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Parliamentary election cycles and the Turkish banking sector

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ABSTRACT

This paper analyzes the effects of parliamentary election cycles on the Turkish banking system. Using annual bank-level data representing all banks in Turkey during 1963–2007, we present evidence of meaningful differences in the structure of bank assets, liabilities and financial performance across different stages of the parliamentary election cycle. However, we find that government-owned banks' behavior does not meaningfully differ from that of either domestic and foreign-owned private-sector banks before, during or after elections. Our estimates also show that government-owned banks underperform both domestic and foreign-owned private-sector counterparts.

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1. Introduction

Despite the observation that the role of commercial banks in market-oriented economies is shrinking, it is an undeniable fact that they retain a pivotal role in financial markets. However, when we investigate the structure of banking systems across different countries, we find substantial differences. For instance, in pure market-oriented economies such as the US and the UK, governments have traditionally only played a regulatory role in the banking sector,¹ while in many other countries governments directly control financial resources through ownership of one or more banks in addition to their regulatory functions.² Nations that contain government-owned or state banks base the existence of such institutions on the ability of state-owned banks to finance projects that would not pass scrutiny at private-sector banks. This reasoning is quite controversial as it harbors the seeds of corruption and inefficiency. For instance, state-owned banks can be misused by the governing party, who may direct state banks to channel funds to

projects which will benefit those who support the government rather than those which serve the greater public interest. In that sense, actions of state-owned banks in financial markets are scrutinized very closely by the public and by international organizations such as the IMF and the World Bank.

Given the potential controversies embedded in a mixed financial system in which private-sector and state-owned banks coexist, researchers are keen to document the behavioral differences between state-owned and private-sector banks. The questions that researchers investigate vary from the significance of bank ownership in the promotion of economic growth to politicians' ability to influence election results through state-owned banks' actions. At the heart of the matter, researchers seek to determine whether state-owned banks fulfill their functions efficiently and effectively or if they promote abuse and economic inefficiency through misallocation of capital.

1.1. Brief literature review

Recent research points out that state-owned banks in developing countries seem to have lower profitability and higher costs. An earlier study by Molyneux and Thornton (1992), who use a sample of European banks during 1986–1989, finds that government ownership has a positive impact on bank profitability. Yet Barth et al. (2000) and La Porta et al. (2002) provide evidence that

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¹ The *de facto* nationalization of US and UK banks in the 2008 financial crisis stands in sharp contrast to those nations' historical behavior.

² For instance, 32% of Turkish banking assets were controlled by the state in 2005.

state-owned banks are associated with lower economic growth. Similarly, Bongini et al. (2002) suggest that political connections may determine governments' intervention to rescue failing banks. Dinç (2005) investigates the effects of politicians' influence on state-owned banks, concentrating on bank lending behavior. Using a large cross-country dataset, he finds evidence that state-owned banks increase their lending in election years relative to private-sector banks. In a similar vein, Brown and Dinç (2005) show that prior to elections, failing banks are less likely to be taken into administration. A recent study by Micco et al. (2007) points out that the performance of state-owned banks worsens during election years as they are influenced by political concerns. A broad cross-country study by Hauner (2008) provides evidence of a significant negative effect of credit to government in developing economies.

Studies that concentrate on country-specific data on the behavior of lenders and borrowers also reveal that firms that have political ties with politicians are favored by state-owned banks. Sapienza (2004) shows the effect of political connections on state-owned banks in Italy. Concentrating on Italian firms, he provides evidence that state-owned banks charge lower interest rates than do private-sector banks. He also shows that firms pay lower interest rates in areas where the head of the local state-owned bank has the same party affiliation as the ruling political party. Using data from Pakistan, Khwaja and Mian (2005) provide evidence that low-quality borrowers with political connections can borrow from state-owned banks. Fraser et al. (2006) suggest that Malaysian banks' leverage is affected by the share of government ownership, informal ties to politicians, and the ownership share held by "institutional investors", *de facto* controlled by the government or government-sponsored agencies. Baum et al. (2008) find that politically affiliated banks in Ukraine have significantly lower interest rate margins and that the level of activity of affiliated deputies in parliament has a positive impact on linked banks' capitalization ratios. Cole (2009), using data from India, shows that state bank credit is 5–10% higher in election years and even more so in heavily contested electoral districts. He also indicates that state bank loans are less likely to be repaid. Other researchers have shown that Chinese state-owned banks are less profitable, less efficient and have worse asset quality than other types of banks (Lin and Zhang, 2009; Berger et al., 2009).

Research on Turkish political business cycles also highlights the possibility of state-owned banks being used for the advancement of governments' ambitions. Tutar and Tansel (2001) point out that during election periods both the budget deficit and line items of the budget are significantly negatively affected. Alper and Öniş (2004) claim that these 'deficits reflect the existence of powerful pressures for rent distribution as a major element of Turkey's political economy in recent decades.' Similarly, Akalin and Erkişi (2007) find that government expenditures increase during election years over the 1950–2006 period.

1.2. Overview of the paper

We study the behavior of private-sector and state-owned banks in Turkey throughout parliamentary election cycles. Our dataset covers the period between 1963 and 2007, during which Turkey conducted 11 parliamentary elections. Our sample consists of 2158 bank-year observations pertaining to 86 banks. Since the establishment of the republic in the 1920s, Turkish financial markets benefited from state-owned banks as well as domestic and foreign private-sector banks. Hence, the data, collected and made available by the Banks Association of Turkey, are rich and consistent throughout the period of interest. We carry out our empirical analysis using the system dynamic panel data (DPD) estimator

which combines equations in differences of the variables with equations in levels of the variables (see Blundell and Bond, 1998).

Our study differs from the earlier literature on several dimensions. First, our study provides a thorough investigation of all types of banks in Turkey over election cycles rather than a knife-edge comparison of banks' behavior between election versus non-election years. Next, we also concentrate on the behavior of a number of bank finance ratios, their growth rates and performance measures rather than a single factor. Finally, by focusing on a single country's entire banking sector, we scrutinize a consistent dataset which is not prone to sample selection bias or accounting problems that might have affected the results presented in earlier research.

Several findings emerge in a setting where confounding factors are taken into account within the framework of a dynamic model. Although Turkish election cycles significantly affect bank behavior, these effects do not differ meaningfully across state, domestic and foreign-owned private sector banks. In particular, we find no evidence that state-owned banks increase their lending in comparison to other bank categories before, during, or after elections. This is an interesting finding, and stands in contrast to earlier research that has used cross-country or country-specific data which points out that state-owned banks behave differently during election years. Furthermore, our regression results also show that election cycles do not lead to a differential impact on other key financial ratios across banks. The second set of results, in line with earlier research, indicate that state-owned banks are less efficient in comparison to both domestic and foreign-owned private sector banks.

The rest of this paper is organized as follows. In the next section we describe parliamentary elections in Turkey followed by a short summary of developments in the Turkish banking sector. Section 3 presents the data. Section 4 lays out the econometric model and estimation results. Finally, Section 5 concludes.

2. Parliamentary elections and banking in Turkey

Prior to discussing the empirical model and results, it is useful to provide some information about the parliamentary system and the banking system in Turkey. In the next two subsections, we first discuss parliamentary elections in Turkey and then describe the banking sector.

2.1. Parliamentary elections in Turkey

The Turkish Republic is a secular, democratic and pluralistic parliamentary system. The unicameral Grand National Assembly is elected by popular vote and the country is governed by the Council of Ministers headed by the Prime Minister. Members of the Grand National Assembly are elected for a certain period of time, and may be reelected.

Over the period of our investigation, 11 national parliamentary elections took place in Turkey, in the years 1965, 1969, 1973, 1977, 1983, 1987, 1991, 1995, 1999, 2002 and 2007. The period under investigation is generally characterized by the implementation of two distinct economic policies before and after the military coup of 1980. In particular, the pre-1980 period is considered as a period of a planned economy, and the post-1980 period represents a transition towards a free-market economy. There is also an important distinction between the election system before and after the 1980 coup. During the pre-1980 period the electoral system was based on the d'Hont scheme without any regional or national threshold levels. Hence it was extremely difficult for a single party to construct a government. In this electoral system, members from any of the parties that took part in the election could gain a seat in the parliament. For example, in the elections of 1965 and 1969, all six parties that participated in the elections were able to gain seats

in the Parliament.³ Consequently, the country enjoyed single party governments only in the 1960s. In the 1970s, nine of the eleven established governments were coalitions. Only towards the end of the 1970s do we again see single-party governments. The last government of that era, which was a right-wing cabinet, was swept aside by the military coup of 1980.

The military intervention in 1980 was in response to an unstable political situation that the cabinet and the Grand National Assembly seemed powerless to remedy. The military leaders declared their intention to restore public order and to prepare the country for a transition to a functioning democratic system which would avoid the impasses experienced in prior years. The next parliamentary elections took place in 1983, prior to which all pre-1980 parties were abolished. Only three parties were allowed to take part in this election and a two-party system was envisioned: a governing party, an opposition party and a third party which would participate in the election but not be able to enter the parliament. During the campaign, the pre-1980 leaders were deprived of their political rights and some of the newly-formed parties were denied access to the ballot. When civilian control was restored with the 1983 elections, the pre-1980 parties and several others emerged as the artificial parties established under military rule dissolved into oblivion. In fact 37 new parties were established in the 1983–2007 period and members of 11 parties found a seat in parliament. At least three of these parties are considered as major right-wing parties while one or two are considered main left-wing parties. The remaining parties basically fill the rest of the spectrum from far left to far right. During this period, Turkey experienced single-party governments following the 1983, 1987 and 2002 and 2007 elections, all of which were established by right-wing parties. As a result of the 1991, 1995 and 1999 elections, two- or three-party coalitions emerged, encompassing both left- and right-wing parties.

Prior to the 1983 elections, members of the National Assembly were elected for a four-year term through universal suffrage. Since that time, members are elected for a five-year term, but Parliament may determine the timing of elections. Over the period of our study, parliamentary elections took place every 4 years except for the last two terms. Unlike a number of other parliamentary democracies, by-elections in the Turkish system are not common as the criteria to hold a by-election are quite restrictive. To call for by-elections, at least 5% (or 28) of the 550 seats of the National Assembly must be empty. Furthermore, by-elections cannot take place in the 2 years following a parliamentary election, or within the year before a general election.⁴

2.2. The banking sector in Turkey

The financial sector in Turkey is traditionally dominated by banking activities. The Central Bank of the Republic of Turkey (TCMB), founded in the early 1930s, regulates and supervises the banking system while carrying out other responsibilities such as the issuance of banknotes and protecting the value of the currency. The Central Bank also finances the government's budget deficits and makes loans to public and private banks.

Banking activities have been carried out both by state-owned banks and private-sector banks since the early years of the republic. Most of the private-sector banks are locally owned. Some are foreign-owned, while a few are jointly owned by domestic and foreign banks. The number of state-owned banks declined following the financial liberalization programme of the 1980s. To avoid spec-

ulative motivations, banks operating in Turkey are not allowed to engage in trading of goods or real estate for commercial purposes.

The major domestically owned private banks are closely linked to industrial groups. For instance, Yapı ve Kredi Bankası is owned by the Çukurova Group conglomerate, while Akbank is owned by the Sabancı Group, one of the largest conglomerates. Partially publicly traded Koçbank is owned by another powerful group, Koç Holding Company.⁵ The number of foreign-owned private-sector banks increased substantially after the country went through a programme of financial liberalization in the early 1980s. Currently, banks from various countries including the US, UK, Netherlands, Germany, and Greece operate in Turkey. Also, during the post-1980 period, several joint ventures were created, and two Islamic banks started trading in the financial markets. As foreign banks increased their share in Turkish financial markets, they brought in new concepts and financial practices and help raise the country's banking standards. Overall, the entrance of foreign banks into the Turkish banking system is perceived by bankers and investors throughout the world as a reflection of the progressive internationalization of Turkey's financial system.

When we investigate the state of the financial markets throughout the period of interest, we see that capital markets were highly underdeveloped in the 1960s and 1970s. During those decades state-owned banks were dominant in the system, playing an important role by lending to the government and state-owned enterprises. The market was heavily regulated in terms of new entry, interest rates, and exchange rates. International capital movements and foreign exchange operations were also controlled with a very heavy hand. After the implementation of the financial liberalization and restructuring programme in the 1980s, financial markets began to thrive. Although the state-owned banks continued to have a dominant role in the system while creating unfair competition for deposits and threatening the banking system in the 1990s, their numbers declined steadily after 1987 and stabilized at six by 2000. Their share of total assets in the banking sector has declined fairly steadily since 1992.

In the post-1980 period, fierce competition among banks led to closure of some banks while the total number of banks increased. Interest rates and exchange rates were freed and new banking and capital market laws were introduced. All restrictions on foreign exchange trading and capital movement were removed as well as that on market entry. Turkish citizens were allowed to hold foreign currency and open foreign exchange deposits in banks. During this period, the Özal administration took steps to revive Istanbul's stock market, which had closed down in the late 1970s. The Istanbul Stock Exchange (ISE) reopened in December 1985. Trading on the ISE expanded rapidly in the early 1990s and it became one of the best performing emerging markets among its peers. Foreign exchange operations and international capital movements were liberated and the Turkish lira became fully convertible in 1989. A year later the exchange rate was allowed to be freely determined by market forces. The restructuring of the Turkish economy in the 1980s led to legislative changes and strengthened the Central Bank's role in supervising the markets. Nevertheless, we observe the emergence and collapse of many brokerage houses in 1982 due to fierce competition and weak regulatory enforcement. Yet, with financial liberalization, capital inflows began to rise continuously, and the financial system became increasingly linked with external markets.⁶

Over the period of investigation Turkey experienced two major banking crises, in 1994 and in 2000. These bank crises did not occur due to the absence of regulation but due to weak implementation of these rules. An important step in supervision of the financial markets was taken in 1985 by assigning supervisory responsibility

³ Following the 1980 coup, a change in the election rules introduced a national threshold of 10% to avoid fractionalization of the parliament and encourage single-party governments.

⁴ See Turan (2003) on political developments and Taymaz and Yılmaz (2008) on macroeconomic policies and performance, including the references therein.

⁵ Yapı ve Kredi Bankası and Koçbank merged in 2008.

⁶ For more detail on the Turkish banking system, see Denizer (2000), Mercan et al. (2003), Alper and Öniş (2004), and Matousek et al. (2008).

over the banking sector to the Treasury (Banks Act No. 3182) while the Central Bank was also incorporated in this process. This Act was passed in response to the bank and brokerage house failures of 1982 following the financial liberalization measures of 1980. However, as financial crises emerged in 1994, the Treasury was not able to take over failing banks. The process required the approval of the State Minister for Economic Affairs, whose decisions were politically motivated. Another problem is that banking regulation was a secondary concern for the Treasury as it must deal with day-to-day financial matters of the government and the economy. For a regulatory body, having such dual concerns constitutes an important distortion in the regulatory system. As under-capitalized banks financed government debt by raising cheap finance from international markets, the Treasury as a regulatory body faced a conflict of interest in supervising these banks.

Given the state of the financial markets, it would have been beneficial to have an independent regulatory agency as early as 1980. However, its realization required a significant crisis and the involvement of the IMF. Following the 1994 economic crises and the 1997 Asian crisis, the Bank Act No. 4389 led to the establishment of the Banking Regulation and Supervision Agency (BRSA) in 1999. Several amendments were required to close various loopholes in this new regulatory structure. For instance, Act No. 4491 gave the BRSA the right to issue new banking permits, removing it from the domain of the Council of Ministers. The BRSA had a clear objective to rehabilitate and improve the performance of the banking system. Initially the agency was not immune to political pressures, but during and after the crisis of 2000–2001, its autonomy increased as it dealt with the problems of both private banks and state-owned banks. During the 2000–2001 financial crisis, several banks went into administration under the control of the Savings Deposit Insurance Fund (SDIF), which was established by Act No. 4491 as the legal entity to take over and restructure failing banks. In 2003 corporate governance rules are defined and further strengthened in 2005 by the Capital Markets Board of Turkey. In 2006, the BRSA announced new regulations on corporate governance principles. As importantly, a limited deposit insurance system was adopted in 2004 to replace the full coverage extended to all financial institutions following the 1994 crisis.⁷

The restructuring of the banking system cost the Turkish economy around one third of 2001 GDP or \$53 billion, including \$19 billion in compensation for losses on credits given to small businesses and farmers and \$22.5 billion for the bailout of banks which were transferred to the SDIF. In 2003, a coordination committee was established to ensure the implementation of Basel II standards, and as of 2010, the banks' capital adequacy ratio exceeds the required level. The banking sector in Turkey has been strengthened considerably. Currently, it stands as one of the rare examples of financial sectors able to withstand the 2007–2009 global financial crisis without any bank failures.

3. Data description

Our dataset contains detailed information on all Turkish banks' balance sheets as published on the Banks Association of Turkey website.⁸ The original data set has 2242 observations from 1963 to 2007. We exclude non-state-owned investment banks and banks which have gone into administration.⁹ We also drop banks with few-

er than 5 years of available data as they are either newly-chartered banks or banks that have been liquidated. In order to alleviate the influence of extreme observations, bank-level variables are denoted as missing at the most extreme (top and bottom) 1% level of the distribution on an annual basis. After all screening, our sample size consists of 2158 bank-year observations pertaining to 86 banks. Table 1 presents the number of banks by type over the sample period, as well as the share of assets in the banking sector represented by each type of bank. Our dataset also contains indicator variables indicating the type of bank (private, state-owned or foreign-owned), recession years, and parliamentary election years.

Tables 2 and 3 summarize the variables that we examine in our analysis. Table 2 gives the definitions of variables as well as the basic descriptive statistics for the entire sample. Most banks are domestic private-sector commercial banks. Foreign banks constitute 23.4% of the sample, and state-owned banks represent 21.7% of bank-years. We specifically examine some of the banks' financial ratios including loan-to-asset, deposit-to-asset and securities-to-asset ratios. We also investigate the growth rates of loans, deposits and government securities as well as bank performance measures such as interest expenditures, interest revenues and the interest margin. Descriptive statistics show that banks earn 3.8% interest

Table 1
Number of Turkish banks and shares of bank assets, 1963–2007.

Year	Commercial banks	Foreign banks	State banks	Total banks	Commercial share	Foreign share	State share
1963	25	5	12	42	27.4	4.3	68.3
1964	26	5	12	43	27.6	4.5	67.9
1965	26	5	12	43	28.3	4.2	67.5
1966	26	5	12	43	29.2	4.0	66.8
1967	26	5	12	43	29.2	3.8	67.0
1968	26	5	12	43	30.6	3.6	65.9
1969	26	5	12	43	32.4	3.5	64.1
1970	26	5	12	43	33.8	3.5	62.7
1971	25	5	12	42	36.3	3.4	60.4
1972	24	5	12	41	40.2	4.0	55.8
1973	23	5	12	40	41.4	3.1	55.5
1974	23	5	12	40	40.0	2.6	57.4
1975	22	5	12	39	43.7	3.5	52.8
1976	22	4	13	39	45.9	2.7	51.4
1977	22	4	13	39	46.0	2.8	51.2
1978	23	4	13	40	50.3	2.7	47.0
1979	23	4	13	40	48.0	2.7	49.3
1980	23	4	13	40	45.7	3.0	51.3
1981	23	6	13	42	47.8	3.1	49.1
1982	24	8	13	45	47.3	3.2	49.5
1983	20	9	13	42	43.9	3.8	52.3
1984	20	12	12	44	43.8	4.2	52.1
1985	23	12	12	47	45.5	3.6	50.9
1986	27	13	13	53	45.0	3.7	51.3
1987	28	13	13	54	45.8	2.9	51.3
1988	28	16	12	56	45.6	3.4	51.1
1989	29	18	11	58	43.6	2.9	53.6
1990	29	22	11	62	44.6	3.1	52.3
1991	30	20	11	61	47.0	3.1	50.0
1992	35	20	9	64	46.1	3.3	50.6
1993	36	19	9	64	52.4	3.2	44.4
1994	36	19	9	64	51.1	2.5	46.4
1995	37	18	6	61	54.2	2.9	42.9
1996	39	18	8	65	54.8	1.9	43.3
1997	40	17	8	65	57.1	3.1	39.8
1998	40	17	8	65	56.2	2.7	41.0
1999	35	17	8	60	54.3	3.9	41.8
2000	29	16	6	51	56.1	3.7	40.1
2001	23	15	6	44	57.8	3.4	38.8
2002	23	16	6	45	59.8	3.4	36.8
2003	21	16	6	43	59.5	3.1	37.4
2004	21	15	6	42	58.7	3.5	37.8
2005	20	14	6	40	62.1	3.8	34.1
2006	17	16	6	39	58.4	10.0	31.6
2007	15	18	6	39	58.6	10.2	31.2

Note: Shares are percentages of total assets in the banking sector.

⁷ See Canevi and Cetinkaya (2001), Steinherr et al. (2004), Kibritcioglu (2005), and Yildirim (2008) for further information on banking in Turkey, bank regulation and its political background.

⁸ As of January 2010, available at <http://www.tbb.org.tr/english/>.

⁹ State-owned investment banks are included in our analysis (while private and foreign investment banks are excluded) as the state-owned investment banks' lending activities may be fungible with those of their deposit-taking counterparts.

Table 2
Descriptive statistics: Turkish banks, 1963–2007.

	Definition	μ	σ	N
$Deposit_t/TA_t$	Deposits over total assets	0.455	0.282	2155
$Loan_t/TA_t$	Loans over total assets	0.288	0.183	2060
$Bond_t/TA_t$	Government securities over total assets	0.039	0.067	2154
$Margin_t$	Interest margin over total assets	0.038	0.059	2019
$IntExp_t/TA_t$	Interest expenditures over total assets	0.047	0.049	2019
$IntRev_t/TA_t$	Interest revenues over total assets	0.083	0.058	2155
$DepositGrowth_t$	Deposits growth	0.137	0.534	1817
$LoanGrowth_t$	Loan growth	0.129	0.915	1963
$BondGrowth_t$	Government securities growth	0.122	1.480	1806
$Equity_t/TA_t$	Net worth over total assets	0.172	0.186	2155
$\log(TA_t)$	Log of total assets	14.211	2.344	2155
$State_t$	One if state banks and zero otherwise	0.217	0.412	2158
$Foreign_t$	One if foreign bank and zero otherwise	0.234	0.423	2158
$Election_t$	One if election year and zero otherwise	0.244	0.430	2158
$Recession_t$	One if recession year and zero otherwise	0.115	0.319	2158
$Coup_t$	One if coup 1980–1982 and zero otherwise	0.059	0.235	2158

N is sample size, while σ and μ represent its standard deviation and mean, respectively.

Table 3
Descriptive statistics: bank variables over election cycles, 1963–2007.

	Before elections			Elections		
	μ	σ	N	μ	σ	N
$Deposit_t/TA_t$	0.456	0.281	470	0.458	0.278	526
$Loan_t/TA_t$	0.272	0.177	453	0.292	0.187	504
$Bond_t/TA_t$	0.040	0.070	470	0.038	0.070	526
$Margin_t$	0.036	0.059	442	0.034	0.059	495
$IntExp_t/TA_t$	0.047	0.050	442	0.046	0.048	495
$IntRev_t/TA_t$	0.081	0.059	470	0.080	0.055	526
$DepositGrowth_t$	0.038	0.486	414	0.161	0.502	459
$LoanGrowth_t$	-0.012	0.902	449	0.137	0.891	494
$BondGrowth_t$	0.172	1.467	429	-0.026	1.477	442
$Equity_t/TA_t$	0.157	0.165	470	0.170	0.186	526
$\log(TA_t)$	14.268	2.312	470	14.341	2.347	526
$State_t$	0.211	0.408	470	0.213	0.409	527
$Foreign_t$	0.232	0.423	470	0.247	0.431	527
	After elections			Benchmark		
	μ	σ	N	μ	σ	N
$Deposit_t/TA_t$	0.456	0.283	521	0.465	0.284	544
$Loan_t/TA_t$	0.298	0.188	496	0.292	0.177	522
$Bond_t/TA_t$	0.039	0.063	521	0.043	0.069	544
$Margin_t$	0.043	0.068	484	0.038	0.051	513
$IntExp_t/TA_t$	0.051	0.050	484	0.049	0.048	513
$IntRev_t/TA_t$	0.090	0.063	521	0.084	0.055	544
$DepositGrowth_t$	0.227	0.607	444	0.117	0.509	483
$LoanGrowth_t$	0.146	0.941	479	0.236	0.919	516
$BondGrowth_t$	0.263	1.556	421	0.105	1.388	493
$Equity_t/TA_t$	0.177	0.185	521	0.158	0.178	544
$\log(TA_t)$	14.220	2.354	521	14.288	2.280	544
$State_t$	0.217	0.413	521	0.233	0.423	544
$Foreign_t$	0.242	0.429	521	0.219	0.414	544

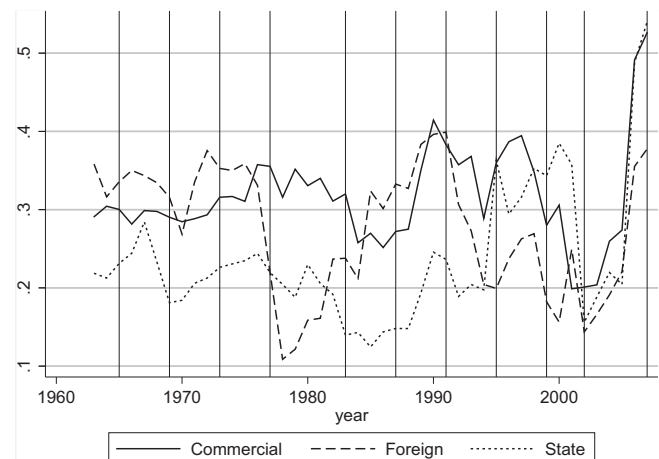
N is sample size, while σ and μ represent its standard deviation and mean, respectively.

margin ($Margin_t$) and lend 28.8% of assets ($Loan_t/TA_t$) over the entire sample. Furthermore, we observe that banks enjoy positive growth rates (in real terms) of deposits ($DepositGrowth_t$), loans ($LoanGrowth_t$) and government securities holdings ($BondGrowth_t$).

Table 3 presents the basic descriptive statistics of our variables to give a flavor of the evolution of our variables over different stages of the election cycle. The table is composed of four panels

to provide information on the variables over four different periods in an election cycle. These periods are the year before the election, the election year, the year after the election, and the year that is non-adjacent to those 3 years (the most remote year from the election), which we call the benchmark year. Turkish banks exhibit a higher mean share of government securities-to-assets (4.3%) in non-adjacent (benchmark) years. The average deposit-to-asset ratio is highest in the benchmark years as well: 46.5%. Interestingly, Turkish banks decrease their loan growth rate in pre-election years (-1.2%). Similarly, in line with the growth rate of loans, banks' loan-to-asset ratios are lowest in pre-election years. The behavior of loan dynamics over election cycles could be explained by more cautious lending behavior in pre-election years. Also, compared with the election periods, the growth of government securities holdings in pre-election years is significantly higher, as the government, in need of funds to finance pre-election activities, issues attractive securities. To sum up, there is casual evidence that election cycles may have an impact on banks' behavior.

We next present a visual inspection of the evolution of some of these variables across bank types, as our aim is to understand the behavior of different bank types over election cycles. In Fig. 1 we plot the average loan-to-asset ratio for three types of banks: domestic commercial, foreign-owned, and state-owned, with election years highlighted. From 1963 to 1994, we find that state-owned banks had the lowest lending share with respect to their total assets. However, as of 1988 the loan-to-asset ratio of state-owned banks starts to increase: after 1998, to around 0.38. Since then, on average, state-owned banks' loan-to-asset ratios have been higher than those of other bank types in most years. This is understandable as state-owned banks played an important role in the development of various industries and small businesses starting with the implementation of financial restructuring in the 1990s. The 1980–1990 period was also characterized by an increase in the number of foreign banks with a presence in the Turkish banking sector (see also Table 1). As we can see from Fig. 1, bank loans dropped significantly during the financial crisis and recession of 2001, after which credit volume increased substantially. This significant increase in lending is due to a move towards consumer banking, increases in consumer credit and credit cards and a reduction in the amount of government securities held. In particular, government securities lost their appeal, as the government's public-sector restructuring programme in late 1999 led to a fall in double-digit inflation and interest rates when monetary growth was strictly limited to net domestic assets of the central bank (see Akçay, 2001).

**Fig. 1.** Dynamics of $Loan/TA$: election years highlighted.

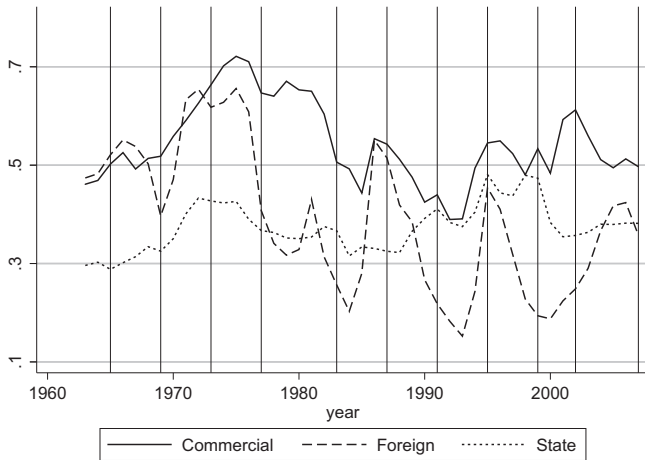


Fig. 2. Dynamics of *Deposit/TA*: election years highlighted.

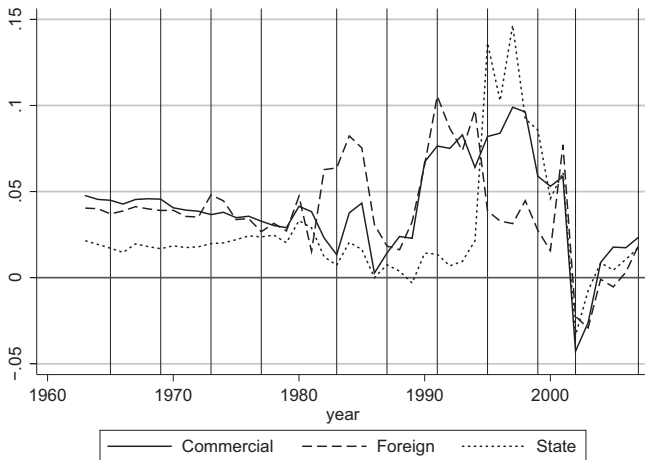


Fig. 3. Dynamics of interest margin: election years highlighted.

Fig. 2 plots the evolution of average deposit-to-asset ratios for each type of bank. We see that domestic commercial banks have a higher average deposit ratio compared to their state-owned and foreign-owned counterparts. This is mainly due to the fact that domestic commercial banks have extended their branches throughout the country and they offer several services that are competitive with state-owned banks' offerings.¹⁰ In contrast, foreign-owned banks' presence is confined to the largest cities, with a much lower emphasis on retail banking. Fig. 3 depicts the behavior of the average interest margin for all banks. Notice that there is almost no difference in the interest margin between domestic commercial and foreign-owned banks in the 1960s and 1970s, during which this measure was very low at times for all banks. This is not surprising as prior to 1980 banks' activity in financial markets was very limited. There was little competition between banks as interest rates were controlled by the government. Furthermore, the 1973–1974 oil crises had quite negative effects in Turkey. With the implementation of a financial reform programme in the 1980s, competition amongst banks became more common. Given their expertise and knowledge in financial markets, foreign-owned banks were able to improve their interest margin substantially, while their competing domestic counterparts followed suit. As expected, state banks' per-

formance trailed that of private-sector banks until the mid-1990s.¹¹ By then, state banks' interest margin caught up with foreign and domestic banks during a period of consolidation through mergers and increasing efficiency in the private-sector.

While providing interesting insights, the descriptive analysis of these figures and the statistics presented in Tables 2 and 3 alone cannot provide a full account of Turkish banks' behavior over election cycles, as they do not control for several confounding factors. Hence, we subject the data to a rigorous empirical investigation to understand how different bank types' behavior may have differed over election cycles. In the next section, we describe the econometric strategy that we employ to investigate the effects of election cycles on state-owned versus private-sector bank behavior.

4. Empirical model and results

As we document in the previous section, Turkish banks' financial ratios and their growth rates appear to vary around the dates of parliamentary elections. Graphs of some of these ratios also give the impression of the presence of differences across bank types. Some of the cyclical movements visible in Figs. 2 and 3 could be due to electoral cycles. To quantify the presence of differences between bank types and to determine whether election cycles have an impact on bank behavior across bank types, we use a variant of a dynamic empirical specification proposed by earlier researchers. The main difference in our approach is the introduction of a set of election-timing dummies to capture the dynamics of bank behavior over election cycles, rather than merely focusing on election years. We also interact the election-timing dummies with bank type to observe potential differences across bank types. Our model takes the following form:

$$Y_{it} = \alpha_0 + \alpha_1 Y_{it-1} + \zeta_1 State_{it} + \zeta_2 Foreign_{it} + \mathbf{E}_t \beta + State_{it} \mathbf{E}_t \xi_1 + Foreign_{it} \mathbf{E}_t \xi_2 + \mathbf{Z}_{it} \gamma + \lambda_t^E + v_i + \varepsilon_{it},$$

where i and t denote bank and time indices, respectively and β , ξ_1 and ξ_2 are vectors of coefficients on the election-timing indicators and their interactions with bank type. The dependent variables in our investigation, Y_{it} , include a set of bank finance ratios, the growth rates of several variables and bank performance measures. These include the loan-to-asset ($Loan_{it}/TA_{it}$), deposit-to-asset ($Deposit_{it}/TA_{it}$) and securities-to-asset ($Bond_{it}/TA_{it}$) ratios to model the changes in the asset and the liability sides of the banks' balance sheet. We also scrutinize loan growth rates ($LoanGrowth_{it}$) as well as deposit and securities growth rates ($DepositGrowth_{it}$, and $BondGrowth_{it}$, respectively). Finally, we investigate several performance measures including the interest margin ($Margin_{it}$), interest revenues ($IntRevenue_{it}$) and interest expense ($IntExpense_{it}$). To allow for persistence in the behavior of the dependent variable, reflecting continuity in banks' financial policies, we include the lagged dependent variable, Y_{it-1} in our regression model. We control for the effects of other factors, including a vector of bank-level and country-level variables (denoted by \mathbf{Z}), as described below. $State_{it}$ ($Foreign_{it}$) is an indicator variable which equals one if the bank is state- (foreign-) owned at time t and zero otherwise. Bank fixed effects are captured by v_i , and ε_{it} denotes the error term.

The key variables of interest are a set of election-timing dummies, denoted as \mathbf{E} , which include three indicator variables: $Election_t$, $Election_{t-1}$, and $Election_{t+1}$. The first dummy variable is equal to one if parliamentary elections took place at time t and zero otherwise. Similarly, years before the elections and after the

¹¹ These observations, which prompted many researchers to advocate privatization programmes, are in line with the findings of Bonin et al. (2005). In particular, they show that state-owned banks substantially underperform private-sector bank performance.

¹⁰ State-owned banks also have a wide presence throughout the country.

elections are captured by $Election_{t-1}$ and $Election_{t+1}$ dummies, respectively. The coefficients of these variables allow us to compare the effects of election cycles on the dependent variables of interest. The interactions of these variables with $State_{it}$ and $Foreign_{it}$ allow us to test whether election cycles' effects are related to the bank types, as reflected in the magnitudes and significance of the ξ_1 and ξ_2 coefficients.

The elements of vector \mathbf{Z} control for bank-specific and macroeconomic characteristics that influence banks' policies. The choice of our control variables is motivated by earlier research which investigate bank lending and performance in time series or panel data settings.¹² To control for economies of scale, we include the natural log of real total assets ($\log(TA_{it})$). The financial strength of a bank is measured by its net worth normalized by total assets ($Equity_{it}/TA_{it}$). In addition, we introduce two variables to control for macroeconomic factors that may affect bank behavior: recession and coup dummies, $Recession_t$ and $Coup_t$, respectively.¹³

Although our specification takes into account some of the macroeconomic factors that might affect banks' performance, there may be other important influences. Dealing with these poses two challenges. First, consistent series of macroeconomic aggregates are not available in the earlier years of our sample period. Second, even if appropriate data were readily available, any set of macroeconomic factors could be argued to be incomplete, thus imperfectly addressing issues of omitted-variables bias. Given the nature of our specification, we cannot adopt the usual remedy of fixed time effects, as the election-timing dummies in \mathbf{E} and macro dummies in \mathbf{Z} would be collinear with time effects. Therefore, in order to capture the importance of time-varying macroeconomic effects, we introduce a set of election cycle dummies, λ_t^E . These indicators are defined for each of the eleven election cycles, including the two years after each election year.¹⁴ The specification contains ten of these indicators. In the empirical results, an F -test for the null hypothesis that their coefficients are jointly zero is presented. We always reject that null, suggesting that there are significant macro factors (over and above those in \mathbf{Z}) captured by election cycle dummies.

We estimate the model with the one-step system dynamic panel data (DPD) estimator. System DPD combines equations in differences of the variables with equations in levels of the variables. In this system GMM approach (see Blundell and Bond, 1998), lagged levels are used as instruments for differenced equations and lagged differences are used as instruments for level equations. The models are estimated using a first difference transformation to remove the individual firm effect. The set of instruments includes from second to fourth lags of levels of bank-specific variables for difference equations, and second lags of differences of bank-specific variables for level equations. Macroeconomic characteristics are treated as exogenous.

The reliability of our econometric methodology depends crucially on the validity of the instruments, which can be evaluated with Hansen's test of overidentifying restrictions, asymptotically distributed as χ^2 in the number of restrictions. A rejection of the null hypothesis that instruments are orthogonal to errors would indicate that the estimates are not consistent. We also present test statistics for first-order and second-order serial correlation in the error process. In a dynamic panel data context, we expect first-order serial correlation, but should not be able to detect second-order

serial correlation if the instruments are appropriately uncorrelated with the errors.

4.1. Empirical findings

We present our results in three sets of tables. Our first set of results considers the effects of elections on bank financial variables. The second table depicts our results on how growth rates of bank loans, deposits and securities holdings evolve through election cycles. The last set of results concentrate on the relationship between election cycles and bank performance. Our main focus, throughout the discussion, will be on the sign, size and significance of the coefficients associated with the election dummies and their interactions with bank type dummies. For all models discussed in the following subsection, the Hansen statistic for overidentifying restrictions and the Arellano–Bond $AR(2)$ tests shows that, at the 5% significance level, our instruments are appropriately orthogonal to the error and no second order serial correlation is detected, respectively. Hence, we do not make additional comments on those aspects of the estimates.

Table 4
Models of $Loan/TA$, $Deposit/TA$ and $Bond/TA$, 1963–2007.

	$Loan_t/TA_t$	$Deposit_t/TA_t$	$Bond_t/TA_t$
$Equity_t/TA_t$	−0.028 (0.036)	−0.188 *** (0.054)	−0.022 (0.015)
$\log(TA)_t$	0.007* (0.004)	0.002 (0.007)	0.003 (0.002)
$Recession_t$	−0.043 *** (0.011)	0.034 *** (0.008)	0.010 (0.003)
$Coup_t$	0.019 (0.014)	0.002 (0.015)	−0.015 (0.005)
$State_t$	−0.047** (0.018)	−0.028 (0.043)	−0.019 (0.010)
$Foreign_t$	−0.013 (0.014)	−0.103 (0.045)	0.027 (0.014)
$Election_{t-1}$	−0.023 (0.007)	0.014 (0.007)	0.006 (0.003)
$Election_t$	−0.007 (0.008)	0.014 (0.009)	0.002 (0.003)
$Election_{t+1}$	−0.016 (0.008)	0.036 *** (0.007)	0.004 (0.003)
$Election_{t-1} \times State_t$	0.013 (0.012)	−0.011 (0.009)	−0.006 (0.005)
$Election_t \times State_t$	−0.016 (0.014)	−0.016 (0.010)	−0.002 (0.005)
$Election_{t+1} \times State_t$	0.025 (0.018)	−0.021 ** (0.008)	0.000 (0.005)
$Election_{t-1} \times Foreign_t$	−0.013 (0.017)	−0.029 (0.020)	−0.003 (0.006)
$Election_t \times Foreign_t$	−0.015 (0.015)	−0.010 (0.023)	0.002 (0.010)
$Election_{t+1} \times Foreign_t$	0.028 (0.019)	−0.030 * (0.017)	0.012 (0.007)
$Loan_{t-1}/TA_{t-1}$	0.703 *** (0.036)		
$Deposit_{t-1}/TA_{t-1}$		0.656 *** (0.043)	
$Bonds_{t-1}/TA_{t-1}$			0.602 *** (0.032)
Bank-years	1871	1969	1968
Banks	84	86	86
Hansen p -val	1.000	1.000	1.000
Hansen d.f.	493	381	381
$AR(2)$ p -val	0.113	0.481	0.316
F -test p -val	0.00	0.00	0.00

Robust standard errors are given in parentheses. Election cycle dummies and a constant term are included but not reported. F -test considers the joint significance of 10 election cycle dummies.

* $p < 0.10$.

** $p < 0.05$.

*** $p < 0.01$.

¹² See, for instance, Demirgüç-Kunt and Huizinga (1999), Saunders and Schumacher (2000) or Arena (2008).

¹³ Throughout the sample period, Turkey experienced recessions in 1979, 1980, 1994, 1999, and 2001, while a military coup took place in 1980–1982. Thanks to remittances from Turkish “guest workers” (gastarbeiters) in Germany and other European countries, the Turkish economy did not experience a downturn in the 1960s or early 1970s.

¹⁴ Given the irregular timing of elections, it is not always possible to include 2 years following the election year.

4.1.1. Bank financial ratios

Table 4 evaluates the impact of the election cycle on the loan-to-asset, deposit-to-asset and securities-to-assets ratio. The first column gives the regression results for the loan-to-asset ratio. In this column we see that the *State* dummy is negative and significant. This indicates that state-owned banks have lower loan-to-asset ratios. The election dummies are negative and more so during the year before the election than in the election year. One year after the election, the election dummy is also negative, and the magnitude of its effect is about two-thirds of that of the pre-election period. This implies that banks reduce their loan-to-asset ratios during and around the election year which may be due to a perception of an increased risk to lending. When we consider whether banks' behavior over the election cycle differ from one another, we find no difference in the behavior of loan-to-asset ratios across bank types over the cycle. During the post-election year, foreign-owned and state-owned banks' ratios increase slightly in comparison to those of domestic private-sector banks, which can be explained by the desire to expand operations after the elections. However, neither the size nor the significance level of the relevant coefficients imply a significant divergence across bank types.

The lack of differences in the loan-to-asset ratio across bank types over the election cycle is an interesting finding due to the fact that the banking literature generally has claimed that state-owned bank loans grow more than those of other bank types, suggesting the existence of politically motivated lending. Although our results consider the level of the loan-to-asset ratio rather than its growth, we find that state-owned banks' ratios do not differ from those of domestic commercial or foreign-owned banks. This is an interesting observation to which we return when we investigate the behavior of loan growth over the election cycle. Finally, the coefficient of the *Recession* dummy is negative as one would expect, signaling that during downturns bank loans decline.

The next column presents results for the deposit-to-asset ratio. We find that foreign-owned banks' ratios are lower than those of state-owned banks and domestic private-sector banks. While banks' deposit-to-asset ratios do not change in the election year, in the year thereafter, the deposit-to-asset ratio more than doubles in comparison to the pre-election year value. Although we do not have the detailed balance sheet data to further our claim, it seems that the public put their savings in other instruments such as foreign currencies or gold, both of which are traditional savings instruments in Turkey, in the election year. This claim can be rationalized by savers' desire to lessen the impact of potential economic volatility due to uncertainties about the elected government's economic programme. Considering the impact of election cycles on the deposit-to-asset ratio, the ratio decreases for state-owned and foreign-owned banks in comparison to private banks in the post-election year. Finally, the coefficient of the *Recession* dummy is positive signaling that the public deposit their savings in safe havens during recessions.

The last column considers the behavior of the securities-to-asset ratio over the election cycle. During the pre-election year banks seem to increase their government bond holdings, but we find no difference between domestic private-sector and state banks over any point in the election cycle. We also find that state-owned (foreign-owned) banks hold fewer (more) government securities in comparison to domestic banks. Finally, we see that banks reduced their bond-to-asset ratio during the coup years, when banks were first allowed to broaden their asset holdings during financial liberalization, and increased it during the recessionary episodes per expectations.

4.1.2. Growth in loans, deposits and bond holdings

We next investigate how the growth rates of loans, deposits and bond holdings evolve around the parliamentary election years. The

literature concentrates on loan growth regressions to compare the differences in lending behavior of state-owned versus private-sector banks across election and non-election years.¹⁵ The first column of Table 5 shows that loan growth is significantly lower for state-owned banks. We do not detect any differences in loan growth rates between private-sector domestic and foreign-owned banks. Yet, observing the election dummies for the year before the election, we see that the loan growth rate declines substantially for all banks. This decline is further observed for foreign-owned banks during the election year. However, state-owned banks and domestic private-sector banks do not alter their loan growth rate over the election cycles. In particular, state-owned banks do not systematically increase their lending during elections in comparison to other banks in the financial system. This result is in sharp contrast to that of Dinç (2005) who shows that state-owned banks increase their loans during election years and claim that political motivations influence this behavior.

Given that Dinç's results are based on cross-country panel regressions, it is possible that some influential outliers or the presence of accounting differences in reporting across countries may have played a role in his findings. It is also possible that his results are driven by the choice of banks included in the regressions.¹⁶ Equally, the time period during which he studied the phenomena may have an impact on his findings. In our case, by concentrating on a single country, we can clearly observe that Turkish state-owned banks do not change their lending behavior vis-à-vis that of private-sector banks. As expected we find that during recessionary episodes loan growth was reduced and during the period of military rule it increased substantially as discussed above.

Column two of the same table provides regression results for the deposit growth rate. Deposit growth rates are higher in the election year and the following year compared to the benchmark year. However, we do not find any differences in the deposit growth rate across different bank types over election cycles.

The third column of Table 5 depicts our findings for the securities growth rate. As in the case of deposit growth rates, we find no difference across bank types in this growth rate. During the election years all banks seem to decrease their holdings of government bonds. However, while state banks' growth rates are significantly higher than the other two bank categories in the election year, the bond growth rate of foreign-owned banks declines significantly in the pre-election year. Their reduction of growth of government bond holdings during the pre-election period can be rationalized by those banks' desire to reduce exposure to risky government debt.

4.1.3. Bank performance indicators

Table 6 presents the effects of elections on interest rate margin and its two components: the interest revenue and interest expense ratios. The first column of the table presents our results for the interest margin. We can observe that the coefficient associated with state-owned banks is significantly negative. This implies that the state-owned banks' interest rate margin is the lowest. In fact the literature has pointed out the inefficiencies of state banks and recommended their privatization. We also find that in all three (pre-election, election and post-election) years, banks' interest margin declines relative to the benchmark year. However, we do not see significant differences across different election stages; although all coefficients on the election dummies are negative

¹⁵ Section 1.1 provides an overview of the inefficiencies that both developing and emerging countries face due to political pressures. More specifically see Micco et al. (2007), Cole (2009), and Dinç (2005) who discuss how banks' lending behavior during election periods may bend to political will.

¹⁶ Although the panel data Dinç uses includes a large number of countries, it does not necessarily cover all banks that play an important role in each country.

Table 5
Models of *GrowthLoan*, *GrowthDeposit* and *GrowthBond*, 1963–2007.

	<i>GrowthLoan_t</i>	<i>GrowthDeposit_t</i>	<i>GrowthBond_t</i>
<i>Equity_t/TA_t</i>	0.635 (0.484)	−0.848 [*] (0.441)	0.805 (0.590)
<i>log(TA)_t</i>	0.084 (0.056) ^{***}	0.019 (0.028)	0.031 (0.090)
<i>Recession_t</i>	−0.379 ^{***} (0.103)	−0.011 (0.052)	0.195 (0.121)
<i>Coup_t</i>	0.399 [*] (0.188) [*]	0.054 (0.075)	−0.717 (0.169)
<i>State_t</i>	−0.586 (0.327)	−0.156 (0.106)	−0.454 (0.316)
<i>Foreign_t</i>	0.057 (0.382) ^{***}	−0.211 (0.200)	−0.486 (0.356)
<i>Election_{t−1}</i>	−0.147 (0.049)	0.020 (0.030) ^{***}	0.205 (0.132) ^{**}
<i>Election_t</i>	0.030 (0.067)	0.123 (0.044) ^{***}	−0.272 (0.134)
<i>Election_{t+1}</i>	−0.047 (0.072)	0.177 (0.045)	−0.076 (0.157)
<i>Election_{t−1} × State_t</i>	0.073 (0.111)	−0.041 (0.053)	−0.227 (0.209)
<i>Election_t × State_t</i>	−0.077 (0.136)	−0.048 (0.057)	0.345 (0.199)
<i>Election_{t+1} × State_t</i>	0.230 (0.144)	0.039 (0.075)	0.319 (0.283) ^{**}
<i>Election_{t−1} × Foreign_t</i>	−0.234 (0.170) ^{**}	−0.183 (0.116)	−0.516 ^{**} (0.240)
<i>Election_t × Foreign_t</i>	−0.282 (0.129)	−0.040 (0.093)	−0.042 (0.199)
<i>Election_{t+1} × Foreign_t</i>	−0.000 (0.109) ^{***}	−0.072 (0.108)	0.328 (0.242)
<i>GrowthLoan_{t−1}</i>	−0.270 (0.054)		
<i>GrowthDeposit_{t−1}</i>		−0.107 ^{**} (0.053)	
<i>GrowthBonds_{t−1}</i>			−0.215 ^{***} (0.043)
Bank-years	1779	1661	1645
Banks	84	75	81
Hansen <i>p</i> -val	1.000	1.000	1.000
Hansen d.f.	364	361	364
AR(2) <i>p</i> -val	0.837	0.744	0.064
<i>F</i> -test <i>p</i> -val	0.01	0.00	0.00

Robust standard errors are given in parentheses. Election cycle dummies and a constant term are included but not reported. *F*-test considers the joint significance of 10 election cycle dummies.

^{*} *p* < 0.10.

^{**} *p* < 0.05.

^{***} *p* < 0.01.

and statistically significant, they do not differ significantly from one another. Likewise, we do not detect significant differences across bank types over election cycles.

Column two of the table presents the behavior of the interest revenue-to-asset ratio. As in the case of interest margin, state-owned banks' interest revenue ratios are significantly lower than those of domestic private-sector or foreign-owned banks. In the year of the election, interest revenues fall for all banks, increasing in the post-election year. We also find some slight differences across bank categories in banks' interest revenues over election cycles. For instance, foreign banks have lower interest revenues in the pre-election year, which might be explained by a decrease in lending activities. Finally, column three depicts the impact of election cycles on banks' interest expense-to-asset ratios. We find that state-owned and domestic banks' ratios are indistinguishable from each other, whereas foreign-owned banks have much lower ratios, perhaps reflecting their broader access to funding. Given this finding, it is evident that the state banks' interest margin is lowest among all bank types due to the fact that their interest revenues are very low. It is likely to be the case that state banks are allowed

Table 6
Models of *Margin*, *IntRevenue/TA* and *IntExpense/TA*, 1963–2007.

	<i>Margin_t</i>	<i>IntRevenue_t/TA_t</i>	<i>IntExpense_t/TA_t</i>
<i>Equity_t/TA_t</i>	0.056 ^{**} (0.022)	0.005 (0.015)	−0.047 ^{***} (0.013)
<i>log(TA)_t</i>	0.001 (0.003)	0.002 (0.002) ^{***}	−0.000 (0.002) ^{***}
<i>Recession_t</i>	−0.005 (0.006)	0.013 (0.004) ^{***}	0.019 (0.003)
<i>Coup_t</i>	0.005 (0.005) ^{**}	−0.030 (0.006) ^{***}	−0.036 (0.005)
<i>State_t</i>	−0.055 ^{**} (0.023)	−0.060 (0.014)	−0.009 (0.015) ^{**}
<i>Foreign_t</i>	0.021 (0.014) ^{**}	−0.021 (0.014)	−0.031 (0.012) ^{**}
<i>Election_{t−1}</i>	−0.005 (0.002) ^{***}	0.002 (0.003) ^{***}	0.008 (0.002)
<i>Election_t</i>	−0.008 (0.003) ^{**}	−0.009 (0.003) ^{***}	0.000 (0.003) ^{***}
<i>Election_{t+1}</i>	−0.008 (0.003)	0.012 (0.004)	0.018 (0.002)
<i>Election_{t−1} × State_t</i>	0.002 (0.004)	−0.001 (0.004)	−0.003 (0.003)
<i>Election_t × State_t</i>	0.002 (0.005)	0.005 (0.004)	0.002 (0.004) ^{**}
<i>Election_{t+1} × State_t</i>	0.000 (0.005)	−0.007 (0.006) ^{**}	−0.007 (0.003)
<i>Election_{t−1} × Foreign_t</i>	−0.011 (0.007)	−0.010 (0.004)	−0.004 (0.004)
<i>Election_t × Foreign_t</i>	−0.002 (0.006)	0.003 (0.004)	0.003 (0.004) ^{**}
<i>Election_{t+1} × Foreign_t</i>	0.012 (0.010) ^{***}	0.002 (0.007)	−0.009 (0.004)
<i>Margin_{t−1}</i>	0.464 (0.045)		
<i>IntRev_{t−1}/TA_{t−1}</i>		0.412 ^{***} (0.045)	
<i>IntExp_{t−1}/TA_{t−1}</i>			0.387 ^{***} (0.042)
Bank-years	1809	1969	1809
Banks	85	86	85
Hansen <i>p</i> -val	1.000	1.000	1.000
Hansen d.f.	371	381	371
AR(2) <i>p</i> -val	0.447	0.301	0.492
<i>F</i> -test <i>p</i> -val	0.00	0.00	0.00

Robust standard errors are given in parentheses. Election cycle dummies and a constant term are included but not reported. *F*-test considers the joint significance of 10 election cycle dummies.

^{**} *p* < 0.05.

^{***} *p* < 0.01.

to lend at a loss to potential borrowers. When we consider differences across banks over election cycles, we see that state- and foreign-owned banks' interest expense ratios are lower than those of domestic private banks during the post-election year.

For the interest revenue and interest expense regressions, we observe that the coefficient of the *Recession* dummy is positive and that of the *Coup* dummy is negative. These results are intuitive and we do not elaborate further.

4.2. Robustness checks

We extend our analysis by examining whether our key results are robust to changes in instrument set and sub-periods. As explained in Section 3, our set of instruments includes the second and third lags of levels of bank-specific variables (including ownership) for difference equations, and the second and fourth lags of differences of bank-specific variables for level equations. We also experimented with instrument sets which include up to six lags of bank-dependent variables in both level and difference equations, but this did not affect our main results.

Furthermore, we check the consistency of our results by concentrating on the 1980–2007 period. These 27 years include the 1980–1982 coup period, during which the military was in control of the country, as well as a substantial increase in the number of foreign banks and the financial crisis of 2000. Our results (available upon request) for this period are similar to those reported in Tables 4–6 and are not reported for the sake of brevity.

5. Conclusions

The recent literature has investigated state-owned versus private-sector banks' lending activities to scrutinize the impact of elections on banks' behavior. This paper extends the question and asks if bank behavior changes meaningfully over the full election cycle, rather than focusing on election versus non-election years. If so, is there a difference between state-owned versus private-sector (domestically or foreign-owned) banks' reactions to election cycles? In our investigation we specifically concentrate on several bank financial ratios and performance measures. To carry out our analysis, we utilize a bank panel data collected from Turkey over 1963–2007 including all banks in the financial sector.

The key variables of interest are a set of election-timing dummies, which capture the effects of the election year and pre- and post-election years on bank behavior. Inspecting the coefficients of election dummies as well as the interaction between election and bank type dummies, we investigate the impact of election cycles on banks and test for differences across different type of banks. A simple model captures the effects of election cycles on banks' loan, deposit and bond-to-asset ratios, the growth rates of these variables, and the changes in bank performance indicators in relation to election cycles.

Our results can be summarized as follows. We observe that Turkish election cycles significantly affect bank behavior. However, we do not find conclusive evidence that bank behavior differs across bank types as claimed in earlier research. In particular, we find no evidence that Turkish state-owned banks change their lending activities in comparison to other bank categories before, during or after elections. This is an interesting result on its own as several country-specific studies have found that state-owned banks behave differently during elections. Furthermore, we detect no effect of election cycles on deposit-to-asset and bond-to-asset ratios or their growth rates across banks.

The second set of results that we gather from our study points out that Turkish state-owned banks are less efficient than both domestic and foreign-owned private-sector banks. Although the state bank interest expense ratio is comparable to those of domestic and foreign-owned private-sector banks, the interest revenue ratios of state-owned banks are the lowest among all bank categories, rendering the interest margin minimal for the average state-owned bank. Given this finding, one may be tempted to recommend privatization of state-owned banks as Clarke et al. (2005) suggest. However, while world financial markets go through hardships that have not been experienced since the Great Depression and while many private enterprises are nationalized throughout the world, privatization of state-owned banks is not something to be recommended at this time.¹⁷ Yet it is advisable that state-owned banks should operate in a more transparent mode so as not to be subject to accusations or criticism related to funds being channeled towards projects that benefit the governments or those related to government officials.

¹⁷ We must note that, over the last 50 years, several state-owned banks in Turkey were privatized with the premise that funds will be allocated to potential investors more effectively and efficiently. Those state-owned banks that currently operate in Turkey fulfill specific roles that are not satisfied by private-sector banks.

Although we arrive at similar conclusions to earlier research on the relative inefficiency of state-owned banks, one may ask why our results differ regarding the behavior of state-owned banks over electoral cycles. There are several possible reasons. First, our empirical model differs from those proposed in earlier research as we consider whether electoral cycles affect bank behavior rather than the narrower question of whether bank behavior differs between election and non-election years. Second, earlier research based on cross-country panel data has employed a smaller subset of country-specific bank data. If many banks are omitted from the analysis, this can lead to misleading results as the data suffer from sample selection bias. The possibility of accounting differences across countries may be another potential problem leading to biased results. Alternatively, in Turkey, while state-owned banks are prone to common problems of inefficiency, they may not be receiving directives from the government to channel more funds into the economy during election cycles as may be more common in other developing countries. Yet, it may still be informative to carry out a similar investigation for Turkish banks using a more detailed dataset. Given our evidence on the behavior of state-owned banks versus private-sector banks in Turkey, we think that a detailed analysis would be useful to evaluate the impact of election cycles on bank lending in other developed or developing economies.

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