy variable of GOB.

2. The sample covers from 2003 to 2007.

3. We do not report coefficients of year and country dummies to save on space.

4. The errors are corrected for heteroskedasticity using the White–Huber estimators as well as the standard errors are clustered at the country level in the regression. *P*-values are reported in parentheses and superscripts ***, ** and * denotes significance at 1%, 5%, and 10% levels, respectively.

to 2007, the coefficients D_{GOB} (α_2) are significantly negative for ROA, ROE, and NIM, as well as significantly positive for NPL.²² Therefore, the GOB effects are minimized in the most recent 5-year period.

The coefficients of bank characteristic and macro variables are also consistent with our expectation. We find that coefficients of Debt, DEPLOAN, and LIQUID are significantly negative, positive, and negative, respectively, when ROA is the dependent variable. The coefficient of Asset is also significantly positive when ROE is the dependent variable, all of which are consistent with our intuition. In other words, firms with larger asset size, lower debt ratio, higher loan-to-deposit ratio, and lower current assets ratio can enhance bank performance. The results of macroeconomic control variables are also consistent with our intuition. For, instance, the coefficients of budget surplus and inflation rate are significantly negative and positive for ROA, respectively, and the coefficient of GDP growth rate is positive for NIM. The results indicate that a country with lower budget surplus, higher inflation rate, and higher GDP growth rate can uplift bank performance.

²² The estimated results using the data periods from 1993 to 2007 are not reported but are available upon request.

Table 6
Regression results: testing political interference hypothesis.

Variable		ROA	ROE	NIM	NPL
<i>Panel A. GOB effect</i>					
Intercept	α_1	1.8213*** (0.0000)	13.0386*** (0.0000)	5.5866*** (0.0000)	7.7599*** (0.0000)
D_{GOB}	α_3	-0.0510 (0.6631)	-0.4731 (0.6870)	0.1950 (0.4622)	2.4950** (0.0236)
$D_{GOB} \times D_{Political}$	α_4	-0.3553* (0.0823)	-3.8102** (0.0287)	-1.1388*** (0.0009)	-0.7623 (0.4580)
Asset		-0.0329 (0.2547)	0.4266* (0.0633)	-0.1993** (0.0207)	-0.1854 (0.2285)
D/E		-0.0166*** (0.0011)	0.0618 (0.5125)	-0.0057 (0.1412)	0.0133 (0.1510)
DEPLOAN		0.0043*** (0.0000)	-0.0044 (0.4663)	-0.0021 (0.3076)	-0.1445 (0.1419)
LIQUID		-0.0040** (0.0358)	-0.0200 (0.2056)	0.0068 (0.2749)	-0.0169* (0.0660)
GDPper		0.0000 (0.1025)	-0.0001** (0.0166)	0.0000*** (0.0003)	-0.0001*** (0.0088)
GDP growth		0.3320 (0.5056)	0.3978 (0.9214)	2.3919* (0.0795)	-5.6262** (0.0493)
Budget surplus		-0.0032** (0.0365)	-0.0391** (0.0170)	-0.0041* (0.0803)	0.0002 (0.9871)
Inflation rate		0.0510*** (0.0067)	0.3265** (0.0427)	0.1980*** (0.0000)	0.1061 (0.3070)
Exchange rate change		0.1936 (0.2027)	0.8230 (0.5869)	-0.2920 (0.3412)	0.4014 (0.5287)
Bank Obs.		1259	1259	1259	796
Bank-year Obs.		4879	4876	4877	3018
<i>Control for</i>					
Year		Y	Y	Y	Y
Country		Y	Y	Y	Y

Notes:

1. The econometric model is:

$$\text{PERFORM} = \alpha_1 + \alpha_2 D_{GOB} + \beta Z + \text{year and country dummies} + \varepsilon; \quad \alpha_2 = \alpha_3 + \alpha_4 D_{Political}$$

where PERFORM is proxied by ROA, ROE, NIM and NPL; D_{GOB} : dummy variable of GOB; $D_{Political}$: dummy variable of political banks.

2. The sample covers from 2003 to 2007.

3. We do not report coefficients of year and country dummies to save on space.

4. The errors are corrected for heteroskedasticity using the White–Huber estimators as well as the standard errors are clustered at the country level in the regression. *P*-values are reported in parentheses and superscripts ***, ** and * denotes significance at 1%, 5%, and 10% levels, respectively.

4.2. The GOB effect and dynamic political interference

This section examines the influence of political interference on the GOB effect using data from 2003 to 2007. We create a political bank dummy, $D_{Political}$, to be unity after the executive turnover and zero otherwise,²³ that is, the dummy is unity after the event and zero before it. Hence, $D_{GOB} \times D_{Political}$ becomes the dummy of the political bank because it is the government bank that undertakes political interference.

$$\text{PERFORM} = \alpha_1 + \alpha_2 D_{GOB} + \beta Z + \text{year and country dummies} + \varepsilon; \quad \alpha_2 = \alpha_3 + \alpha_4 D_{Political} \quad (2)$$

²³ We also employ another two proxies for our political interference to examine the robustness of our hypothesis. See Section 5.2 for details.

The GOB effect is supported for political banks provided α_4 is negative and positive in profit regression and asset quality regression, respectively. Similarly, the GOB effect is upheld for non-political banks if α_3 is significant. In Table 6, the coefficients $D_{GOB} \times D_{Political} (: \alpha_4)$ are overwhelmingly significantly negative for ROA, ROE, and NIM, thereby supporting the *political interference hypothesis* that once government banks undergo political interference, their financial performance deteriorates. That is, after controlling bank characteristic and macroeconomic variables, the political interference still shows significant influence in explaining the underperformance of GOBs. However, the coefficient is insignificantly negative for NPL, indicating that political banks do not underperform relative to non-political banks in terms of NPL.

Next, we test whether or not the GOB effect would be minimized if we remove the political interference. If the GOB effect is coming from political interference, we expect non-political banks to perform as well as private banks. This means that the coefficients of non-political banks ($: \alpha_3$) should be insignificant in four performance measures. In Table 6, the coefficients of non-political banks ($: \alpha_3$) are insignificant for ROA, ROE, and NPL, suggesting that the GOB effect does not exist in non-political banks. The coefficients are also much smaller than those of $D_{GOB} (: \alpha_2)$ in Table 5, confirming that the GOB effect mainly comes from political interference. On the other hand, when performance is proxied by NPL, the coefficient is significantly positive, indicating that both political and non-political banks have higher impaired loan ratios. The coefficients of bank characteristic and macroeconomic variables remain similar to those in Table 5.

Accordingly, the results of profit measures are consistent with the *political interference hypothesis* stating that the GOB effect of government banks will be minimized if we remove the political interference.

4.3. Strong political interference and GOB effect

We next investigate whether strong political interference can explain the differences in the underperformance of government-owned banks in DCs versus LDCs. To do so, we add an interaction term of

Table 7
Testing political interference hypothesis: DCs versus LDCs.

Variable		ROA	ROE	NIM	NPL
<i>Panel A. GOB effect</i>					
Intercept	α_1	1.8204*** (0.0000)	12.9410*** (0.0000)	5.6060*** (0.0000)	7.7704*** (0.0000)
D_{GOB}	α_3	-0.0666 (0.6838)	-2.3332 (0.1185)	0.5284 (0.2105)	2.6719** (0.0253)
$D_{GOB} \times D_{Political}$	α_4	-0.3503* (0.0861)	-3.2268* (0.0710)	-1.2429*** (0.0006)	-0.7971 (0.4344)
$D_{GOB} \times D_{LDC}$	α_5	0.0301 (0.8944)	3.6039 (0.1460)	(0.6477) (0.3142)	(0.3170) (0.8681)
Bank Obs.		1259	1259	1259	796
Bank-year Obs.		4879	4876	4877	3018
<i>Control for</i>					
Control variables		Y	Y	Y	Y
Year		Y	Y	Y	Y
Country		Y	Y	Y	Y

Notes:

1. The econometric model is:

$$PERFORM = \alpha_1 + \alpha_2 D_{GOB} + \beta Z + \text{year and country dummies} + \varepsilon; \quad \alpha_2 = \alpha_3 + \alpha_4 D_{Political} + \alpha_5 D_{LDC}$$

where PERFORM is proxied by ROA, ROE, NIM and NPL; D_{GOB} : dummy variable of GOB; $D_{Political}$: dummy variable of political banks; D_{LDC} : dummy variable for less developed countries.

2. The sample covers from 2003 to 2007.

3. We do not report coefficients of Z and year and country dummies to save on space.

4. The errors are corrected for heteroskedasticity using the White–Huber estimators as well as the standard errors are clustered at the country level in the regression. P -values are reported in parentheses and superscripts ***, ** and * denotes significance at 1%, 5%, and 10% levels, respectively.

government-owned bank dummy (D_{GOB}) and developing country dummy (D_{LDC}) to Eq. (2). The dummy, D_{LDC} , refers to developing countries.²⁴

$$\begin{aligned} \text{PERFORM} &= \alpha_1 + \alpha_2 D_{GOB} + \beta Z + \text{year and country dummies} + \varepsilon \\ \alpha_2 &= \alpha_3 + \alpha_4 D_{Political} + \alpha_5 D_{LDC} \end{aligned} \quad (3)$$

If strong political interference can explain the GOB effect in DCs and LDCs, α_3 and α_5 would be insignificant and α_4 should be significant in four performance measures. Table 7 reports the estimated results, though the estimated results of control variables are skipped. The coefficients of the interaction term between $D_{GOB} \times D_{LDC}$ ($:\alpha_5$) are insignificant in all regressions. Next, except for NPL, all the coefficients of non-political banks ($:\alpha_3$) are also insignificant. Last, the coefficients of political banks ($:\alpha_4$) are overwhelmingly significantly negative in terms of ROA, ROE, and NIM, supporting our hypothesis that the GOB effect comes mainly from the strong political interference. Consequently, our results show that political interference can explain the GOB effect regardless of whether the banks are from DCs or LDCs.

4.4. The election year

It is interesting to investigate whether or not there is a special timing in terms of government banks being asked to give political rents to politicians. Sapienza (2004), Dinç (2005), Khwaja and Mian (QJE 2005), and Micco et al. (2007) have shown that politicians can obtain more benefits during major elections; in turn, this situation leads to the underperformance of GOBs. Therefore, in this section, we examine whether or not the worst performance of political banks comes from the election factor or our political interference proxy.

Following the studies of Dinç (2005) and Micco et al. (2007), we create a dummy variable, $D_{Election}$, which takes the value of 1 if the years have mainly elections and 0 otherwise. Then we add $D_{Election}$ dummy as the new control variable into the Eq. (2).

$$\begin{aligned} \text{PERFORM} &= \alpha_1 + \alpha_2 D_{GOB} + \alpha_6 D_{Election} + \beta Z + \text{year and country dummies} + \varepsilon \\ \alpha_2 &= \alpha_3 + \alpha_4 D_{Political} \end{aligned} \quad (4)$$

Table 8 presents the estimated results regarding the influence of political interference on political and non-political banks after controlling for the election factor. First, the coefficients of $D_{Election}$ ($:\alpha_6$) are negative for ROA and ROE, and positive for NPL. Thus, the results are consistent with the literature that the underperformance of GOBs is pronounced during major elections. However, the evidence is very weak because all the coefficients of $D_{Election}$ ($:\alpha_6$) are insignificant.

Next, we test whether the underperformance of political banks still holds after controlling for the election factor. The coefficients of the interaction term $D_{GOB} \times D_{Political}$ ($:\alpha_4$) are highly significantly negative for all profit measures and insignificantly negative for asset quality, confirming that the political interference depresses the performance of GOBs. Thus, the *political interference hypothesis* still holds even after controlling for the election variable. Third, the coefficients of non-political banks ($:\alpha_3$) remain similar as those reported in our earlier estimation. This lends support to the *political interference hypothesis*, which states that the GOB effect of government banks would be minimized if we remove the political interference.

4.5. The level of corruption

Usually, in countries with high corruption levels, the performance of GOBs is typically worse than that of POBs (Sapienza, 2004; Dinç, 2005; Micco et al., 2007). Therefore, the different levels of underperformance of GOBs across developing and developed countries may originate from varying levels of corruption levels. Thus, in this section, we strive to show that the underperformance of political banks

²⁴ Our definitions of developed and developing countries are from the United Nations Development Programme (UNDP).

Table 8

The political interference hypothesis versus election.

Variable		ROA	ROE	NIM	NPL
<i>Panel A. GOB effect</i>					
Intercept	α_1	1.8279*** (0.0000)	13.1068*** (0.0000)	5.5540*** (0.0000)	7.7382*** (0.0000)
D_{GOB}	α_3	-0.0509 (0.6635)	-0.4719 (0.6876)	0.1945 (0.4647)	2.4957** (0.0237)
$D_{GOB} \times D_{Political}$	α_4	-0.3538* (0.0815)	-3.7950** (0.0290)	-1.1462*** (0.0009)	-0.7643 (0.4576)
$D_{Election}$	α_6	-0.0399 (0.6906)	-0.4086 (0.6758)	0.1939 (0.2964)	0.0853 (0.8136)
Bank Obs.		1259	1259	1259	796
Bank-year Obs.		4879	4876	4877	3018
<i>Control for</i>					
Control variables		Y	Y	Y	Y
Year		Y	Y	Y	Y
Country		Y	Y	Y	Y

Notes:

1. The econometric model is:

$$PERFORM = \alpha_1 + \alpha_2 D_{GOB} + \alpha_6 D_{Election} + \beta Z + \text{year and country dummies} + \varepsilon; \quad \alpha_2 = \alpha_3 + \alpha_4 D_{Political}$$

where PERFORM is proxied by ROA, ROE, NIM and NPL; D_{GOB} : dummy variable of GOB; $D_{Political}$: dummy variable of political banks; $D_{Election}$: dummy variable for mainly elections.

2. The sample covers from 2003 to 2007.

3. We do not report coefficients of Z and year and country dummies to save on space.

4. The errors are corrected for heteroskedasticity using the White–Huber estimators as well as the standard errors are clustered at the country level in the regression. P-values are reported in parentheses and superscripts ***, ** and * denotes significance at 1%, 5%, and 10% levels, respectively.

is not just due to the level of corruption but due to our political interference proxy as well. Also, we investigate whether the political interference is enhanced in high corrupted countries.

We create a new dummy variable, $D_{H-corrup}$, which takes the value of unity if the countries have high level of corruption and zero otherwise (Kaufmann et al., 2007). The high corruption level ($D_{H-corrup}$) is then substituted for the earlier development dummy variable (D_{LDC}) in Eq. (3). We test whether the coefficients of the interaction term $D_{GOB} \times D_{H-corrup}$ (α_5) and $D_{GOB} \times D_{Political}$ (α_4) are negative for profit measures and positive for asset quality. If α_4 is significant but not α_5 , the GOB effect is not affected by corruption but by our political interference proxy.

$$\begin{aligned} PERFORM &= \alpha_1 + \alpha_2 D_{GOB} + \beta Z + \text{year and country dummies} + \varepsilon \\ \alpha_2 &= \alpha_3 + \alpha_4 D_{Political} + \alpha_5 D_{H-corrup} \end{aligned} \quad (5)$$

Panel A of Table 9 presents the estimated results considering the impact of political interference for political and non-political banks after controlling for the level of corruption. Unsurprisingly, the new results are all similar to the results shown in Table 7. For example, the coefficients α_4 are highly significantly negative for all profit measures and insignificantly negative for asset quality, whereas the coefficients α_5 are all insignificant. These results support our hypothesis that the GOB effect is mainly from our political interference proxy. Also, the coefficients of non-political banks remain insignificant, suggesting that the GOB effect does not exist in non-political banks.

We next test whether the influences of political interference is enhanced in highly corrupt countries. We add the interaction terms $D_{Political}$ and $D_{H-corrup}$ into Eq. (5).

$$\begin{aligned} PERFORM &= \alpha_1 + \alpha_2 D_{GOB} + \beta Z + \text{year and country dummies} + \varepsilon \\ \alpha_2 &= \alpha_3 + \alpha_4 D_{Political} + \alpha_5 D_{H-corrup} + \alpha_7 D_{Political} \times D_{H-corrup} \end{aligned} \quad (6)$$

Table 9
Political interference hypothesis versus corruption.

Variable		ROA	ROE	NIM	NPL
<i>Panel A. Corruption</i>					
Intercept	α_1	1.8253*** (0.0000)	13.0114*** (0.0000)	5.5793*** (0.0000)	7.6903*** (0.0000)
D_{GOB}	α_3	0.0075 (0.9607)	-0.8743 (0.4524)	0.0920 (0.7447)	1.2024 (0.1299)
$D_{GOB} \times D_{Political}$	α_4	-0.3571* (0.0804)	-3.7981** (0.0296)	-1.1357*** (0.0009)	-0.5325 (0.5433)
$D_{GOB} \times D_{H-corrup}$	α_5	-0.0985 (0.5877)	0.6768 (0.7380)	0.1739 (0.6981)	2.0483 (0.2291)
Bank Obs.		1259	1259	1259	796
Bank-year Obs.		4879	4876	4877	3018
<i>Panel B. Corruption versus political banks</i>					
Intercept	α_1	1.8290*** (0.0000)	13.0850*** (0.0000)	5.5960*** (0.0000)	7.7023*** (0.0000)
D_{GOB}	α_3	-0.0416 (0.8040)	-1.8260 (0.1194)	-0.1238 (0.6546)	1.4493* (0.0609)
$D_{GOB} \times D_{Political}$	α_4	-0.1611 (0.5543)	0.0020 (0.9989)	-0.2777 (0.5728)	-1.2757 (0.1999)
$D_{GOB} \times D_{H-corrup}$	α_5	-0.0166 (0.9392)	2.2673 (0.3185)	0.5340 (0.2904)	1.6627 (0.3671)
$D_{GOB} \times D_{Political} \times D_{H-corrup}$	α_7	-0.3361 (0.3514)	-6.5188** (0.0224)	-1.4713** (0.0344)	1.3729 (0.3769)
Bank Obs.		1259	1259	1259	796
Bank-year Obs.		4879	4876	4877	3018
<i>Control for</i>					
Control variables		Y	Y	Y	Y
Year		Y	Y	Y	Y
Country		Y	Y	Y	Y

Notes:

1. Panel A: the econometric model is:

$$\text{PERFORM} = \alpha_1 + \alpha_2 D_{GOB} + \beta Z + \text{year and country dummies} + \varepsilon; \alpha_2 = \alpha_3 + \alpha_4 D_{Political} + \alpha_5 D_{H-corrup}$$

where PERFORM is proxied by ROA, ROE, NIM and NPL; D_{GOB} : dummy variable of GOB; $D_{Political}$: dummy variable of political banks; $D_{H-corrup}$: dummy variable, countries with high level of corruption.

2. Panel B: the econometric model is:

$$\text{PERFORM} = \alpha_1 + \alpha_2 D_{GOB} + \beta Z + \text{year and country dummies} + \varepsilon$$

$$\alpha_2 = \alpha_3 + \alpha_4 D_{Political} + \alpha_5 D_{H-corrup} + \alpha_7 D_{Political} \times D_{H-corrup}$$

3. The sample covers from 2003 to 2007.

4. We do not report coefficients of Z and year and country dummies to save on space.

5. The errors are corrected for heteroskedasticity using the White–Huber estimators as well as the standard errors are clustered at the country level in the regression. *P*-values are reported in parentheses and superscripts ***, ** and * denotes significance at 1%, 5%, and 10% levels, respectively.

We examine the coefficients of the interaction term $D_{GOB} \times D_{Political} \times D_{H-corrup}$ (α_7). If α_7 is significant, the impacts of political interference is stronger in highly corrupt countries. In Panel B of Table 9, the concerned coefficients are significantly negative for ROE and NIM, insignificantly negative for ROA, and insignificantly positive for NPL. Reverse evidence that the GOB effect is weakened in high corruption countries is not found. Thus, the results support our argument that the GOB effect is enhanced in high corruption countries.

Consequently, all the results show that the worst performance of GOBs can be derived from our political interference proxy, supporting our hypothesis that government banks experiencing political interference display the worst performance even if we control for the level of corruption.

5. Robustness testing

5.1. Alternative proxy of political interference: Merging a distressed bank

We also consider the GOBs that merging a distressed bank as the new proxy for political interference.²⁵ The new proxy of political banks describes the situation in which government banks are mandated to purchase a distressed bank. The government frequently requests that government banks take over distressed local banks to avoid bank runs or restore public confidence.²⁶

To identify political banks and their political interference, we first examine whether GOBs have conducted mergers and acquisitions (M&A).²⁷ We then check whether the M&As are government mandated by searching the authority websites, local newspapers, Wall Street Journal, SDC (Securities Data Company)²⁸ and Factiva database.²⁹ The checking process is difficult because not all M&A reports provide the motivations. Moreover, even when these motivations are reported, they are often vaguely described. Then, to complement the vague reports, we also examine whether the target banks are distressed by checking whether either ROA or net worth is negative. If either condition holds, the bank is classified as distressed. Nevertheless, we identify 40 distressed banks taken over by 33 political banks in 100 countries during 1993–2007. After identifying this new type of political banks, we compare their performance with private banks.

In order to test the political interference hypothesis by using this new political proxy, we first show the basic statistics of the target banks. Then we report the dynamic performance before and after GOBs undertaking the political interference. Last, we use panel regression analysis to test our hypothesis by employing the dynamic data.

Table 10 examines the basic statistics of the target banks. The minimum ROA, ROE, NIM, equities, and Net Income are -13.28% , -292.17% , -8.72% , -586 , and $-34,500$ million dollars. Consequently, distressed target banks display lower profit measure and equity. Next, we compare the dynamic performance before and after GOBs suffer political interference by using data from $t = -1$ to $t = 3$.³⁰ In Table 11, in LDCs, the performance differences are significantly negative, negative, and positive for ROA ($t = 0, 1, \text{ and } 3$), ROE ($t = 0 \text{ and } 1$), and NPL ($t = 0$), respectively, during the post-merger period. In contrast, the performance differences in DCs are only significantly positive for NPL.

Panel A of Table 12 repeats the works of Table 6 by employing the new political interference data. The coefficients $D_{GOB} \times D_{Political} (\alpha_4)$ are overwhelmingly significantly negative for ROA and ROE, thereby supporting the *political interference hypothesis* that once government banks undergo political interference, their financial performance deteriorates. However, the coefficient is insignificantly negative for NPL, showing that political banks do not have additional underperformance compared to non-political banks in terms of NPL.

In sum, these results are consistent with our hypothesis that political interference indeed depresses the performance of GOBs. In addition, the influences of political interference are more serious in LDCs than in DCs.

5.2. The construction of the political interference measure

To check the robustness of our hypothesis, we further modify our political interference proxy in two directions. We assume that if governments interfere in a GOB once, the political interference may always exist in that GOB. Thus, our $D_{Political}$ is modified as follows. One is that once those GOBs have been interfered with during 2003–2007, the value of $D_{Political}$ in this period is equal to one (Panel

²⁵ A distressed bank is meaning the net income or equity of bank is negative during the merged period.

²⁶ For example, in April 2009, Taiwan bank, a 100% shares owned by government, is asked by Minister of Finance to take over a distressed private-owned bank, ChinFon bank, when its net worth becomes negative.

²⁷ The data is collected from Bankscope data bank.

²⁸ SDC is a private-owned company selling the data of merger activity, securitization, private funds, etc.

²⁹ Factiva is a database that includes Dow Jones News, Reuters News, and Wall Street Journal, etc.

³⁰ In the present study, $t = 0$ denotes the year of acquisition and $t = 1, 2, 3$ denote the number of years post merger.

Table 10

Performance of target banks (distressed banks) before merger.

	Mean	Medium	Max	Min
<i>Panel A. Distressed bank</i>				
ROA (%)	-1.66	-0.22	6.29	-13.28
ROE (%)	-15.50	0.65	63.07	-292.17
NIM (%)	2.16	2.19	7.41	-8.72
NPL (%)	13.47	8.53	43.75	0.00
Equity (US \$million)	17001.00	47.00	600234.00	-586.00
Net Income (US \$million)	-1155.05	-0.01	409.90	-34500.00

Notes:

1. Distressed bank: the net income or equities of bank is negative during the merged period.
2. There are 40 distressed target banks, which are purchased by 33 political banks.

Table 11

Political banks before and after merger.

Performance measure (%)		$t = -1$	$t = 0$	$t = 1$	$t = 2$	$t = 3$
<i>Panel A. Developed country</i>						
ROA	PB	0.512	0.297	0.452	0.832	0.980
	POB	1.608	1.356	1.409	1.590	1.496
	Differ	-1.096	-1.059	-0.958	-0.758	-0.516
ROE	PB	8.910	11.617	7.388	8.230	19.320
	POB	9.518	10.780	11.045	12.825	9.634
	Differ	-0.608	0.837	-3.657	-4.595	9.686
NIM	PB	2.937	2.645	2.493	2.676	2.680
	POB	2.794	2.371	2.434	2.663	2.302
	Differ	0.143	0.274	0.059	0.013	0.379
NPL	PB	10.523	11.833	11.570	11.515	11.158
	POB	3.459	3.866	3.940	4.016	3.215
	Differ	7.064**	7.966**	7.630**	7.500***	7.942***
<i>Panel B. Developing country</i>						
ROA	PB	0.684	0.525	0.300	0.769	0.410
	POB	1.034	1.084	1.113	1.179	1.185
	Differ	-0.350	-0.559**	-0.813**	-0.411	-0.775*
ROE	PB	6.459	3.972	3.280	9.347	7.970
	POB	11.813	9.710	12.926	11.402	13.951
	Differ	-5.355	-5.738*	-9.646**	-2.056	-5.981
NIM	PB	3.446	3.876	3.705	3.522	3.805
	POB	4.376	4.207	4.242	4.148	4.270
	Differ	-0.930*	-0.331	-0.537	-0.626	-0.465
NPL	PB	15.969	16.924	14.104	8.926	8.941
	POB	10.176	9.783	10.697	8.114	7.997
	Differ	5.793**	7.141**	3.407	0.812	0.944

Notes:

1. $t = 0$ denotes the year of merger, and $t = 1, 2, 3$ denote the number of years post the merger.
2. Numbers here are average of the variables during the sample periods.
3. PB: political bank, POB: private-owned banks.
4. Differ = Performance of PB - Performance of POB.
5. Superscripts ***, **, and * denote the significance at the 1%, 5% and 10% levels, respectively.

B of Table 12). The other is similar to the first one, but the whole period from 1993 to 2007 is used (Panel C of Table 12).

Panels B and C of Table 12 report the estimated results, all of which are similar to the results in Table 6. For instance, the coefficients of political banks (α_4) are significantly negative for ROA, ROE, and NIM in both Panels B and C, thus confirming our *political interference hypothesis*.

Table 12
Robust testing I: testing the political interference hypothesis.

Variable		ROA	ROE	NIM	NPL
<i>Panel A. Alternative proxy of political interference: Merging a distressed bank</i>					
Intercept	α_1	0.6196	7.7857	1.6781***	17.7248***
D_{GOB}	α_3	-0.2836**	-1.3522	-0.8537***	1.9118**
$D_{GOB} \times D_{Political}$	α_4	-0.5281***	-4.1535*	0.6422***	-0.2058
<i>Panel B. Different construction of the political interference measure (I)</i>					
Intercept	α_1	1.6719***	15.9534***	5.5149***	7.9600***
D_{GOB}	α_3	0.0019	-2.0221	0.1836	2.7518**
$D_{GOB} \times D_{Political}$	α_4	-0.3431*	-2.6831	-1.0088***	-1.2087
<i>Panel C. Different construction of the political interference measure (II)</i>					
Intercept	α_1	2.2979***	19.0775***	8.2050***	9.6562***
D_{GOB}	α_3	-0.0684	-1.9811**	-0.0337	1.4780*
$D_{GOB} \times D_{Political}$	α_4	-0.6552***	-8.5242***	-1.1336**	0.6410
<i>Panel D. Using no-policy banks as benchmark</i>					
Intercept	α_1	1.1899**	12.5477**	3.6538***	7.9895***
$D_{Political}$	α_4	-0.3650	-3.3817**	-0.9221***	-0.04649
Control for					
Control variables		Y	Y	Y	Y
Year		Y	Y	Y	Y
Country		Y	Y	Y	Y

Notes:

1. The econometric model is:

$$\text{PERFORM} = \alpha_1 + \alpha_2 D_{GOB} + \beta Z + \text{year and country dummies} + \varepsilon; \quad \alpha_2 = \alpha_3 + \alpha_4 D_{Political}$$

where PERFORM is proxied by ROA, ROE, NIM and NPL; D_{GOB} : dummy variable of GOB; $D_{Political}$: dummy variable of political banks.

2. We do not report coefficients of year and country dummies to save on space.

3. The errors are corrected for heteroskedasticity using the White–Huber estimators as well as the standard errors are clustered at the country level in the regression. *P*-values are reported in parentheses and superscripts ***, ** and * denotes significance at 1%, 5%, and 10% levels, respectively.

5.3. Using non-political banks as benchmark

Our investigation of the GOB effect aims to compare the performance of political banks and private banks, which is also the main focus in the literature. To investigate the influence of political interference further, it is interesting to compare political banks with non-political banks.

We exclude private banks from our samples and use non-political banks as the extra benchmark. When considering this new benchmark, definitions of our dummy variables, $D_{Political}$, change slightly: they are equal to 1 when the GOBs undergo political interference, and 0 when they are non-political banks.

Panel D of Table 12 presents the new estimated results using non-political banks as the benchmark in the regression. These new results are similar to our earlier results that featured private banks as the benchmark (see Table 6). In Panel A, the coefficients of $D_{GOB} \times D_{Political}$ (α_4) for ROE and NIM are overwhelmingly and significantly negative, suggesting that political banks negatively affect profit, confirming the *political interference hypothesis*. Hence, our conclusions are robust compared with other benchmarks used.

5.4. Percentage ownership of 50%

La Porta et al. (2002) and Dinç (2005) used 20% state share as the threshold for determining government ownership, whereas Micco et al. (2007) used 50% government ownership as the threshold for identifying government banks. Hence defining government banks may also affect our empirical results. To further confirm that our *political interference hypothesis* is not just due to the GOB samples we chose, we adopt 50% government ownership as the threshold for identifying government banks to test our hypothesis.

Table 13
Robust testing II: testing the political interference hypothesis.

Variable		ROA	ROE	NIM	NPL
<i>Panel A. GOB owns 50% shares of ownership</i>					
Intercept	α_1	1.8709***	13.0472***	6.0021***	7.9741***
D_{GOB}	α_3	-0.2120	0.0752	0.0509	2.9087*
$D_{GOB} \times D_{Political}$	α_4	-0.5058***	-7.4630***	-1.1446**	-1.9524
<i>Panel B. Exclude countries without election</i>					
Intercept	α_1	1.9319***	13.7119***	6.4324***	8.0189***
D_{GOB}	α_3	0.0306	-0.2476	0.1536	2.0526*
$D_{GOB} \times D_{Political}$	α_4	-0.3748*	-3.1896*	-1.0174***	-0.7548
<i>Panel C. Country governance</i>					
Intercept	α_1	1.8213***	13.0399***	5.5866***	7.8118***
D_{GOB}	α_3	-0.0574	-2.1792**	0.0947	1.4250*
$D_{GOB} \times D_{Political}$	α_4	-0.3549*	-3.7248**	-1.1340***	-0.5574
$D_{GOB} \times D_{WGC}$	α_5	0.0110	2.9559	0.1743	1.6969
<i>Control for</i>					
Control variables		Y	Y	Y	Y
Year		Y	Y	Y	Y
Country		Y	Y	Y	Y

Notes:

1. Panels A and B: the econometric model is:

$$PERFORM = \alpha_1 + \alpha_2 D_{GOB} + \beta Z + \text{year and country dummies} + \varepsilon; \alpha_2 = \alpha_3 + \alpha_4 D_{Political} + \alpha_5 D_{H-corrupt}$$

where PERFORM is proxied by ROA, ROE, NIM and NPL; D_{GOB} : dummy variable of GOB; $D_{Political}$: dummy variable of political banks.

2. Panel C: the econometric model is:

$$PERFORM = \alpha_1 + \alpha_2 D_{GOB} + \beta Z + \text{year and country dummies} + \varepsilon; \alpha_2 = \alpha_3 + \alpha_4 D_{Political} + \alpha_5 D_{WGC}$$

where D_{WGC} : dummy variable, countries with weak levels of country governance.

3. The sample covers from 2003 to 2007.

4. We do not report coefficients of Z and year and country dummies to save on space.

5. The errors are corrected for heteroskedasticity using the White–Huber estimators as well as the standard errors are clustered at the country level in the regression. *P*-values are reported in parentheses and superscripts ***, ** and * denotes significance at 1%, 5%, and 10% levels, respectively.

Panel A of Table 13 repeats the works of Table 6 by employing the 50% minimum government share threshold to examine the robustness of our results. The coefficients of $D_{GOB} \times D_{Political}$ ($:\alpha_4$) for three profit measures are all overwhelmingly and significantly negative, while the coefficient is insignificant for NPL. Thus, the results using 50% minimum government ownership remain the same as when using 20% government share, confirming the *political interference hypothesis* again.

5.5. Excluding countries without elections

Some countries did not have elections from 2003 to 2007, which may bias the results if they are included in our sample. Thus, we restrict the samples to countries which had at least one election from 2003 to 2007, which exclude 21 GOBs and six countries from our sample. However, the total number of political banks is not affected. Panel B of Table 13 reports the estimated results. The coefficients of political banks ($:\alpha_4$) are all significantly negative for all three profit measures, supporting our hypothesis again.

5.6. Country governance

Recently, Kaufmann et al. (2007) updated their Worldwide Governance Indicators (WGI), which involves six dimensions of governance that cover 212 countries from 1996 and 2006. Adopting this governance index, we attempt to show that our hypothesis is not just due to the level of country

governance. Hence, we classify the sample countries into strong and weak governance countries based on the criteria we have set out. We then investigate whether or not the *political interference hypothesis* still holds.

In consequence, we create a governance dummy variables, D_{WGC} , that have the value of one if the countries have weak levels of country governance and zero otherwise. Then, we use governance dummy to replace development dummies as the new classification of countries.

Panel C of Table 13 repeats the works of Table 9 by employing the governance dummy as the new classification of countries to test the robustness of our results. Notably, the coefficients of interaction terms $D_{GOB} \times D_{Political} (: \alpha_A)$ are significantly negative for ROE and NIM, and insignificantly positive for ROA and NPL. Even if we change the country classification, the results would still be the same as those in Table 9. Thus, our results presented in this study remain unchanged when classifying countries into strong and weak governance countries, respectively.

6. Conclusion

This study investigates why GOBs underperform private-owned banks, the phenomenon referred to as the GOB effect. We propose a *political interference hypothesis* to explain why GOBs underperform private banks, where the political interference is defined as the situation in which the executives of government banks are replaced within 12 months after major elections. First, this study suggests that once government banks undergo political interference, their financial performance deteriorates. Next, the impact of political interference is much larger in developing countries than in developed countries. For example, in developed countries, government banks do not experience much political interference, resulting in the fact that the performance of government banks generally is relatively unaffected. However, in developing countries, government banks experience much political interference, severely deteriorating their performance. Finally, we show that the GOB effect of government banks will be minimized if we remove the political interference.

Detailed results of this study are summarized as follows.

First, our broad sample confirms the GOB effect, which frequently suggests that government banks underperform private banks. Next, we divide the sample into developing and developed countries. Developing countries show similar results when used as the whole sample by exhibiting the GOB effect for ROA, NIM and NPL. However, in developed countries, government banks underperform private banks for ROE and NPL, whereas government banks outperform private banks for NIM. Thus, we confirm that the GOB effect exists in developing countries but weakly exist in developed countries, consistent with the literature.

Third, in developing countries, political banks exhibit clear underperformance in terms of ROA, ROE, NIM and NPL; however, underperformances only occur for ROA and ROE in developed countries. Accordingly, the results support the *political interference hypothesis* that once government banks experience political interference, their financial performance deteriorates. Consequently, we suggest that political considerations depress government bank performance, and that the impact of these are much pronounced in developing countries than in developed countries.

Fourth, if the GOB effect comes from political interference, we expect that non-political banks should perform equally well with private banks. The results display that non-political banks perform similarly with private banks in terms of ROA, ROE and NIM. Thus, the results are consistent with the *political interference hypothesis*, which states that the GOB effect of government banks would be minimized if we remove the political interference.

Fifth, we further consider the impact of political interference on political and non-political banks after controlling for the level of corruption. Based on the results, political banks exhibit clear underperformance in terms of ROA, ROE and NIM, implying that the underperformance of political banks is not just due to the level of corruption but it is due to our political interference proxy as well.

Sixth, we also consider an alternative proxy of political interference when a government bank merges with a distressed bank. We find that the GOB effect is slightly more pronounced in political banks, a result that is consistent with our hypothesis. Furthermore, the new results again confirm that political interference causes the underperformance of government banks.

Finally, we also conduct many testing measures to ensure the robustness of our results. These tests include the new construction of political interference proxy, the new benchmark for non-political banks, the different percentage shares of government-ownership to identify government banks, the new classification of countries based on country governance, and exclude countries without any elections. All the results of our robustness tests do not change our conclusion. Hence, our proposed *political interference hypothesis* is evidently confirmed.

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