

Ashraf, Badar Nadeem; Arshad, Sidra; Yan, Liang

Article

Do better political institutions help in reducing political pressure on state-owned banks? Evidence from developing countries

Journal of Risk and Financial Management

Provided in Cooperation with:

MDPI – Multidisciplinary Digital Publishing Institute, Basel

Suggested Citation: Ashraf, Badar Nadeem; Arshad, Sidra; Yan, Liang (2018) : Do better political institutions help in reducing political pressure on state-owned banks? Evidence from developing countries, Journal of Risk and Financial Management, ISSN 1911-8074, MDPI, Basel, Vol. 11, Iss. 3, pp. 1-10,
<https://doi.org/10.3390/jrfm11030043>

This Version is available at:

<https://hdl.handle.net/10419/238886>

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.



<https://creativecommons.org/licenses/by/4.0/>



Article

Do Better Political Institutions Help in Reducing Political Pressure on State-Owned Banks? Evidence from Developing Countries

Badar Nadeem Ashraf ^{1,2,*} , Sidra Arshad ³ and Liang Yan ¹

¹ School of Economics and Management, China University of Geosciences Wuhan, Wuhan 430074, China; ylyzb@cug.edu.cn

² International School, East China Jiao Tong University, Nanchang 330013, China

³ School of Public Administration, China University of Geosciences Wuhan, Wuhan 430074, China; sidra.bnadeem@gmail.com

* Correspondence: badarfcm@gmail.com; Tel.: +86-157-976-93435

Received: 13 July 2018; Accepted: 27 July 2018; Published: 1 August 2018



Abstract: This study examines whether state-owned banks face political pressure and whether the improvement in political institutions alleviates this pressure. The theory of political benefits argues that politicians use state-owned banks for political purposes such as obtaining and maintaining political support. We reviewed extant empirical research and found that the existing evidence is mixed; some studies support while others reject the theory. In this backdrop, we analyzed a sample of 185 state-owned banks from 51 developing countries over the period 1998–2012 and provide renewed evidence supporting the theory. Specifically, we found that state-owned banks face significant political pressure in developing countries; that is, they lend more and earn less in election years. Next, we observed that the political pressure is prevalent only in the countries with weak political institutions. Strong political institutions in the form of higher constraints on policy change decisions of incumbent government and higher democratic accountability are helpful in eliminating political pressure on state-owned banks in developing countries.

Keywords: political institutions; state-owned banks; elections; political pressure; bank lending; bank profitability

JEL Classification: G18; G21; G28; P16

1. Introduction

Country-level institutions have long been recognized as having a substantial impact on economic and financial development (see, for example, [Hayek 1967](#) and [North 1990](#)). In this direction, “Political institutions view” of financial development advocates the importance of political institutions in shaping the financial sector (see, for example, [Roe 2006](#); [Keefer 2007](#) and [Roe and Siegel 2011](#)). Building on political institutions view, recent studies have related political institutions to the cost of debt financing ([Qi et al. 2010](#)), the implied cost of equity capital ([Boubakri et al. 2014](#)), and risk-taking behavior ([Boubakri et al. 2013](#); [Ashraf 2017](#)) of firms/banks. Significantly absent from this literature is whether or how political institutions affect lending behavior and performance of state-owned banks. This study aims to address this critical research gap.

State-owned banks pursue a social goal; however, due to state ownership, these financial institutions are also vulnerable to political influence. Two competing theories have been developed to explain the economic role of state-owned banks: First, the theory of social welfare goal argues that state-owned banks exist to counter market failures and finance socially important projects. Second,

the theory of political benefits argues that state-owned banks face political pressure in that politicians use them for political purposes, such as obtaining and maintaining political support. In this study, we contribute to the theory of political benefits of state-owned banks. Using a cross-country dataset of state-owned banks from developing countries, we provide new and cleaner empirical evidence that state-owned banks have significant political pressure. Specifically, we found that state-owned banks lend more and earn less during election years.

Next, we examined whether strong political institutions reduce the political pressure on state-owned banks. [North \(1981\)](#) defined institutions as “a set of rules, compliance procedures, and moral and ethical behavioral norms designed to constrain the behavior of individuals in the interests of maximizing the wealth or utility of principals” (pp. 201–202). More narrowly, political institutions can be defined as “formal arrangements for aggregating individuals and regulating their behavior through the use of explicit rules and decision processes enforced by an actor or a set of actors formally recognized as possessing such power” ([Rothstein 1996](#)). Thus, political institutions are a kind of repetitive behavior that influences political processes or outcomes. [Glaeser et al. \(2004\)](#) argued that a good measure of political institutions should capture ex-ante constraints on the government behavior rather than ex-post government policy choice or performance. Since politicians influence state-owned banks to extend politically motivated loans ([Khwaja and Mian 2005](#); [Cole 2009](#)), political institutions which can constrain politicians’ decision making powers are likely to decrease political influence on state-owned banks.

For analysis, we used a sample of 185 state-owned banks from 51 developing countries over the period 1998–2012. We first examined political pressure on state-owned banks by investigating whether state-owned banks lend more during the year of political elections. Lending growth was measured by year-on-year growth in gross loans of a bank. We regressed loan growth variable on election dummy variable after including bank- and country-level control variables. We found that loan growth of state-owned banks is significantly higher during election years. Next, we examined whether higher lending by state-owned banks during election years is due to political factors but not due to other demand factors. For this purpose, we regressed net interest income to total assets ratios on election dummy variable after including bank- and country-level control variables. We found that net interest income of state-owned banks is significantly lower during election years, suggesting that banks have extended underpriced loans during elections.

After confirming political pressure on state-owned banks, we examined whether the strength of political institutions has a significant impact on politically motivated lending behavior and performance of state-owned banks. We measured political institutions with political constraints index of [Henisz \(2000\)](#). This index measures political institutions by measuring the constraints which a policy change decision by any one branch of government can face from other branches of the government. If the political institutions have a role, then the political pressure on lending behavior and performance of state-owned banks should appear in countries with weak political institutions but not in those with strong political institutions. Our results support this conjecture. When political institutions are strong, the political pressure on lending behavior and performance of state-owned banks disappears.

This study contributes to existing literature in several ways: First, it contributes to recent debate which discusses the theories of political benefits of state-owned banks. Some existing studies find that state-owned banks have political pressure and either lend more or earn less during election years ([Dinç 2005](#); [Micco et al. 2007](#); [Cole 2009](#)). On the contrary, some other studies report that state-owned banks are not affected by political pressure ([Baum et al. 2010](#); [Sutaryo et al. 2016](#)). Using a cross-country dataset of 185 state-owned banks, we provide new empirical evidence to this debate. Further, all existing studies include private and state-owned banks in their samples and compare lending and performance of state-owned banks with their private counterparts to examine political influence. In contrast, we included only state-owned banks in our sample and compared lending and performance of state-owned banks in election years with their lending and performance in non-election

years. Our empirical strategy is likely to provide cleaner and more robust evidence to the theory of political benefits.

Second, it contributes to the literature which suggests that better political institutions are a key determinant of financial development of a country (Bordo and Rousseau 2006; Roe 2006; Keefer 2007; Girma and Shortland 2008; Quintyn and Verdier 2010; Roe and Siegel 2011). We identified that political pressure on state-owned banks is one channel through which political institutions can improve overall financial development. Specifically, we found that better political institutions reduce this political pressure on state-owned banks and result in better performance of these financial institutions.

Third, it contributes to recent literature which reports that cross-country heterogeneity in formal and informal institutions, such as banking regulations, legal institutions, political institutions and national culture among others, are important for different practices of banks especially for risk-taking behavior and profitability (Houston et al. 2010; Kanagaretnam et al. 2014; Zheng and Ashraf 2014; Ashraf and Zheng 2015; Ashraf et al. 2016; Ashraf and Arshad 2017; Ashraf 2018). In this regard, we specifically complement the studies which find that institutional factors such as financial reforms (Chen and Liu 2013) and media monitoring (Ho et al. 2016) help in eliminating political pressure on state-owned banks.

The rest of this paper is organized as follows: Section 2 briefly reviews related literature. Section 3 describes data. Section 4 explains the methodology and variable definitions. Section 5 reports empirical results. Section 6 concludes the paper and draws important implications.

2. Literature Review and Research Hypotheses

This study largely builds on three strands of recent literature: (1) the literature which examines the theories of political benefits of state-owned banks; (2) the studies which suggest that better political institutions are a key determinant to foster the financial development of a country; and (3) the literature which reports that country-level formal and informal institutions are important for different practices of banks.

For the first strand of literature, theories of political benefits argue that politicians use state-owned banks for political purposes. Specifically, these studies report that politicians use lending of state-owned banks for election purposes in developing countries and find that different practices of state-owned banks significantly differ from other domestic private- or foreign-owned banks during election years. For example, Dinç (2005) analyzed the impact of ownership on bank lending using a cross-country dataset of state-owned and private banks over the period 1994–2000. He found that state-owned banks in emerging countries (but not in developed countries) increase their lending in election years relative to private banks. Micco et al. (2007) analyzed the impact of ownership on bank performance using a cross-country dataset of state-owned and private banks over the period 1995–2002. They reported that state-owned banks have lower performance (i.e., lower profitability and higher overhead costs) than private and foreign banks and this gap widens during election years. Cole (2009) used the data from Indian banks over the period 1992–1999 and showed that agricultural credit by state-owned banks is higher in election years as compared to the credit by private banks. Though not specifically focused on political pressure during election years, Shen and Lin (2012) suggested a political interference hypothesis and found that the performance of those state-owned banks deteriorates, which implies political interference. They measured political interference as replacement of bank executives by the newly elected government within first 12 months of its tenure.

Despite this literature, some recent studies either find only partial or no evidence supporting political influence on state-owned banks. For example, Jackowicz et al. (2013) used data from 11 Central European countries over the period 1995–2008 and found only partial support for political pressure on state-owned banks. Specifically, they concluded that state-owned banks have significantly lower net interest income ratios during the years of parliamentary elections. However, they documented that the lending growth of state-owned banks is not affected by the political cycle in Central European countries. Baum et al. (2010) used bank-level data of all Turkish banks and found that, on average, state-owned

banks underperform both domestic and foreign-owned private banks. However, they found that government-owned banks' behavior does not meaningfully differ from that of either domestic or foreign private banks during election years. [Chen and Liu \(2013\)](#) considered Taiwanese banks over the period from 1994 to 2009 and found that the performance of state-owned banks is not affected by election years. Similarly in another recent study, [Sutaryo et al. \(2016\)](#) used data from all Indonesian banks and found that government ownership of banks has no impact on lending behavior especially during the election years.

These inconclusive findings for political influence on state-owned banks warrant further research on this topic. We contribute to this literature by providing new evidence. We depart from existing literature in several ways to provide cleaner and more robust empirical evidence. First, different from above studies, we kept data of state-owned banks only in our sample. Using the data of state-owned banks only would provide cleaner analysis of political influence on these financial institutions. In a combined sample, state-owned banks may have lower performance than private banks. However, the reason for this underperformance is not necessarily political pressure. Evidence is available that state-owned banks underperform as compared to private banks due to social outreach commitments ([Banerjee and Velamuri 2015](#)). State-owned banks extend loans to disadvantaged groups of society at discounted interest rates under priority sector lending programs. They are also required to open branches in remote rural areas for financial outreach and inclusion, adding to their overhead costs and lowering profitability.

We compare lending and performance of state-owned banks in election years with their lending and performance in non-election years. Second, the period of analysis (i.e., 1998–2012) is longer and more recent. Third, different from existing studies which either focus on lending behavior or performance, we focus on both lending behavior and performance of state-owned banks in this study. Higher lending of state-owned banks in an election year might be due to other factors such as higher demand for loans. If state-owned banks' lending is politically motivated, then we expect that they would extend underpriced loans (i.e., charge lower interest rates) which would result in lower performance. Thus, higher lending and lower performance should coincide in an election year and need to be investigated together to support the theory of political benefits.

For the second strand of studies, recent literature argues that better political institutions are an important determinant of financial development ([Roe 2006](#); [Keefer 2007](#); [Roe and Siegel 2011](#)). For example, [Roe \(2006\)](#) found that political history of a country is important in explaining later financial development of that country. [Keefer \(2007\)](#) concluded that the impact of political institutions on financial development is higher than the impact of legal institutions. Similarly, [Roe and Siegel \(2011\)](#) reported that a country which has a stable political system is more likely to be financially developed. They concluded that political stability should be included as an important determinant of financial development. Consistent with this politics and financial development literature, recent macro-level studies report that stable political regimes and more restrictions on political power ([Bordo and Rousseau 2006](#)), a country's democratic characteristics ([Girma and Shortland 2008](#)), and political accountability ([Quintyn and Verdier 2010](#)) are robust predictors of financial development. In this study, we build on this political institutions view and propose to examine the impact of political institutions on lending behavior and performance of state-owned banks during election years. We expect that better political institutions which can constrain politicians' decision making powers are likely to decrease political influence on state-owned banks.

For the third strand of literature, several recent studies have found that country-level institutions, such as legal and political institutions and national culture, are important for different practices of banks. For legal institutions, [Houston et al. \(2010\)](#) found that banks in better creditor rights countries take more risk. [Ashraf and Zheng \(2015\)](#) concluded that banks pay higher dividends in countries with strong shareholder rights and weak creditor rights. For national culture, [Kanagaretnam et al. \(2014\)](#), [Ashraf et al. \(2016\)](#) and [Ashraf and Arshad \(2017\)](#) reported that bank risk-taking is higher in countries with cultural values of low uncertainty avoidance, low power distance and high individualism. In

another study, [Zheng and Ashraf \(2014\)](#) found that banks pay higher dividends in countries with low uncertainty avoidance, low long-term orientation and high masculinity cultural values. For political institutions, [Ashraf \(2017\)](#) found that strong political institutions, in the form of higher constraints on policy change decisions, stimulate higher bank risk-taking behavior. In this study, we examine the impact of political institutions on the relationship between political pressure and performance of state-owned banks and contribute to this literature. In this regard, our study is related to the study by [Chen and Liu \(2013\)](#), who found that successful financial reforms eliminated political pressure on Taiwanese state-owned banks. [Chen et al. \(2016\)](#) showed that state-owned banks help in recovering from a financial crisis by increasing the loans without sacrificing the performance. However, this happens only in countries with a lower level of corruption. Similarly, [Ho et al. \(2016\)](#) found that media monitoring eliminates lending corruption in state-owned banks, and they do not underperform the private banks in countries with strong media monitoring.

3. Data

Balance sheet and income statement accounting data for all state-owned commercial banks¹ over the period from 1998 to 2012 was downloaded from Bankscope database. Bankscope database reports a bank as state-owned if it is mainly controlled by any public authority, a state of a country or government itself. Due to financial sector reforms, some state-owned banks might have been privatized. However, we considered only those state-owned banks whose ownership did not change over the sample period. Keeping the ownership constant would offer the advantage to clearly identify the political effects and isolate the effects that might be due to ownership changes.

Since the main objective of our study is to examine the impact of political institutions on the relationship between elections and lending behavior of state-owned banks in developing countries, we applied several filters to get a suitable dataset for this objective. First, we deleted data of all state-owned banks from developed countries. To do so, we followed [Micco et al. \(2007\)](#) and used World Bank classification where all world countries are classified into two income categories: developed and developing countries. Second, since legislator elections are normally held every three or four years in different countries, we deleted banks having three or fewer valid observations over the sample period to capture the impact of elections on bank variables better. Third, we also deleted banks of those countries where legislative elections did not occur over the sample period such as China and Saudi Arabia among others.

The final dataset is an unbalanced panel of 185 banks having 1861 observations from 51 countries over the period 1998–2012. India has the most (24), while Armenia, Azerbaijan, Bangladesh, Bolivia, Botswana, Czech Republic, Dominican Republic, Estonia, Jordan, Latvia, Morocco, Mozambique, Poland, Slovakia, Surinam, Trinidad and Tobago, and Ukraine all have one state-owned bank(s), with other countries having between 1 and 24 banks, in the sample. We winsorized all bank-level variables at one and ninety-nine percentile levels to eliminate outlier effects.

Table 1 reports sample distribution including countries (Column 2) and the number of bank observations from each country (Column 3). Table 1 also reports national level mean values of all main variables.

¹ As the business model of full-fledged Islamic banks is different, we do not include these banks in sample.

Table 1. Sample distribution.

Sr. No.	Country	Observations	Loan Growth	Interest Income	Election	Bank Size	Bank Capital	Non-Interest Income	Charter Value	GDP Per Capita	GDP Growth	Inflation	Financial Development	Law and Order
1	ALGERIA	42	0.05	2.44	0.24	15.47	10.06	27.87	62.47	8.08	0.03	0.04	0.12	2.69
2	ANGOLA	27	0.11	3.98	0.11	13.68	10.46	57.17	63.73	7.48	0.09	0.80	0.10	2.94
3	ARGENTINA	131	0.05	3.62	0.50	13.71	10.10	64.09	46.22	8.79	0.05	0.09	0.15	2.81
4	ARMENIA	9	0.24	5.38	0.22	12.35	20.24	36.54	50.59	7.86	0.06	0.05	0.21	3.00
5	AZERBAIJAN	14	0.22	3.62	0.14	14.29	6.64	49.65	66.16	7.62	0.13	0.06	0.12	3.73
6	BAHRAIN	41	0.03	1.59	0.27	16.04	10.34	30.60	43.59	9.60	0.06	0.02	0.60	5.00
7	BANGLADESH	14	0.15	2.88	0.14	12.90	7.53	44.89	79.08	6.14	0.06	0.07	0.36	2.09
8	BELARUS	47	0.19	4.92	0.23	13.57	16.61	55.06	59.20	8.26	0.07	0.37	0.25	3.96
9	BOLIVIA	14	0.02	4.18	0.21	13.10	7.33	50.78	66.30	7.17	0.04	0.05	0.45	2.89
10	BOTSWANA	5	0.05	2.85	0.20	11.28	9.69	27.23	89.21	8.62	0.05	0.09	0.21	3.81
11	BRAZIL	97	0.08	5.90	0.22	14.38	16.49	32.22	33.08	8.68	0.03	0.06	0.43	2.02
12	COSTA RICA	30	0.10	5.10	0.23	14.55	9.93	27.93	70.85	8.70	0.05	0.09	0.41	3.67
13	CROATIA	36	0.07	2.76	0.28	13.85	12.24	32.78	57.94	9.36	0.01	0.03	0.61	4.77
14	CZECH REPUBLIC	6	0.15	2.49	0.33	14.76	10.65	23.51	58.38	9.87	0.01	0.03	0.52	5.00
15	DOMINICAN REPUBL	4	0.04	5.31	0.25	15.54	7.10	27.76	51.57	8.57	0.05	0.05	0.23	2.50
16	EGYPT	60	0.02	1.75	0.38	15.12	8.67	46.71	79.27	7.50	0.05	0.08	0.45	3.71
17	ESTONIA	14	0.10	2.65	0.29	11.23	7.18	43.77	82.92	9.17	0.04	0.04	0.70	4.00
18	ETHIOPIA	26	0.01	2.42	0.23	13.78	7.43	49.38	69.15	5.35	0.08	0.12	0.21	4.79
19	HUNGARY	18	0.08	2.67	0.22	15.61	7.49	36.86	50.60	9.22	0.01	0.06	0.54	4.13
20	INDIA	283	0.11	2.67	0.20	16.51	5.22	29.61	82.09	6.77	0.07	0.07	0.41	4.00
21	INDONESIA	142	0.10	4.36	0.18	14.93	10.96	21.91	74.85	7.38	0.05	0.08	0.26	2.68
22	ISLAMIC REPUBLIC	54	0.15	3.13	0.24	15.71	20.51	33.74	40.33	7.99	0.05	0.16	0.26	4.17
23	JORDAN	14	0.05	2.98	0.21	13.37	12.27	37.88	59.61	7.92	0.05	0.04	0.77	4.00
24	KAZAKHSTAN	66	0.32	3.93	0.26	13.72	13.53	41.78	51.69	8.43	0.08	0.09	0.35	3.94
25	KENYA	18	0.06	5.27	0.11	11.69	11.21	20.91	85.09	6.35	0.04	0.10	0.30	2.03
26	LATVIA	9	0.09	2.56	0.33	13.99	10.48	31.78	35.09	9.26	0.03	0.06	0.82	5.00
27	LIBYA	12	0.01	1.80	0.00	15.50	8.78	26.01	65.33	9.18	0.06	0.04	0.08	4.00
28	MALAYSIA	19	0.15	1.22	0.16	14.85	7.82	21.31	70.21	8.94	0.05	0.03	1.08	3.98
29	MEXICO	28	0.01	3.56	0.39	13.24	16.28	47.37	56.06	8.95	0.02	0.05	0.21	2.20
30	MOROCCO	14	0.06	3.07	0.21	15.29	5.07	10.40	62.56	7.61	0.04	0.02	0.55	5.27
31	MOZAMBIQUE	4	0.20	4.64	0.25	14.09	7.78	38.77	76.10	6.07	0.07	0.09	0.24	3.00
32	PAKISTAN	33	0.07	2.69	0.15	14.04	10.80	37.82	73.61	6.65	0.04	0.09	0.24	3.12
33	PANAMA	35	0.05	3.04	0.14	14.37	12.68	20.79	70.57	8.62	0.07	0.03	0.91	3.00
34	PHILIPPINES	23	0.08	3.19	0.26	14.85	9.38	26.68	75.14	7.53	0.05	0.05	0.30	2.48
35	POLAND	14	0.02	2.18	0.29	13.94	8.13	51.25	59.92	8.99	0.04	0.04	0.38	4.31
36	ROMANIA	27	0.07	4.83	0.26	14.53	10.88	30.37	82.53	8.35	0.04	0.17	0.26	4.00

Table 1. *Cont.*

Sr. No.	Country	Observations	Loan Growth	Interest Income	Election	Bank Size	Bank Capital	Non-Interest Income	Charter Value	GDP Per Capita	GDP Growth	Inflation	Financial Development	Law and Order
37	RUSSIAN FEDERATI	194	0.21	4.83	0.28	13.49	20.11	50.86	28.67	9.03	0.04	0.11	0.39	3.88
38	SLOVAKIA	14	0.08	2.93	0.29	14.14	10.09	31.47	77.85	9.29	0.04	0.05	0.40	4.11
39	SOUTH AFRICA	20	0.07	4.33	0.15	14.01	29.37	48.39	58.85	8.72	0.03	0.06	1.46	2.50
40	SUDAN	18	0.19	2.25	0.17	13.16	10.76	63.47	43.42	6.57	0.06	0.10	0.09	2.42
41	SURINAME	14	0.09	3.88	0.21	12.06	5.62	46.12	86.96	8.31	0.04	0.23	0.19	3.00
42	THAILAND	28	0.06	1.52	0.29	16.00	4.87	27.82	73.40	8.02	0.04	0.02	1.14	3.25
43	TRINIDAD AND TOB	11	0.07	4.39	0.36	14.22	17.03	24.90	56.40	9.24	0.06	0.06	0.38	2.95
44	TUNISIA	20	−0.01	1.69	0.30	12.12	17.88	45.92	53.97	8.15	0.04	0.04	0.63	4.96
45	TURKEY	26	0.15	4.65	0.27	16.96	10.29	22.81	68.27	9.17	0.04	0.08	0.40	4.09
46	UGANDA	11	0.06	6.95	0.18	11.88	19.88	24.35	60.32	6.18	0.07	0.12	0.15	3.52
47	UKRAINE	12	0.19	5.35	0.25	14.64	13.55	43.60	71.41	7.47	0.05	0.12	0.42	4.00
48	UNITED REPUBLIC	13	0.08	7.17	0.15	11.16	13.13	35.32	82.52	6.21	0.07	0.10	0.16	5.00
49	URUGUAY	18	0.02	4.39	0.22	13.74	18.01	44.17	63.00	8.85	0.04	0.10	0.31	2.50
50	VIET NAM	15	0.08	2.20	0.27	15.72	6.19	22.60	59.63	6.88	0.07	0.11	0.95	4.00
51	ZAMBIA	17	0.05	5.44	0.24	11.77	15.07	41.15	73.75	6.60	0.06	0.15	0.10	4.00
	Total	1861	0.11	3.63	0.25	14.52	11.80	37.97	60.91	8.00	0.05	0.10	0.39	3.52

Note: This table reports the sample countries, annual bank observations from each country and country-level mean values of main variables used in the study.

4. Methodology

For empirical analysis, we first analyzed the political pressure on state-owned banks by examining whether state-owned banks extend politically motivated loans in election years. Then, we analyzed whether better political institutions can help in countering political pressure on state-owned banks.

We specify following multivariate panel econometric model to analyze the impact of better political institutions on the relationship between state-owned banks' lending behavior and elections.

$$\begin{aligned}
 & \text{Loan Growth}_{i,j,t} \\
 & = \alpha_i + \beta_1 \text{Election}_{j,t} + \beta_2 \text{Bank Size}_{i,j,t-1} + \beta_3 \text{Bank Capital}_{i,j,t-1} \\
 & + \beta_4 \text{Non Interest Income}_{i,j,t-1} + \beta_5 \text{Charter Value}_{i,j,t-1} \\
 & + \beta_6 \text{GDP Per Capita}_{j,t} + \beta_7 \text{GDP Growth}_{j,t} + \beta_8 \text{Inflation}_{j,t} \\
 & + \beta_9 \text{Financial Development}_{i,t} + \beta_{10} \text{Law and Order}_{i,t} \\
 & + \text{Year_dummies}_t + \varepsilon_{i,j,t}
 \end{aligned} \tag{1}$$

Here, dependent variable, $\text{Loan Growth}_{i,j,t}$, measures the change in loans from one year to the next normalized by the previous year's assets, calculated as, $(\text{Loans}(t) - \text{Loans}(t - 1)) / \text{Total Assets}(t - 1)$. This variable has been used in previous studies such as [Dinç \(2005\)](#) and [Micco et al. \(2007\)](#) to measure bank loan growth. Since dependent variable in Equation (1) is scaled with the value of total assets at the start of the year, we followed [Dinç \(2005\)](#) and measured all bank level control variables at the start of the year. Measuring bank level control variables at the start of year would reduce the endogeneity concerns in this model.

$\text{Election}_{j,t}$ is a dummy variable equals to "1" if it is a political election year in a country j at time t and "0" for all other non-election years. It is the main variable of interest and captures the impact of political pressure on loans growth of state-owned banks during election years. If state-owned banks lend more in election years due to political pressure, we expect a positive association between Loan Growth and Election variables.

To confirm whether higher lending by state-owned banks in election years is politically motivated, we specify the following multivariate panel econometric model.

$$\begin{aligned}
 & \text{Interest Income}_{i,j,t} \\
 & = \alpha_i + \beta_1 \text{Election}_{j,t} + \beta_2 \text{Bank Size}_{i,j,t} + \beta_3 \text{Bank Capital}_{i,j,t} \\
 & + \beta_4 \text{Non Interest Income}_{i,j,t} + \beta_5 \text{Charter Value}_{i,j,t} \\
 & + \beta_6 \text{GDP Per Capita}_{j,t} + \beta_7 \text{GDP Growth}_{j,t} + \beta_8 \text{Inflation}_{j,t} \\
 & + \beta_9 \text{Financial Development}_{i,t} + \beta_{10} \text{Law and Order}_{i,t} \\
 & + \text{Year_dummies}_t + \varepsilon_{i,j,t}
 \end{aligned} \tag{2}$$

Here, dependent variable, $\text{Interest Income}_{i,j,t}$, is annual net interest income to total assets ratio of a bank. This variable measures the profitability of a bank as a financial intermediary ([Demirgüç-Kunt and Huizinga 1999](#)) and was used by [Micco et al. \(2007\)](#) and [Jackowicz et al. \(2013\)](#) to examine the impact of political elections on state-owned bank's profitability. Politically motivated loans are usually underpriced and likely to result in lower profitability for banks ([Micco et al. 2007](#); [Jackowicz et al. 2013](#)). If higher lending by the state-owned banks in election years is politically motivated, then we expect a negative association between Interest Income and Election variables in Equation (2).

After confirming the political pressure on state-owned banks with Equations (1) and (2), we examined whether better political institutions can help in countering political pressure on state-owned banks. To do so, we distributed our main sample into two sub-samples of weak and strong political institutions countries. We re-estimated both models for each sub-group. If better political institutions can help in reducing political pressure, we expect that the extent of politically motivated underpriced loans would be high in weak political institutions sub-sample of countries as compared to strong political institutions sub-sample.

To measure political institutions, we used [Henisz \(2000\)](#) index of political constraints. Henisz measures political institutions by measuring the constraints which a policy change decision by any one branch of government can face from other branches of the government². Political constraints index measures the degree of constraints on policy change using data on the number of independent veto points in the political system (executive, legislative (including lower house of legislature and higher house of legislature), judicial, and sub-federal branches of government) and the distribution of political preferences both across and within these branches. Political constraints index ranges 0–1 where higher values represent more constraints on veto players of a system and their political preferences and show better political institutions, and vice versa. As a measure of government’s ability to credibly commit not to interfere with private property rights³, this index is better for this study to detect the influence of better political institutions (in the form of more constraints) on politicians’ use of state-owned banks’ lending for election purposes. We expect that, in countries with better political institutions, politicians face more constraints from other veto powers to change policy during election years and hence are less able to affect state-owned banks’ lending behavior.

We used four variables to control for bank-level characteristics in both Equation (1) and (2): *Bank Size* equals log of the annual value of total assets for each bank and represents the size of a bank; *Bank Capital* equals annual equity to total assets ratio and controls for capitalization level of a bank; *Non-Interest Income* equals annual non-interest income to total operating income ratio and represents the share of fees and commissions in total operating income of a bank, thus controls for income structure of a bank; and *Charter Value* is measured with annual customer deposits to total assets ratio and controls for the effect of charter value of a bank.

Since the study included banks from 51 countries, loan growth and interest income earned by the sample banks can vary due to different macroeconomic circumstances, the level of financial development and institutional environment of their countries of origin. Therefore, we included several country-level variables to control for these country characteristics.

Three variables are included to control for macroeconomic conditions of sample countries: *GDP Per Capita*, *GDP Growth* and *Inflation*. *GDP Per Capita* is the log of annual GDP per capita for each country. *GDP Growth* is year-on-year growth in GDP of a country where annual GDP is measured in current US dollars. *Inflation* is annual percentage change in consumer prices.

Financial Development is measured with annual domestic credit to private sector to GDP ratio and controls for the level of financial development of sample countries. Data for macroeconomic and financial development variables were obtained from World Development Indicators database of World Bank. *Law and Order* is law and order index from ICRG database and measures the law enforcement tradition of a country.

Year_dummies are year fixed-effects binary variables. *Year_dummies* were included to control for global business cycles that can affect banks of all countries in a year. α_i is bank fixed-effects. $\varepsilon_{i,j,t}$ is error term. Equations (1) and (2) indicate that the fixed effects model is chosen. This model choice is supported by results from the Hausman test ([Hausman 1978](#)).

² One criticism on political constraints index is that, if a government faces more constraints, then it is difficult to change bad policies. However, as the focus of this study is how strong political institutions constrain politicians from influencing state-owned banks, political constraints index is a better measure.

³ [Glaeser et al. \(2004\)](#) compared three measures usually employed by literature as proxies of political institutions: government effectiveness, risk of expropriation by the government and constraints on the executive. They argued that first two measures, by construction, do not represent political institutions but are actually government outcomes/performance. They suggested the third one, constraints on the executive, is a suitable measure of political institutions.

5. Empirical Results

5.1. Summary Statistics

Table 1 reports the number of bank observations from each country, as well as the country-level mean values of two dependent (Loan Growth and Income) and other control variables.

Table 2 reports summary statistics for the main variables. Loan Growth has a mean value of 0.11 with a standard deviation of 0.20. The mean value of Loan Growth variables shows that, on average, loans of sample banks have grown by 0.11 percent of assets annually. The 3.63 mean value of Income variable indicates that, on average, sample banks have earned 3.63 percent of assets in net interest income. The 0.25 mean value of Election dummy variable demonstrates that, on average, elections have occurred every fourth year in our sample countries. Other bank-level and country-level control variables also have considerable within sample variation, as shown in the mean and standard deviation values reported in Table 2.

Table 2. Summary statistics.

Variables	Mean	S.D.	Min	Max
Loan Growth	0.11	0.20	−0.38	1.05
Interest Income	3.63	2.30	−3.03	11.77
Election	0.25	0.43	0.00	1.00
Bank Size	14.52	2.08	8.09	20.15
Bank Capital	11.80	9.85	0.22	61.17
Non-Interest Income	37.97	23.84	−15.48	123.09
Charter Value	60.91	24.01	0.25	90.49
GDP Per Capita	8.00	1.10	4.71	9.98
GDP Growth	0.05	0.04	−0.18	0.34
Inflation	0.10	0.18	−0.18	3.25
Financial Development	0.39	0.25	0.02	1.67
Law and Order	3.52	0.88	1.04	6.00

Note: This table reports full sample summary statistics of all important variables. Loan Growth is year-on-year growth in bank gross loans. Interest Income is annual net interest income to total assets ratio. Election is a dummy variable equal to one for election years in sample countries and zero otherwise. Bank Size equals log of bank annual total assets. Bank Capital equals annual equity to total assets ratio. Non-Interest Income equals annual non-interest income to total revenue ratio. Charter Value equals annual deposits to total assets ratio. Loan Growth, Interest Income, Bank Size, Bank Capital, Non-Interest Income and Charter Value are measured at bank-level. GDP Per Capita is the log of annual GDP per capita for each country where annual GDP per capita is measured in current US dollars. GDP Growth is year-on-year growth in GDP of a country. Inflation is annual percentage change in consumer prices. Financial development equals annual domestic credit to private sector to GDP ratio. Law and Order measures the extent of law enforcement of each country. GDP Per Capita, GDP Growth, Inflation, Financial development and Law and Order are measured at country-level.

Table 3 reports Pearson correlations between variables. The correlation coefficients between variables are not very strong suggesting that multicollinearity is less a concern in our multivariate models. Multicollinearity might be a serious concern in multivariate model if correlation coefficient between two independent variables exceeds 0.8 (Gujarati and Porter 2009).

Table 3. Pairwise Pearson correlations.

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
(1) Loan Growth	1.00											
(2) Interest Income	0.04	1.00										
(3) Election	0.03	−0.02	1.00									
(4) Bank Size	0.06	−0.30	−0.02	1.00								
(5) Bank Capital	0.06	0.37	0.02	−0.42	1.00							
(6) Non-Interest Income	−0.06	−0.26	0.04	−0.27	0.10	1.00						
(7) Charter Value	−0.05	−0.15	−0.05	0.31	−0.51	−0.25	1.00					
(8) GDP Per Capita	0.05	0.09	0.08	−0.05	0.25	0.08	−0.47	1.00				
(9) GDP Growth	0.31	−0.02	0.05	0.07	−0.10	−0.03	0.18	−0.23	1.00			
(10) Inflation	−0.06	0.06	−0.04	−0.11	0.04	0.15	−0.03	−0.12	−0.02	1.00		
(11) Financial Development	−0.05	−0.18	−0.04	0.17	0.02	−0.16	0.00	0.26	−0.14	−0.20	1.00	
(12) Law and Order	0.06	−0.16	−0.01	0.11	−0.07	−0.03	0.05	0.01	0.04	−0.04	0.17	1.00

Note: This table reports Pearson correlations between main variables. Loan Growth is year-on-year growth in bank gross loans. Interest Income is annual net interest income to total assets ratio. Election is a dummy variable equal to one for election years in sample countries and zero otherwise. Bank Size equals log of bank annual total assets. Bank Capital equals annual equity to total assets ratio. Non-Interest Income equals annual non-interest income to total revenue ratio. Charter Value equals annual deposits to total assets ratio. Loan Growth, Interest Income, Bank Size, Bank Capital, Non-Interest Income and Charter Value are measured at bank-level. GDP Per Capita is the log of annual GDP per capita for each country where annual GDP per capital is measured in current US dollars. GDP Growth is year-on-year growth in GDP of a country. Inflation is annual percentage change in consumer prices. Financial development equals annual domestic credit to private sector to GDP ratio. Law and Order measures the extent of law enforcement of each country. GDP Per Capita, GDP Growth, Inflation, Financial development and Law and Order are measured at country-level.

5.2. Political Pressure on State-Owned Banks: Multivariate Analysis

First, we estimated Equations (1) and (2) for the full sample to confirm whether state-owned banks face political pressure and extend politically motivated loans in developing countries. Both equations were estimated using fixed-effects panel regression estimator⁴, and results are reported in Table 4.

Election dummy variable enters with a positive coefficient (0.018) in Model 1 which is statistically significant at five percent level. This result suggests that state-owned banks extend significantly higher amount of loans in election years as compared to their loans in non-election years. This result is consistent with the findings reported by earlier studies that state-owned banks lend more in election years in developing countries (Dinç 2005; Micco and Panizza 2006; Micco et al. 2007; Cole 2009).

In Model 2, Election enters with a negative coefficient (−0.072) which is statistically significant at five percent level. The negative association between net interest income and Election variables suggests that state-owned banks earn significantly lower net interest income during election years as compared to their net interest income in non-election years. This result is consistent with the results of previous studies that state-owned banks largely extend underpriced loans and earn lower interest income in election years (Micco et al. 2007; Jackowicz et al. 2013). Results of Models 1 and 2 together suggest that state-owned banks face political pressure in developing countries and extend higher amount of underpriced loans in election years.

Most of the control variables show significance in expected directions. Bank size variable, Bank Size, has negative and statistically significant coefficients in both regressions showing that small banks lend more and earn higher interest income. The possible reason is that big banks have large volumes of loans and therefore a corresponding increase in loans is lower for big state-owned banks relative to their small counterparts. Further, large banks can afford higher monitoring of borrowers and benefit from economies of scale which lead them to charge lower interest on loans. Capital Ratio, Bank Capital,

⁴ We performed Hausman test to select between fixed-effects or random-effects panel regressions. For all specifications, Huasman test favored fixed-effects model (Dinç 2005 also used fixed-effect model).

has positive and significant coefficients suggesting that better-capitalized banks increase their lending more and earn a higher income. Higher equity in capital structure reduces interest costs and allows for the development of credit activities in line with the capital adequacy regulations. Non-Interest Income, bank income structure variable, enters negative in Model 2 showing that banks which rely more on non-interest income have the lower portion of interest income. Charter Value variable enters positively in both models. These results confirm that the banks with a higher amount of liquid source of deposit funding extend the higher amount of loans and earn a higher income.

Table 4. Political pressure on state-owned banks.

Variables	Loan Growth	Interest Income
	Model (1)	Model (2)
Election	0.018 ** (0.049)	−0.072 ** (0.031)
Bank Size	−0.135 *** (0.000)	−0.426 *** (0.000)
Bank Capital	0.003 *** (0.002)	0.064 *** (0.000)
Non-Interest Income	0.000 (0.778)	−0.044 *** (0.000)
Charter Value	0.001 (0.167)	0.011 *** (0.004)
GDP Per Capita	0.180 *** (0.000)	0.106 (0.630)
GDP Growth	0.993 *** (0.000)	1.239 ** (0.048)
Inflation	−0.012 (0.703)	0.172 (0.435)
Financial Development	0.114 ** (0.038)	−2.224 *** (0.000)
Law and Order	0.001 (0.963)	0.527 *** (0.000)
<i>Year_dummies</i>	Yes	Yes
Constant	0.430 ** (0.040)	7.246 *** (0.000)
Observations	1649	1861
R-squared	0.281	0.339
Banks	185	185

Note: Dependent variable is Loan Growth in Model 1 and Interest Income in Model 2. Loan Growth is year-on-year growth in bank gross loans. Interest Income is annual net interest income to total assets ratio. Election is a dummy variable equal to one for election years in sample countries and zero otherwise. Bank Size equals log of bank annual total assets. Bank Capital equals annual equity to total assets ratio. Non-Interest Income equals annual non-interest income to total revenue ratio. Charter Value equals annual deposits to total assets ratio. Loan Growth, Interest Income, Bank Size, Bank Capital, Non-Interest Income and Charter Value are measured at bank-level. GDP Per Capita is the log of annual GDP per capita for each country where annual GDP per capital is measured in current US dollars. GDP Growth is year-on-year growth in GDP of a country. Inflation is annual percentage change in consumer prices. Financial development equals annual domestic credit to private sector to GDP ratio. Law and Order measures the extent of law enforcement of each country. GDP Per Capita, GDP Growth, Inflation, Financial development and Law and Order are measured at country-level. *Year_dummies* are yearly dummy variables. *p*-values are computed by the heteroskedastic-robust standard errors and are presented in parenthesis. ***, **, and * represent statistical significance at 1, 5 and 10 percent levels, respectively.

For macroeconomic variables, positive and significant coefficients of GDP Per Capita and GDP Growth variables show that banks lend more and earn a higher income in developing countries which have higher per capita incomes and higher growth rates. Results of Financial Development indicate that banks lend more, while earn lower interest income in financially developed counties. These results show that banks face more competition in financially developed environments which lead them to

lend more at lower interest rates to be competitive. Law_Order variable enters positive in Model 2 showing that banks earn a higher income in the better rule of law countries.

Notice that all the regressions include Year_dummies to control for year fixed-effects such as global economic shocks. Further, fixed-effects model naturally controls for fixed institutional differences across countries, such as legal institutions or national culture, and rule-out the possibility that our results are due to these institutions.

5.3. Political Institutions and Political Pressure on State-Owned Banks: Multivariate Analysis

After confirming the existence of political pressure on state-owned banks in developing countries, we proceeded to analyze whether better political institutions help in reducing this political pressure. To do so, we distributed our main sample into two sub-samples of weak and strong political institutions countries. As described in Section 4, we measured political institutions of a country with political constraints index of Henisz (2000). We distributed our sample based on sample mean value of political constraints index, which is 0.46 for our sample countries. We classified banks from countries which have a value of political constraints index above 0.46 in strong political institutions countries sub-sample. Similarly, banks from countries which have a value of political constraints index below 0.46 were classified in weak political institutions countries sub-sample. This distribution gives an almost equal representation of countries in both sub-samples (27 in weak political institutions group and 24 in strong political institutions out of entire 51 sample countries).

We estimated Equation (1) for both sub-samples one-by-one to examine the impact of political institutions on the relationship between electoral elections and bank lending. As shown from the results reported in Table 5, Election variable enters positive and significant in weak political institutions countries sub-sample (Model 1) but highly insignificant in strong political institutions countries sub-sample (Model 2). These results show that state-owned banks lend more in election years in weak political institutions countries only, while better political institutions in the form of higher constraints on politicians’ decision-making process eliminate political pressure on state-owned bank lending.

Next, we estimated Equation (2) for both sub-samples separately to examine the impact of political institutions on the relationship between electoral elections and bank profitability. Election variable enters negative and significant in weak political institutions countries sub-sample (Model 3) but highly insignificant in strong political institutions countries sub-sample (Model 4). These results show that state-owned banks extend underpriced loans during election years in weak political institutions countries only, while better political institutions of a country eliminate the negative impact of elections on bank profitability.

Table 5. Political institutions and political pressure on state-owned banks.

Variables	Loan Growth	Loan Growth	Interest Income	Interest Income
	Weak Political Institutions	Strong Political Institutions	Weak Political Institutions	Strong Political Institutions
	Model (1)	Model (2)	Model (3)	Model (4)
Election	0.033 ** (0.014)	−0.000 (0.982)	−0.095 ** (0.024)	0.018 (0.849)
Bank Size	−0.121 *** (0.000)	−0.145 *** (0.000)	−0.735 *** (0.000)	−0.192 * (0.100)
Bank Capital	0.009 *** (0.000)	−0.001 (0.365)	0.058 *** (0.000)	0.067 *** (0.000)
Non-Interest Income	0.000 (0.701)	0.000 (0.360)	−0.046 *** (0.000)	−0.043 *** (0.000)
Charter Value	0.002 *** (0.009)	−0.000 (0.712)	0.008 (0.126)	0.012 ** (0.021)

Table 5. Cont.

Variables	Loan Growth		Interest Income	
	Weak Political Institutions	Strong Political Institutions	Weak Political Institutions	Strong Political Institutions
	Model (1)	Model (2)	Model (3)	Model (4)
GDP Per Capita	0.130 *** (0.001)	0.209 *** (0.000)	0.214 (0.498)	0.030 (0.931)
GDP Growth	0.915 *** (0.000)	1.381 *** (0.000)	3.511 ** (0.039)	−2.710 * (0.087)
Inflation	−0.023 (0.509)	0.051 (0.715)	0.307 (0.227)	0.532 (0.480)
Financial Development	0.211 *** (0.005)	0.007 (0.938)	0.266 (0.676)	−3.808 *** (0.000)
Law and Order	0.018 (0.302)	−0.020 (0.280)	0.761 *** (0.000)	0.096 (0.469)
<i>Year_dummies</i>	Yes	Yes	Yes	Yes
Constant	0.362 (0.195)	0.556 (0.116)	8.517 *** (0.000)	7.235 *** (0.005)
Observations	778	871	876	985
R-squared	0.281	0.358	0.380	0.358
Banks	85	100	85	100

Note: Dependent variable is Loan Growth in Models 1 and 2, and Interest Income in Models 3 and 4. Loan Growth is year-on-year growth in bank gross loans. Interest Income is annual net interest income to total assets ratio. Election is a dummy variable equal to one for election years in sample countries and zero otherwise. Bank Size equals log of bank annual total assets. Bank Capital equals annual equity to total assets ratio. Non-Interest Income equals annual non-interest income to total revenue ratio. Charter Value equals annual deposits to total assets ratio. Loan Growth, Interest Income, Bank Size, Bank Capital, Non-Interest Income and Charter Value are measured at bank-level. GDP Per Capita is the log of annual GDP per capita for each country where annual GDP per capita is measured in current US dollars. GDP Growth is year-on-year growth in GDP of a country. Inflation is annual percentage change in consumer prices. Financial development equals annual domestic credit to private sector to GDP ratio. Law and Order measures the extent of law enforcement of each country. GDP Per Capita, GDP Growth, Inflation, Financial development and Law and Order are measured at country-level. *Year_dummies* are yearly dummy variables. *p*-values are computed by the heteroskedastic-robust standard errors and are presented in parenthesis. ***, **, and * represent statistical significance at 1, 5 and 10 percent levels, respectively.

5.4. Robustness Tests

We performed two robustness tests. First, we used “Democratic accountability” index from International Country Risk Guide database as an alternative measure of political institutions. This index measures the type of governance in a country (i.e., alternating democracy, dominated democracy, de-facto one-party state, de jure one-party state, and autarchy) and responsiveness of the government to its people. Democratic accountability index ranges from 1 to 6. The highest number of risk points of 6 (lowest risk) is assigned to Alternating Democracies, while the lowest number of risk points of 1 (highest risk) is assigned to Autarchies. On the one end, alternating democracies governance system represents the active presence of more than one political party and a viable opposition, free and fair elections for the legislature and executive as determined by constitution or statute, and evidence of checks and balances among the three elements of government: executive, legislative and judicial. On the opposite end, autarchy represents the leadership of a state by a group or single person, without being subject to any franchise; either through military might or inherited right. Higher democratic accountability shows higher inherent constraints on politicians as they have to go to voters for reselection in elections. Further, strong opposition in alternating democracies puts strong check on government politicians. On the contrary, autarchy gives absolute powers to one or few individuals without strong checks and balances of their discretion. Overall, we can expect that higher democratic accountability will constrain politicians from interfering in state-owned banks and thus political pressure will be lower.

We distributed the main sample into weak and strong political institutions countries sub-samples based on the sample mean value (4.09) of democratic accountability index. We classified banks from countries which have a value of democratic accountability index above 4.09 in strong political institutions countries sub-sample. Similarly, banks from countries which have a value of democratic accountability index below 4.09 are classified in weak political institutions countries sub-sample. This distribution gives an almost equal representation of countries in both sub-groups (26 in weak political institutions group and 25 in strong political institutions out of whole 51 sample countries). As shown in Table 6, the results remain the same: election variable enters positively significant with loan growth variable and negatively significant with Income variable in only weak democratic accountability countries in Models 1 and 3, respectively.

Table 6. Political institutions and political pressure on state-owned banks (Alternate proxy of political institutions).

Variables	Loan Growth	Loan Growth	Interest Income	Interest Income
	Model (1)	Model (2)	Model (3)	Model (4)
Election	0.029 * (0.081)	−0.003 (0.765)	−0.114 ** (0.048)	0.029 (0.922)
Bank Size	−0.156 *** (0.000)	−0.081 *** (0.000)	−0.594 *** (0.000)	−0.131 (0.344)
Bank Capital	0.004 *** (0.004)	0.001 (0.476)	0.023 *** (0.008)	0.120 *** (0.000)
Non-Interest Income	0.000 (0.585)	−0.000 (0.742)	−0.042 *** (0.000)	−0.045 *** (0.000)
Charter Value	0.001 (0.174)	−0.001 (0.266)	0.002 (0.661)	0.023 *** (0.000)
GDP Per Capita	0.165 *** (0.001)	0.260 *** (0.000)	−0.019 (0.949)	−0.614 (0.121)
GDP Growth	0.718 *** (0.006)	1.214 *** (0.000)	−1.514 (0.355)	2.714 (0.115)
Inflation	−0.029 (0.506)	0.097 (0.321)	−0.216 (0.366)	1.161 (0.195)
Financial Development	0.165 * (0.079)	−0.002 (0.971)	−0.072 (0.904)	−3.864 *** (0.000)
Law and Order	−0.010 (0.689)	−0.003 (0.840)	−0.017 (0.906)	0.981 *** (0.000)
<i>Year_dummies</i>	Yes	Yes	Yes	Yes
Constant	0.775 ** (0.033)	−0.772 *** (0.004)	13.050 *** (0.000)	5.883 ** (0.036)
Observations	770	879	872	989
R-squared	0.295	0.365	0.337	0.428
Banks	91	94	91	94

Note: Dependent variable is Loan Growth in Models 1 and 2, and Interest Income in Models 3 and 4. Loan Growth is year-on-year growth in bank gross loans. Interest Income is annual net interest income to total assets ratio. Election is a dummy variable equal to one for election years in sample countries and zero otherwise. Bank Size equals log of bank annual total assets. Bank Capital equals annual equity to total assets ratio. Non-Interest Income equals annual non-interest income to total revenue ratio. Charter Value equals annual deposits to total assets ratio. Loan Growth, Interest Income, Bank Size, Bank Capital, Non-Interest Income and Charter Value are measured at bank-level. GDP Per Capita is the log of annual GDP per capita for each country where annual GDP per capita is measured in current US dollars. GDP Growth is year-on-year growth in GDP of a country. Inflation is annual percentage change in consumer prices. Financial development equals annual domestic credit to private sector to GDP ratio. Law and Order measures the extent of law enforcement of each country. GDP Per Capita, GDP Growth, Inflation, Financial development and Law and Order are measured at country-level. *Year_dummies* are yearly dummy variables. *p*-values are computed by the heteroskedastic-robust standard errors and are presented in parenthesis. ***, **, and * represent statistical significance at 1, 5 and 10 percent levels, respectively.

Second, financial crisis situation in a country may significantly change banks' behavior. To control for this effect, we used a dummy variable, equal to one if a country is categorized as under financial crisis in a year by the [Laeven and Valencia \(2013\)](#)'s financial crisis database and zero otherwise. We re-estimated all models in Tables 4–6 after including this dummy variable. All results largely remain the same. For brevity, we do not report these results⁵.

6. Conclusions

The theory of political benefits argues that politicians use state-owned banks for political purposes such as obtaining and maintaining political support, while the theory of social welfare goal argues that state-owned banks exist to counter market failures and finance socially important projects. This paper is a contribution to the theory of political benefits of state-owned banks. Using an international sample of 185 state-owned banks from 51 developing countries over the period 1998–2012, we report two main findings. First, we found significant political pressure on state-owned banks; that is, state-owned banks lend more and earn less in election years in developing countries. Second, we found that political pressure is more prevalent in developing countries with weak political institutions but not in countries with strong political institutions. Strong political institutions in the form of higher constraints on a policy change by any one fraction of the government and higher democratic accountability are helpful in eliminating political pressure on state-owned banks in developing countries.

This paper contributes to the growing literature which argues that strong political institutions help in fostering financial development ([Roe 2006](#); [Roe and Siegel 2011](#)) and adds to our understating by revealing a channel, politicians' influence, through which political institutions affect the financial development. Further, previous literature argues that politicians use state-owned banks lending for election purposes in developing countries; this paper goes deeper and points out that this phenomenon is more severe in developing countries with weak political institutions.

Author Contributions: This paper is a part of B.N.A.'s wider project which investigates the role of politics for the financial development at bank-level. He conceived the idea, did the analysis and drafted the paper. S.A. prepared the data and improved the overall write-up of the paper. L.Y. helped in improving the empirical analysis.

Funding: This research received no external funding.

Acknowledgments: We acknowledge very constructive comments from the editor and anonymous reviewers of this paper. We also acknowledge the very insight comments from the participants of various seminars at Huazhong University of Science and Technology (Wuhan, China), East China Jiao Tong University (Nanchang, China) and Jiangxi University of Finance and Economics (Nanchang, China) on earlier versions of this paper.

Conflicts of Interest: The authors declare no conflict of interest.

References

- Ashraf, Badar Nadeem. 2017. Political Institutions and Bank Risk-Taking Behavior. *Journal of Financial Stability* 29: 13–35. [[CrossRef](#)]
- Ashraf, Badar Nadeem. 2018. Do trade and financial openness matter for financial development? Bank-level evidence from emerging market economies. *Research in International Business and Finance* 44: 434–58. [[CrossRef](#)]
- Ashraf, Badar Nadeem, and Sidra Arshad. 2017. Foreign bank subsidiaries' risk-taking behavior: Impact of home and host country national culture. *Research in International Business and Finance* 41: 318–35. [[CrossRef](#)]
- Ashraf, Badar Nadeem, and Changjun Zheng. 2015. Shareholder protection, creditor rights and bank dividend policies. *China Finance Review International* 5: 161–86. [[CrossRef](#)]
- Ashraf, Badar Nadeem, Changjun Zheng, and Sidra Arshad. 2016. Effects of national culture on bank risk-taking behavior. *Research in International Business and Finance* 37: 309–26. [[CrossRef](#)]

⁵ These results are available from authors upon request.

- Banerjee, Sreejata, and Malathi Velamuri. 2015. The conundrum of profitability versus soundness for banks by ownership type: Evidence from the Indian banking sector. *Review of Financial Economics* 26: 12–24. [\[CrossRef\]](#)
- Baum, Christopher F., Mustafa Caglayan, and Oleksandr Talavera. 2010. Parliamentary election cycles and the Turkish banking sector. *Journal of Banking & Finance* 34: 2709–19.
- Bordo, Michael D., and Peter L. Rousseau. 2006. Legal-political factors and the historical evolution of the finance-growth link. *European Review of Economic History* 10: 421–44. [\[CrossRef\]](#)
- Boubakri, Narjess, Sattar A. Mansi, and Walid Saffar. 2013. Political institutions, connectedness, and corporate risk-taking. *Journal of International Business Studies* 44: 195–215. [\[CrossRef\]](#)
- Boubakri, Narjess, Sadok El Ghouli, and Walid Saffar. 2014. Political rights and equity pricing. *Journal of Corporate Finance* 27: 326–44. [\[CrossRef\]](#)
- Chen, Pei-Fen, and Ping-Chin Liu. 2013. Bank ownership, performance, and the politics: Evidence from Taiwan. *Economic Modelling* 31: 578–85. [\[CrossRef\]](#)
- Chen, Yan-Shing, Yehning Chen, Chih-Yung Lin, and Zenu Sharma. 2016. Is there a bright side to government banks? Evidence from the global financial crisis. *Journal of Financial Stability* 26: 128–43. [\[CrossRef\]](#)
- Cole, Shawn. 2009. Fixing market failures or fixing elections? Agricultural credit in India. *American Economic Journal: Applied Economics* 1: 219–50. [\[CrossRef\]](#)
- Demirgüç-Kunt, Ash, and Harry Huizinga. 1999. Determinants of commercial bank interest margins and profitability: Some international evidence. *The World Bank Economic Review* 13: 379–408. [\[CrossRef\]](#)
- Diñç, I. Serdar. 2005. Politicians and banks: Political influences on government-owned banks in emerging markets. *Journal of Financial Economics* 77: 453–79. [\[CrossRef\]](#)
- Girma, Sourafel, and Anja Shortland. 2008. The political economy of financial development. *Oxford Economic Papers* 60: 567–96. [\[CrossRef\]](#)
- Glaeser, Edward L., Rafael La Porta, Florencio Lopez-de-Silanes, and Andrei Shleifer. 2004. Do Institutions Cause Growth? *Journal of Economic Growth* 9: 271–303. [\[CrossRef\]](#)
- Gujarati, Damodar N., and Dawn C. Porter. 2009. *Basic Econometrics*, 5th ed. New Delhi: Tata McGraw Hill Education Pvt. Ltd.
- Hausman, Jerry A. 1978. Specification tests in econometrics. *Econometrica: Journal of the Econometric Society* 46: 1251–71. [\[CrossRef\]](#)
- Hayek, Friedrich August. 1967. *Studies in Philosophy, Politics and Economics*. Chicago: University of Chicago Press.
- Henisz, Witold J. 2000. The institutional environment for economic growth. *Economics & Politics* 12: 1–31.
- Ho, Po-Hsin, Hung-Kun Chen, Chih-Yung Lin, and Che-Wei Chi. 2016. Does monitoring by the media improve the performance of government banks? *Journal of Financial Stability* 22: 76–87. [\[CrossRef\]](#)
- Houston, Joel F., Chen Lin, Ping Lin, and Yue Ma. 2010. Creditor rights, information sharing, and bank risk taking. *Journal of Financial Economics* 96: 485–512. [\[CrossRef\]](#)
- Jackowicz, Krzysztof, Oskar Kowalewski, and Łukasz Kozłowski. 2013. The influence of political factors on commercial banks in Central European countries. *Journal of Financial Stability* 9: 759–77. [\[CrossRef\]](#)
- Kanagaretnam, Kiridaran, Chee Yeow Lim, and Gerald J. Lobo. 2014. Influence of National Culture on Accounting Conservatism and Risk-Taking in the Banking Industry. *Accounting Review* 89: 1115–49. [\[CrossRef\]](#)
- Keefer, Philip. 2007. Beyond Legal Origin and Checks and Balances: Political Credibility, Citizen Information, and Financial Sector Development. Policy Research Working Paper 4154, World Bank, Washington, DC, USA.
- 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: 1371–411. [\[CrossRef\]](#)
- Laeven, Luc, and Fabian Valencia. 2013. Systemic banking crises database. *IMF Economic Review* 61: 225–70. [\[CrossRef\]](#)
- Micco, Alejandro, and Ugo Panizza. 2006. Bank ownership and lending behavior. *Economics Letters* 93: 248–54. [\[CrossRef\]](#)
- Micco, Alejandro, Ugo Panizza, and Monica Yanez. 2007. Bank ownership and performance. Does politics matter? *Journal of Banking & Finance* 31: 219–41.
- North, Douglass Cecil. 1981. *Structure and Change in Economic History*. New York: Norton & Co.
- North, Douglass C. 1990. *Institutions, Institutional Change and Economic Performance*. Cambridge: Cambridge University Press.
- Qi, Yaxuan, Lukas Roth, and John K. Wald. 2010. Political rights and the cost of debt. *Journal of Financial Economics* 95: 202–26. [\[CrossRef\]](#)

- Quintyn, Marc, and Geneviève Verdier. 2010. Mother, Can I Trust the Government? Sustained Financial Deepening—A Political Institutions View IMF Working Paper, WP/10/210, International Monetary Fund, Washington, DC, USA.
- Roe, Mark J. 2006. Legal origins, politics, and modern stock markets. *Harvard Law Review* 120: 460–527.
- Roe, Mark J., and Jordan I. Siegel. 2011. Political instability: Effects on financial development, roots in the severity of economic inequality. *Journal of Comparative Economics* 39: 279–309. [[CrossRef](#)]
- Rothstein, Bo. 1996. Political institutions: An overview. In *A New Handbook of Political Science*. London: Oxford University Press, pp. 133–66.
- Shen, Chung-Hua, and Chih-Yung Lin. 2012. Why government banks underperform: A political interference view. *Journal of Financial Intermediation* 21: 181–202. [[CrossRef](#)]
- Sutaryo, Sutaryo, Bayu Giri Prakosa, Irwan Trinugroho, Muhammad Agung Prabowo, and Arif Rahman Hakim. 2016. Political cycles and lending behavior of state-owned banks: The case of Indonesia. *Advanced Science Letters* 22: 1742–44. [[CrossRef](#)]
- Zheng, Changjun, and Badar Nadeem Ashraf. 2014. National culture and dividend policy: International evidence from banking. *Journal of Behavioral and Experimental Finance* 3: 22–40. [[CrossRef](#)]



© 2018 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<http://creativecommons.org/licenses/by/4.0/>).