Elections, Political Competition and Bank Failure

Liu, Wai-Man and Ngo, Phong

Australian National University

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Wai-Man Liu
Australian National University

Phong Ngo†
Australian National University

Abstract

We model and predict that politicians have incentives to delay bank failure in election years and that this incentive is exacerbated if the election is close. Our empirical application using the US data supports these predictions. At the bank level, we show that bank failure in an election year is four times less likely to occur if the election was among the most competitive (top quartile). At the state level, bank failure is about 1.8 times less likely to occur in an election year. A three point swing in the competitiveness of the election increases this election year bias to 2.2.

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†Phong Ngo: College of Business & Economics, Australian National University, Canberra, ACT 0200 Australia; Tel: +61 2 6125 1079; Email: phong.ngo@anu.edu.au. Raymond Liu: College of Business & Economics, Australian National University, Canberra, ACT 0200 Australia; Tel: +61 2 61253471; Email: waiman.liu@anu.edu.au.

"In Washington, the view is that the banks are to be regulated, and my view is that Washington and the regulators are there to serve the banks."

Rep. Spencer Bachus - chairman of the House Financial Services Committee in the 112th Congress[1]

1 Introduction

The relationship between banking and politics is an intimate one. Governments control the supply of banks in the economy through chartering restrictions and licensing, they set up institutions that provide depositors with insurance and banks with a lender of last resort, and routinely set rules that attempt to govern the risk takingbehavior of banks. This active role of government in the banking sector creates an incentive problem: on the one hand, governments play a role in the creation of institutions that make a banking system possible, while on the other hand they quite often look to the banking system as a source of finance to facilitate its own political survival. This financing can be indirect, through say, subsidized lending to preferred industries or direct in the form of campaign contributions or a share of profits due to ownership. For example, according to the Center for Responsive Politics, Spencer Bachus, who is the chairman of the House Financial Services Committee in the 112th Congress, raised over $2.3 million in campaign funds in 2011-2012 with the top five industries being commercial banks, securities and investment, insurance, real estate and finance/credit companies contributing over 40 percent. On the government ownership of banks, see La Porta et al. (2002) for evidence of pervasive state ownership of banks around the world.

So, while a healthy banking system can be huge source of benefit for politicians, bank failure can get politicians into electoral hot water. Bank failure typically leads to costs that are bourne by the taxpayer (due to losses to the insurance fund), leading the electorate to

[1] Quoted from an interview with The Birmingham News on 8 December 2010, one month after cruising to victory in the general election facing no opponent. He had also previously won his 2010 primary with 76% of the vote.

question the competency of the incumbent in regulating the banking sector. Accordingly, politicians have the incentive to take costly action to delay bank failure - or more precisely, delay regulatory intervention to close a failing bank. The economic cost of delay (possibly from larger losses to the insurance fund than would otherwise be the case) is widespread across tax payers, whereas the benefits are concentrated with interest groups like bank owners, employees and uninsured depositors - which further exacerbate the political incentive to delay bank failure in an election year (see Stigler 1971, Peltzman 1976, Becker 1983 for more on interest groups).

There have been several examples in the popular press of political interference in the banking system. Probably the most famous case is that of Lincoln Savings and Loans, where five US senators[2] (known as the "Keating Five") were accused of improperly intervening in a regulatory investigation of Charles H. Keating, Jr. (Chairman of the Lincoln Savings and Loan Association) by the Federal Home Loan Bank Board (FHLBB) in 1987. Lincoln Savings and Loans eventually collapsed in 1989, at a cost of over $3 billion to the federal government. The substantial political contributions Keating had made to each of the senators, totaling $1.3 million, attracted considerable public and media attention leading to a Senate Ethics Committee investigation in which three of the senators were found to have "substantially and improperly interfered with the FHLBB's investigation" and the other two while being cleared were still criticized for exercising "poor judgement". All five senators served out their terms however only the two ran for re-election.[3] A more recent example is that of Cleveland thrift AmTrust, whose failure was delayed by 11 months because Ohio Congressman Steven LaTourette and Cleveland mayor Frank Jackson intervened when the FDIC tried to seize and sell the institution in January 2009.[4] By the time AmTrust was

[2] Alan Cranston (Democrat of California), Dennis DeConcini (Democrat of Arizona), John Glenn (Democrat of Ohio), John McCain (Republican of Arizona), and Donald W. Riegle, Jr. (Democrat of Michigan)

[3] John Glenn (Democrat of Ohio) and John McCain (Republican of Arizona) were cleared of the charges and re-ran for office.

[4] AmTrust was issued with a cease and desist order in November 2008, and when they failed to recapitalise by the deadline of December 31, 2008 the FDIC stepped in. The local politicians were able to delay the failure by convincing Treasury and the White House to keep the FDIC at bay.

finally seized by the FDIC on December 4, 2009 its common equity had fallen by $667 million to $276 million from the year before. The failure cost the FDIC insurance fund $2 billion.[5]

It is reasonable to ask whether these incidents are isolated cases or whether they are representative of a more systematic phenomenon. A natural place to look for systematic evidence of political interference in banking is around elections as this is when bank failure can potentially be the most costly to a politician. Accordingly, we develop a simple game-theoretic model to study the incentive for incumbent politicians to delay bank failure. Our model provides us with three predictions. First, we show that only in election years does there exist a Nash-equilibrium where politicians will delay bank failure. Second, our model also examines how the degree of political competition (i.e. how close the election is expected to be) changes the politician's incentive to delay. In particular, our model predicts that incumbent politicians are more likely to delay bank failure if the election is close. This comes from the fact that bank failure is assumed to reduce the likelihood of winning the election, which of course, becomes more important to prevent if the election is close. Finally, we show that politicians are more likely to delay small banks rather than large banks. This result occurs because, as the size of the failing bank grows, the private cost of delaying bank failure is increasing at a faster rate than the private benefits of delay.

Our empirical application tests these three predictions using data from the United States (US) between 1934 and 2012, covering all failed banks (3995) documented by the Federal Deposit Insurance Corporation (FDIC). We conduct the analysis both at the bank level and at the state level by exploiting the significant cross-state and within-state variation in political competition to explain the timing of bank failure around the election cycle. A consistent picture emerges: at the bank level, we find that banks operating in a politically competitive states are much less likely to fail in an election year. We also confirm our prediction that small banks bank failure is more likely to be delayed in an election year. At the state level, we show that the state election cycle is predictive of (a) the likelihood of bank

[5] See: http://blogs.reuters.com/rolfe-winkler/2009/12/08/politics-and-bank-regulation-dont-mix/

failure; and (b) the state bank failure rate - that is, both the likelihood of bank failure and the bank failure rate are lower in election years. Moreover, the impact of higher political competition is to exacerbate this negative relationship. Our results are robust to the level of analysis (bank vs. state), multiple model specifications and estimation techniques.

Our results are not only statistically significant but also economically meaningful. In the bank level regressions, we estimate the relationship between political competition and the timing of bank failure in a logistic regression, controlling for state level political factors (the political affiliation of the governor and the degree of democrat control in the state legislature), bank level factors (size, leverage, type of bank charter), failure characteristics (whether the failure resulted in a payout, merger or was an assisted transaction). The results show that bank failure is about 3.5 to 4 times less likely to occur in an election year if the bank operated in a state where political competition was in the top quartile. Moreover, small banks (those in the bottom size quartile) are 1.7 to 2 times less likely to fail in an election year when compared to larger banks.

At the state level, we use several strategies to assess the relation between the election cycle and the state bank failure rate. First, we use a logistic regression to determine whether an election year reduces the likelihood of observing any bank failure while controlling for state-level political and macroeconomic factors. The results indicate that bank failure is approximately 1.8 times less likely an election year. When we consider the interaction between election year and political competition this result is exacerbated. Consider a state in which there is in increase in political competition of 0.03, this movement represents an increase from our median value to the 75th percentile value for political competition and is equivalent to a three point swing in the vote margin from 55-45 to 52-48. This leads to an estimate for the magnitude of the overall impact of the election cycle on the likelihood of bank failure increasing from 1.8 to approximately 2.2 - that is, bank failure is 2.2 times less likely to occur in an election year if there has been a three point swing since the last election.

Second, we use the Tobit regression model to estimate the impact of election cycles and political competition on the state bank failure rate. For the full sample, the bank failure rate is 9 percent lower in election years than the unconditional mean. When the two major banking crisis years are excluded from the sample (the Savings and Loans Crisis from 1986 to 1992 and the Global Financial Crisis from 2007 to 2010), the bank failure rate is 500 percent lower in election years than the unconditional mean (for non-crisis years). Our coefficient estimates for the interaction term between political competition and our election year dummy suggest that the overall magnitude of the election year impact on bank failure increases by 20 and 55 percent for the full and non-crisis samples respectively when the level of political competition increases by 0.03.

Finally, to give an estimate of the likely economic cost of such delay in bank failure we study whether the loss rate (estimated cost to the FDIC insurance fund relative to bank assets at the time of failure) varies with the election cycle. We find that banks failing in election years have a loss rate that is approximately 5% less than those which fail in non-election years. Based on the average size of failed banks, this translates to about an extra $3 million in losses to the insurance fund (per failed bank) for banks failing in non-election years (i.e. delayed failures).

Our work is related to several streams of literature. First, our work is most related to a paper by Brown and Dinc (2005) who study electoral incentives to delay bank failure for a sample of 164 banks (40 of which failed) in developing countries between 1994-2000. They conduct their analysis at the bank level and show that bank failure is much less likely before an election. Our work complements and extends theirs in several ways. First, a key focus of our analysis is on political competition and its impact on bank failure during election years. Unlike Brown and Dinc (2005) we build a simple model to develop clear testable implications about the relation between elections, political competition and bank failure. Second, the long term nature of our study allows us to study longer term trends in political competition and its relation to bank failure. The long time series also provides us with a very large

sample of failed banks in comparison to their study. Third, their analysis is conducted for banks in developing countries where corruption is arguably more of a problem. In contrast, we study the bank failure in the US - a thriving democracy and the most developed nation in the world - and show that political incentives to delay bank failure near elections remains strong. Finally, we conduct our analysis both at the bank level and at the state level and show consistent results across both levels of analysis.

Second, our work relates directly to the early work arguing that politicians have incentives to take actions to induce favorable macroeconomic outcomes before elections (see for example, McRae (1977), Nordhaus (1975) and Rogoff and Sibert, 1988). More recent works by Levitt (1997, 2002) use election cycles to instrument for the number of police in his study of the relation between police and crime - arguing that politicians tend to hire more police prior to elections. Election cycles have also been used recently in the analysis of corporate investment decisions; Julio and Yook (2012) document a fall in corporate investment corresponding with timing of national elections around the world.

Third, this paper is related to a broad literature examining various aspects of the political economy of banking and bank regulation. Earlier work examining the role of politics and the incentives for regulators to intervene in failing banks' operations include Kroszner and Strahan (1996), who show that regulators deferred the realization of costs in failing Savings and Loan (S&L) associations in the United States. Kroszner and Strahan (1999) also study the political economy factors that determine the timing of state level relaxation of bank branching restrictions in the US and find that private-interest (or positive) theory of regulation (Stigler, 1971; and Peltzman, 1976) best explains the timing of branching deregulation. Rosenbluth and Schaap (2003) study how electoral rules (centrifugal vs. centripetal) shape the way politicians choose to regulate their national banking sectors and the resultant impact on market structure. Most recently, Dam and Koetter (2012) show that political factors determine the likelihood of bank bailout and therefore bank risk taking (moral hazard).

The next section develops our simple game-theoretic model. Section three discusses how the US election cycle works and provides some historical background on political competition and bank failure in the US. Section four outlines our empirical approach and presents our results. Section five concludes.

2 A Simple Model

Consider a simple static game played by two players on day t: (1) a political candidate from the incumbent party seeking re-election, and (2) an owner-manager of an under-capitalized bank that faces the risk of closure by the regulator.

First, let us look at the decision problem of the political candidate. Define v_i and v_j as the respective percentage share of the two-party vote received by candidate from the incumbent party (denoted by i) and the opposition (denoted by j) on the election day T, for $T > t$. The electoral margin, $\tilde{\phi} = v_i - v_j$, is a random variable and it is drawn from a uniform distribution: $\tilde{\phi} \sim U[-a, a]$, for $a \in [0, \frac{1}{2}]$. If the competition between the two parties is intense, the electoral margin is expected to be small, and hence the standard deviation of $\tilde{\phi}$, $\sigma_\phi = \frac{a}{\sqrt{3}}$ is small.

Let us assume that there are M banks and N depositors in the economy, and all voters have equal dollar amount of demand deposits (denoted by d) in these banks. Should the bank fail, each depositor is insured up to some specified limit, and this limit is less than their deposits. Prior to the election, one of the M banks is under-capitalized. The bank may or may not be closed down by the regulator depending on whether the bank is willing to take measures to recapitalize. If the bank fails to recapitalize, the regulator steps in and closes the bank down. When this happens, due to under-insurance some depositors will lose part of their deposits. We assume that n depositors (for $n \leq N$) are adversely affected by the bank closure and will accordingly vote against the incumbent party if it is an election year.

The probability of winning the election falls from $\frac{1}{2}$ to:

$$\Pr\{\tilde{\phi} < -\tfrac{n}{N}\}. \tag{1}$$

If the political candidate i wins the re-election, he receives a monetary benefit of W. Define $F(\cdot)$ as the cumulative probability function of ϕ. The expected gain for candidate i from winning the election is:

$$\Pr\{\tilde{\phi} < -\tfrac{n}{N}\}W = F\left(-\tfrac{n}{N}\right)W. \tag{2}$$

Consider the strategy set of the political candidate i. If the bank does not recapitalize, the regulator will want to close the bank, however, the political candidate may delay the bank closure (by influencing the regulator) until after the election so as to minimize the likelihood of losing the election. However, influencing the timing of bank failure is costly if he is found to have used his political power inappropriately. Assume that the probability of being caught is increasing in n (since the larger the population of individuals who are potentially affected by the bank failure the more visible is any political action to delay failure).[6] The probability he is caught is given by the following:

$$\Pr\{\tilde{\theta} < \tfrac{n+1}{N}\}. \tag{3}$$

where $\tilde{\theta} \sim U[0,1]$. If the political candidate wins the election (with probability of $\Pr\{\tilde{\phi} < 0\} = F(0) = \frac{1}{2}$) and gets caught, he loses his job (i.e. loses W) and bears the penalty (in monetary terms) P for loss of reputation and/or incurring cost related to civil litigation and so on. Let $G(\cdot)$ be the cumulative probability function of θ, the expected monetary cost,

[6] Even if $n = 0$, we assume there is a small chance that the politician will be caught. That is, delaying bank failure is never costless.

$C(n)$, can be described as:

$$C(n) = F(0)\, G(\tfrac{n+1}{N})(W+P). \tag{4}$$

The expected utility of the political candidate can be illustrated by the trade off between the expected gain associated with reducing the probability of losing the election and the expected monetary cost if he delays the bank failure:

$$u_i(n) = F(0)\, W - F(0)\, G(\tfrac{n+1}{N})(W+P) - F\left(-\tfrac{n}{N}\right) W \tag{5}$$

The following lemma shows that the expected payoff for the political candidate is always positive if n/N is sufficiently small.

Lemma 1. *If* $\frac{W}{P+W} > a$, $u_i(n) \geq 0$ *for* $\frac{n}{N} \in \left(\frac{1}{N} a \left(\frac{P+W}{W}\right) / \left(1 - a\left(\frac{P+W}{W}\right)\right), \frac{W+P}{W} + \frac{1}{N}\right)$. *If* $\frac{W}{P+W} < a$, $u_i(n) \geq 0$ *for* $\frac{n}{N} \in (0, \frac{W}{W+P} + \frac{1}{N})$.

Proof. To prove this lemma, let us consider the following regions of $\frac{n}{N}$: (i) $(1 - \frac{1}{N}, 1)$, (ii) $(2a, 1 - \frac{1}{N})$ and (iii) $(0, 2a)$.

For $\frac{n}{N} \in (1 - \frac{1}{N}, 1)$,

$$u_i(n) = \left(\frac{1}{2} - 0 - \left(\frac{1}{2}\right)\right) W - \left(\frac{1}{2}\right) P = -\frac{1}{2} P.$$

For $\frac{n}{N} \in (2a, 1 - \frac{1}{N})$,

$$\begin{aligned} u_i(n) &= \left(\frac{1}{2} - 0 - \left(\frac{1}{2}\right)\left(\frac{n+1}{N}\right)\right) W - \left(\frac{1}{2}\right)\left(\frac{n+1}{N}\right) P \\ &= \frac{1}{2} W - \frac{1}{2}\left(\frac{n+1}{N}\right)(W+P) \end{aligned}$$

and $u_i(n) > 0$ if

$$\frac{n}{N} < \frac{W}{W+P} + \frac{1}{N},$$

which holds true if $\frac{W}{W+P} < 1 - \frac{2}{N}$.

For $\frac{n}{N} \in (0, 2a)$,

$$\begin{aligned} u_i(n) &= \left(\frac{1}{2} - \frac{-\frac{n}{N} + a}{2a} - \left(\frac{1}{2}\right)\left(\frac{n+1}{N}\right)\right) W - \left(\frac{1}{2}\right)\left(\frac{n+1}{N}\right) P \\ &= \frac{1}{N}\left(\frac{n(1-a)-a}{2a}\right) W - \frac{1}{N}\left(\frac{n+1}{2}\right) P. \end{aligned}$$

and $u_i(n) > 0$ if:

$$\frac{n}{N} > \frac{1}{N}\left(\frac{a\left(\frac{P+W}{W}\right)}{1 - a\left(\frac{P+W}{W}\right)}\right)$$

Note that the above inequality always holds when $\frac{W}{P+W} < a$ since the right hand side of the above inequality will be negative. *Q.E.D.*

Figure 1 illustrates the result of lemma 1. Consider the case where a is sufficiently large (Panel a). Delaying the closure of a small bank (small $\frac{n}{N}$) always yields a positive utility for the political candidate. But as the penalty P rises, the expected payoff $u_i(n)$ falls. Suppose big banks and small banks have equal chance of failing. Then as the penalty rises (increases P to P'), the probability of observing a positive utility, $\Pr\{u_i(n) > 0 | \frac{W}{P+W} < a\}$ falls from $\frac{W}{W+P} + \frac{1}{N}$ to $\frac{W}{W+P'} + \frac{1}{N}$. The expected payoff also falls. If a is sufficiently small (Panel b). Delaying the closure of a small bank could be suboptimal.

An increase in P reduces the probability of observing a positive utility: $\Pr\{u_i(n) > 0 | \frac{W}{P+W} > a\} = \frac{W}{W+P} + \frac{1}{N} - \frac{1}{N}\left(\frac{a(P+W)/W}{1-a(P+W)/W}\right)$ as:

$$\frac{\partial \Pr\{u_i(n) > 0 | \frac{W}{P+W} > a\}}{\partial P} = -\frac{W}{(W+P)^2} - \frac{a/W}{N\left(1 - a\left(P+W\right)/W\right)^2} < 0, \tag{6}$$

a falling a (for example, a decrease from a to a' in Panel (b)) also increases the probability. As can be seen from the figure, when a falls, it becomes more attractive for the politician to delay the closure of smaller banks.

If there is no upcoming election, $u_i(0) < 0$ if the politician delays failure, since it has no

impact on the political outcome but the politician bears a positive cost: $G(\frac{1}{N})(W+p) > 0$.

Now let us look at the owner-manager of the bank. At time t, the bank is undercapitalized and there is a chance that the bank may fail to meet its demand deposits. The owner-manager has two choices. He can either (i) take measures to reduce loss exposure through managing the balance sheet (recapitalization), or (ii) take on more risk through expanding the loan book to high risk lending in an attempt to generate higher returns (i.e. gamble for resurrection). Define k as the action taken by the banker, let $\underline{k}$ refer to action (i) and $\overline{k}$ refer to action (ii). Define D as the total demand deposits of the bank ($D = nd$) and L_t as the expected value of loans at time t. For simplicity, we normalize the capital requirement to zero, so a bank is said to be undercapitalized if $D > L_t$. If $k = \underline{k}$, a rational banker will supply no more capital than just enough to ensure that $D = L_t$, which implies that $u_b(\underline{k}) = 0$.

If $k = \overline{k}$, a rational banker takes more risk and saves the cost of supplying additional capital. Since his equity is isomorphic to a call option (Black and Scholes (1973)), his expected utility is always non-negative:

$$u_b = \max\{L_T - D, 0\}, \tag{7}$$

which implies that: $u_b(\overline{k}) \geq u_b(\underline{k}) = 0$. However, there is a trade-off: if the bank chooses to take on more risk, i.e. $k = \overline{k}$, the regulator will close the bank down immediately since the bank becomes critically undercapitalized (L_t falls further due to increased risk). If however, the closure decision is delayed by politicians until after the election, this increases u_b due to the time value of the option. Upon the realization of loan values at date T, the bank may or may not be closed down depending on whether the value of loans exceeds deposits. If on date T, $L_T < D$, the regulator will close the bank down otherwise the bank survives.

2.1 Nash Equilibrium

The payoff matrix of the game is presented in Table (1). Consider panel (a) where there is a pending election. If the banker chooses to take on more risk, the political candidate has the incentive to delay bank failure should loan value fall below the value of the demand deposits, provided that the size of the bank is sufficiently small (due to lemma 1). If the banker chooses to recapitalize the political candidate has the incentive to do nothing since the decision to delay will give rise to non-zero probability of detection: $\Pr\{\tilde{\theta} < \frac{1}{N}\} = G(\frac{1}{N}) > 0$. Therefore, we have two Nash equilibria during the election year: (More Risky Loans, Delay) and (Recapitalize, Do Nothing).

When there is no upcoming election, it is not optimal for the politician to delay the closure of the bank since it has no impact on the political outcome. The optimal response for the politician is to doing nothing. Hence it is not optimal for the banker to take on more risk as the regulator would close the bank immediately. There is only one Nash equilibrium: (Recapitalize, Do Nothing).

[Insert Table 1 Here]

This gives rise to the first proposition:

Proposition 1 (Elections, Bank Size and Bank Failure)**.** (*a*) *Banks tend to fail less often during an election year* (*i.e. failure is more likely to be delayed by politicians*). (*b*) *Small banks are less likely to fail during an election year compared to large banks, ceteris paribus.*

Proof. The first part of the proposition follows immediately from the result of the Nash game. The second part of the proposition follows from the result of lemma 1. If $p > W$, the smaller the bank that is under-capitalized, the greater the likelihood that it will be delayed until after the election as the condition for $u_i(n) > 0$: $\frac{n}{N} < \frac{W}{W+p} + \frac{1}{N}$ is more likely to bind. *Q.E.D.*

Next, we will show that if the electoral margin is small (i.e. election is competitive), the political candidate is more likely to delay the bank closure.

Proposition 2 (Political Competition and Bank Failure)**.** *Ceteris paribus, political competition reduces the likelihood of bank failure during an election year (i.e. increases the likelihood of delay).*

Proof. If the competition between the two parties is intense, we expect the electoral margin to be small and hence σ_ϕ to be small. Since $\sigma_\phi = \frac{a}{\sqrt{3}}$, a low a implies a high level of political competition. Based on the result of lemma 1, $u_i(n)$ is more likely to be positive with a falling a since the condition $\frac{n}{N} > \frac{1}{N}\left(\frac{a\left(\frac{p+W}{W}\right)}{1-a\left(\frac{p+W}{W}\right)}\right)$ is more likely to be satisfied:

$$\frac{\partial}{\partial a}\frac{a\left(\frac{p+W}{W}\right)}{N\left(1-a\left(\frac{p+W}{W}\right)\right)} = \frac{\left(\frac{p+W}{W}\right)}{N\left(1-a\left(\frac{p+W}{W}\right)\right)^2} > 0.$$

Hence, we are more likely to observe the Nash equilibrium (More Risky Loans, Delay) when the competition between the two parties is more intense. *Q.E.D.*

3 Elections, Political Competition & Bank Failure

Election timing in the US is exogenously determined by law. Since 1845, election day occurs on the Tuesday in November after the first Monday - so election day must fall somewhere between November 2 and November 8 (inclusive). Presidential elections follow a four year cycle on even numbered years. Other federal offices (House of Representatives and Senate) run on a two year cycle on even numbered years.

At the state level, most states choose to run their elections in the same years at the federal elections (only 5 states run their Gubernatorial elections in "off-years" or odd-numbered years) and follow a two year cycle. For example, consider the Ohio General Assembly which

is the state legislature of the US state of Ohio. It consists of the 99-member Ohio House of Representatives and the 33-member Ohio Senate. Both houses of the General Assembly meet at the Ohio Statehouse in Columbus. On Presidential election years (2012, 2016, 2020, etc.) - election day involves electing: President of the United States, U.S. Senator (if term expires), Representatives to Congress, State Senators (even-numbered districts), State Representative, State Board of Education (one-third of members), Supreme Court Justices (two or three) and some county officials. For State election years (2014, 2018, 2022, etc.) - election day involves electing: U.S. Senator (if term expires), Representatives to Congress, Governor, Lieutenant Governor, Secretary of State, Treasurer of State, Auditor of State, Attorney General, State Senators (odd-numbered districts), State Representatives, State Board of Education (one-third of members), Supreme Court Justices (two or three) and some county officials.

Our measure of political competition follows Besley *et al.* (2010) and uses data originating from the work of Ansolabehere and Snyder (2002), who collected election results for a broad set of directly elected state executive offices.[7] Besley *et al.* (2010) define a party neutral measure of political competition to be the following:

$$PC_{jt} = -|d_{jt} - 0.5| \tag{8}$$

Where PC_{jt} is political competition in state j at time t and d_{jt} is the vote share of the Democrats in all state-wide races in state j at time t. Figure 2 extends the work of Besley *et al.* (2010) and plots 10-year averages of political competition over time separately for Southern and non-Southern states. As can be seen, there is significant variation in political competition across states and over time. There are some noteworthy trends to point out. First, there is a significant difference in the level of political competition between Southern

[7] These elections range from US representatives, over the governorship, to down-ballot officers, such as Lieutenant Governor, Secretary of State, Attorney General, and so on. We thank James Snyder for generously providing us with an updated version of the data.

and non-Southern states. Second, this difference increases between 1890 and 1940 due to a reduction in political competition in Southern states. Third, beginning in 1940s, there is an increase in political competition in the US South relative to the US non-South to such a degree that, today, the US Southern states are more politically competitive than non-Southern states.

The pattern observed in Figure 2 can be explained by historical events. By the 1880s, the Democrats held a virtual monopoly over political office in the US Southern states. They achieved this by limiting the political participation of the black and low income population which made up the supporter base of their main rivals - the Republicans. Several voting restrictions were introduced over the years including: the white primary, multiple ballot boxes, poll taxes, literacy tests, and ultimately violence. This effectively eliminated opposition to the Democrats, and the fall in political competition is clearly visible in Figure 2.

Over time, a number of these practices were eliminated, and by the late 1950s, the remaining two major obstacles to full political participation were the poll tax and the literacy test. It was not until the 1960s that the dominance of the Democrats in US South was challenged with the Twenty-fourth Amendment to the U.S. Constitution, ratified in 1964, prohibiting poll taxes in federal elections, and the introduction of the 1965 Voting Rights Act which did two things: (1) it authorized the US attorney general to challenge the constitutionality of the use of poll taxes in state and local actions; and (2) it provided for direct federal action in "covered jurisdictions" to prohibit the use of the literacy test.[8] Consequently, federal courts quickly struck down the remaining poll taxes in Alabama, Mississippi, Texas, and Virginia.[9] The 1965 Voting Rights Act also targeted the states of Georgia, Louisiana, Mississippi, South Carolina, Virginia, 40 counties in North Carolina, Apache County in Arizona, and Honolulu County in Hawaii because of their literacy tests and low turnout. The resultant impact on political competition in the US South was a reversal of the pre-war decline. As a robustness

[8] A covered jurisdiction was defined to be a state, county, parish, or town that used a test or device (e.g., a literacy test) and had less than a 50 percent turnout in the 1964 presidential election.

[9] Florida, Georgia, Louisiana, and North Carolina repealed theirs by 1945, followed by South Carolina and Tennessee in 1951 and Arkansas in 1964.

check for the analysis which follows, we use the introduction of the Voting Rights Act to instrument for political competition. We will discuss this in more detail below.

The US banking sector is unique in the sense that there is an incredibly large number of banks, most of which are relatively small. Bank failure is also more frequent relative to other countries making the US an ideal setting to study bank failure. Data on bank failures and the characteristics of the failing banks are sourced from the FDIC. Panel A in Table 2 presents summary statistics for the sample of failed banks. In total, there have been 3995 bank failures in the US since 1934, not surprisingly, these have been concentrated (2642 failures) in the two major crises since the great depression: the S&L crisis, 1986-1992 and the recent Global Financial Crisis (GFC), 2007-2010 (see also Figure 3). If we compare failures that occur in an election year, versus those that occur in a non-election year, we find that (for the full sample) 2229 of the 3995 failures occur in non-election years. Based on these numbers, bank failure is about 1.25 times more likely in non-election years. Moreover, if we focus only on failures that occur outside of crisis periods we see the non-election year bias exacerbated - 768 of the 1353 failures occur in a non-election year implying bank failure is about 1.3 times more likely in non-election years. Looking now at the state level bank failure rate at in Panel B of Table 2, we see that for the full sample that average number of bank failures per 100,000 population is 0.197 per year. If we decompose this into election years versus non-election years we find that the election year failure rate is 0.210 compared to a non-election year failure rate of 0.185, which is counter to what our model predicts. Further investigation shows that this higher failure rate in election years is driven by failures occurring during crisis periods. We show that in non-crisis or "normal" periods, the failure rate in election years is 0.014 which is only half the failure rate in non-election years. This finding highlights the importance of properly controlling for impact of financial crisis, we discuss several approaches below.

4 Empirical Strategy & Results

We conduct our empirical analysis at two levels. First, at the bank level, we study how political competition and other bank/state characteristics affect the *timing* of bank failures. Our bank level logistic regressions take the form

$$(9) \quad ELECTION\ FAIL_{ij} = \alpha_j + \beta_0 + \beta_1 COMPETITION_j + \beta_2 SIZE_i + \boldsymbol{\beta}'\mathbf{X} + \varepsilon_{ij}$$

Here, $ELECTION\ FAIL_{ij}$ is equal to one if bank i in state j fails in an election year, α_j is a state fixed-effect, $COMPETITION_j$ is our measure of political competition in state j at the time of bank failure, $SIZE_i$ is either the log of total assets or one of four indicator variables for each bank size quartile (Small, Small-Medium, Medium, and Large), $\mathbf{X}$ is a vector of state and bank level control variables, and ε_{ij} is the error term. Our control variables include the following: (a) $DEMOCRAT\ GOVERNOR$ is an indicator variable equal to one if the governor at the time of bank failure was a Democrat; (b) $DEMOCRAT\ CONTROL$ is the fraction of Democrat incumbents less the fraction of Republican incumbents in all statewide races (excluding the president); (c) a measure of financial risk, either $LEVERAGE$ $(Deposits/Assets)$ or $SHORTFALL$ $([Deposits - Assets]/Deposits)$; (d) $ASSIST$ is a dummy variable that equals one if FDIC assistance results in 'survival'; (e) $PAYOUT$ is a dummy variable that equals one if bank failure results in FDIC payout to depositors; (f) $ACQUIRED$ is a dummy variable that equals one if bank failure results in acquisition by another bank; (g) $NATIONAL$ is a dummy variable that equals one if the bank is nationally chartered; (h) $STATE\ CHARTER$ is a dummy variable that equals one if the bank is state chartered; (i) THRIFT is a dummy variable that equals one if the institution is a thrift; and (j) $CRISIS$ is an indicator variable equal to one if the bank failed in a crisis year.[10]

[10] Major crises include: S&L 1986-1992, GFC 2007-2010

Second, at the state level, we study how the electoral cycle and political competition impact on the likelihood of bank failure and the bank failure rate. Our state level regressions take the form:

$$\begin{aligned} BANK\ FAILURE_{jt} &= \alpha_j + \gamma_0 + \gamma_1 ELECTION_{jt} + \gamma_2 COMPETITION_{jt} \\ &\quad + \gamma_3 \left[ELECTION_{jt} \times COMPETITION_{jt} \right] + \boldsymbol{\gamma}' \mathbf{X} + \epsilon_{ij} \end{aligned} \tag{10}$$

Here, $BANK\ FAILURE_{jt}$ can be one of two variables, first it is an indicator variable equal to one if there is at least one bank failure in state j in year t, second it is a continuous measure equal to the number of bank failures per 100,000 population. $ELECTION_{jt}$ is equal to one if there is an election in state j in year t. $COMPETITION_{jt}$ is political competition in state j in year t. $\mathbf{X}$ is a vector of state level control variables, and ϵ_{ij} is the error term. Our control variables include the following: (a) $DEMOCRAT\ GOVERNOR_{jt}$ is an indicator variable equal to one if the governor is a Democrat in state j in year t; (b) $DEMOCRAT\ CONTROL_{jt}$ is the fraction of Democrat incumbents less the fraction of Republican incumbents in all statewide races (excluding the president) in state j in year t; (c) $GROWTH_{it}$ is the annual growth in state income; and (d) $INFLATION_{it}$ is the annual inflation rate.

Figure 3 demonstrates two things: first, bank failure tends to be clustered around the major crises, and second, crises tend to impact on states differentially. Accordingly, in our estimation of equation (10) we control for the differential state clustering of bank failure in crisis years in several ways - none of which are perfect solutions. First, is to "flatten" the distribution in Figure 3 and estimate a logit model where $BANK\ FAILURE_{jt}$ is an indicator variable that equals to one if there is *any* bank failure in state j in year t as well as including the variable $CRISIS$ (indicator equal to one in crisis years) into our specification. Next, since we are in essence interested in estimating the impact of election cycles and political

competition in "normal" times, a second approach is to simply exclude the crisis years (1986-1992 and 2007-2010) from our estimation of (10) - using banks failures per 100,000 population as the dependent variable. The final approach is to use our continuous measure of state-level bank failure on our full sample but include $CRISIS$ as well as $[\alpha_j \times CRISIS]$ into our specification.[11]

Tables 3 and 4 present our bank level results. The tables are identical except Table 3 uses a continuous measure for political competition whereas Table 4 uses dummy variables for political competition quartiles ($Competition\ 4Q$ is the highest competition quartile). For each of the tables there are eight columns using varying combinations of control variables. Columns one through four use $SHORTFALL$ as the measure of financial risk while columns five through eight use $LEVERAGE$. Even numbered columns use log assets as the measure of $SIZE$ and controls for whether the failure was an outright failure or assisted transaction ($ASSISTANCE$). Odd numbered columns use four indicator variables for bank size quartile (Small, Small-Medium, Medium, and Large) and also differentiates between the type of outright failure ($PAYOUT$ or $ACQUIRED$). The results in Tables 3 and 4 are qualitatively identical, we focus the discussion on the results from Table 4 for ease of interpretation.

Our bank level results provide consistent evidence in favour of Proposition 1b and Proposition 2. More precisely, we show that - depending on the specification - small banks (banks in the bottom size quartile) are between 1.7 ($\approx 1/\exp(-0.548)$) to 2 ($\approx 1/\exp(-0.732)$) times less likely to fail during an election year relative to the top size quartile. Using our continuous size measure we show that an increase in the value of bank assets by 20 percent increases the likelihood of a bank failing during an election year by between 4 to 5 percent. Across all specifications, the coefficient estimate on the indicator variable for the top political

[11] All bank level data and failure characteristics are obtained from the FDIC website at www.fdic.gov. State personal income and inflation data are available from the Bureau of Economic Analysis. Information for our variable $DEMOCRAT\ GOVERNOR$ was obtained from the National Governors Association at www.nga.org. Election dates and data for $DEMOCRAT\ CONTROL$ and $COMPETITION$ come from Ansolabehere and Snyder (2002) - a recent update of this data was kindly supplied by James Snyder in electronic form. Unconditional sample means for these variables are contained in Table 2.

competition quartile is negative and significant - bank failure is 3.5 to 4 times less likely to occur in an election year if the election is in the most competitive quartile.

The other result of interest is the relation between the type of bank failure and timing. If the bank failure is recorded as an FDIC assisted transaction rather than outright failure the bank is much more likely to have failed during an election year. The coefficient estimates on $ASSISTANCE$ are positive and significant across all specifications and imply that FDIC assisted transactions are 5 to 6 times more likely to occur in an election year rather than outright failure. This makes intuitive sense as assisted transactions typically involve restructuring which allows the institution's charter to survive. Accordingly, the economic and political costs associated with assisted transactions are much lower than outright failure, which may reduce political incentives to delay failure. When we distinguish between the type of outright failure, we see more evidence that the larger the economic and political costs associated with failure, the less likely the failure will occur in an election year. Outright failures are those which lead to an institution's charter being terminated, they fall into two broad categories: (a) the failing institution is acquired by another ($ACQUIRED$); and (b) the FDIC pays depositors directly and places the bank assets in a liquidating receivership ($PAYOUT$). Of these two categories, failures that lead to FDIC payout are more severe and costly. Looking at the coefficient estimates, for both types of outright failure, the estimates are negative and significant implying that relative to assisted transactions, both forms of outright failure are less likely to occur in an election year. The economic magnitudes of the coefficients suggest that more costly failures are more likely to be delayed: failure that results in an FDIC payout is 9 to 11 times less likely to occur in an election year relative to an assisted transaction whereas a failure resulting in the failing bank being acquired by another institution is only 5 times less likely to occur in an election year relative to an assisted transaction.

For our other control variables, we find that relative to a nationally chartered bank, thrifts are much less likely to fail in an election year. Since thrifts are typically a lot smaller

than nationally chartered banks, this result is most likely related to our prediction that the private costs of delaying failure increase with bank size and therefore make it more likely that the failure of small institutions are delayed. There is no difference between state versus nationally chartered banks. We also find that in crisis years banks are more likely to fail in an election year. This is not surprising since politicians can always associate the failure of a local bank with the external crisis hence reducing the political cost of an election year local bank failure. Finally, neither of our measures of financial risk nor state political variables appear to explain much variation in the timing of bank failure.

Before moving on to our state-level regressions, we attempt to assess the economic cost of delaying failure. To the extent that failing banks take on more risks if they are allowed to continue operating (i.e. gambling for resurrection), one might expect that delayed failure leads to an accumulation of losses. We test this conjecture on a sub-sample of banks (approximately two-thirds of the full sample) for which we have an FDIC estimate of the loss incurred by the insurance fund as a result of the failure. Our dependent variable of interest is $LOSS\ RATE_i$ which is defined as the estimated loss to the FDIC insurance fund as a fraction of bank assets for bank i. We regress $LOSS\ RATE_i$ on an indicator variable equal to one if bank i failed in an election year plus the same set of controls as in equation (9). In the cross-section we expect that holding other things constant, banks failing in an election year will have a lower loss rate. The results presented in Table 5 support this conjecture. The coefficient estimates show that banks failing in an election year have a loss rate that is more than 0.05 (5% of assets) lower than banks failing in other years. With an average loss rate of just under 0.25 (25% of assets), this estimate amounts to a loss rate that is more than 20 percent lower for election year failures. Based on the average size of failed banks, this translates to (approximately) an additional $3 million in losses to the FDIC insurance fund for banks failing in non-election years.

At the state level, we use several strategies to assess the relation between the election cycle and the state bank failure rate First, we use a logistic regression to determine whether

the likelihood of observing a bank failure is lower in an election year while controlling for state-level political and macroeconomic factors. The results are presented in Table 6, odd numbered columns represent standard logit regressions. As robustness, we also use the introduction of the 1965 Voting Rights Act to instrument for political competition since this law change constituted an exogenous federal intervention into state politics unrelated to bank failure. Specifically, we instrument political competition with a variable which is equal one after 1965 if a state was the target of federal intervention due to having either a literacy test or a poll tax (or both) and zero otherwise. These results are presented in even numbered columns.[12] The results are consistent across all specifications and estimation techniques, save that our instrumental variables estimates are much larger in magnitude than those obtained in the standard logit regressions. We therefore focus our discussion on the more conservative estimates taken from the full model (column 5).

The coefficient on our election year dummy indicates that bank failure is approximately 1.8 ($\approx 1/\exp(-0.607)$) times less likely to occur in an election year. Of particular interest is the coefficient estimate for the interaction term - the impact of political competition in an election year. In line with our prediction, the interaction between election year and political competition is negative and significant, suggesting the incentive to delay bank failure is exacerbated if the election is close. We interpret this result in two ways to highlight its importance. First, consider a state in which there is in increase in political competition of 0.03 (a 3 point swing) or a equivalently a reduction in the vote margin from, say, 55-45 to 52-48.[13] This leads to an estimate for the magnitude of the overall impact of the election cycle on the likelihood of bank failure increasing from 1.8 to approximately 2.2 - that is, bank failure is 2.2 times less likely to occur in an election year if there has been a three point swing since the last election. Second, consider the longer term implications of increasing political competition. As discussed previously and documented in Figure 1, Southern states of the

[12] Similar approaches have been used by Besley et al. (2010) and Husted and Kenny (1997).

[13] This 0.03 increase actually represents an increase from the full sample median value of -0.05 to the 75th percentile value of -0.02.

US experienced significant increases in political competition during the post war period, it was common for these states to experience an increases in political competition of 0.3 (a 30 point swing). This magnitude of increase in competition leads to an estimate for the overall effect of the election cycle on bank failures changing from 1.8 to approximately 15 ($\approx 1/\exp(-0.607+0.3\times-7.093)$) - that is, as a result of the increase in political competition witnessed in the Southern US states in the post-war period, bank failure in the US South is, today, 15 times less likely to occur in an election year.

Interestingly, despite electoral incentives to delay failure, the coefficient on $COMPETITION$ is positive and significant, implying that political competition, on average, actually increases the likelihood of bank failure. Though, this positive impact is reduced significantly in an election year (more than halved) due to election year incentives to delay failure. This result may not be as counterintuitive as it seems. There have been several recent studies showing that political competition improves economic outcomes and is therefore welfare enhancing (see for example, Polo, 1998; Svensson, 1998; and Besley *et al.*, 2010). To the extent that political competition enhances competition in the banking industry whereby bank failure is an efficient mechanism to ensure poor performing banks exit - thereby increasing the overall health of the local bank industry - one might expect that political competition to be positively correlated with bank failure. The economic significance of competition is large. Based on estimates from column five, an increase in political competition of 0.03 leads to an increase in the likelihood of state-level bank failure by almost 40 percent. Our finding is in line with arguments made by Haber (2004, 2008) who demonstrates that political competition lead to the breakdown of segmented banking monopolies and increased bank competition in the US over the last century. As Haber (2004) eloquently put it:

> "...the political institutions that limit the authority and discretion of government play a crucial role in the development of the banking system. These political institutions vary across societies. There does not appear to be any single algorithm for their optimal organization. Nevertheless, these institutions oper-

ate according to a single unifying principle: they create institutionalized forms of competition within the political system that allow the ambitions of individuals or groups to be counteracted by the ambitions of other individuals or groups."[14]

The rest of our results are not surprising. Bank failure is more likely in crisis years and with higher inflation, and is less likely with higher economic growth. High inflation is usually accompanied with higher interest rates, which for the typical bank with a positive duration gap leads to an erosion of net worth. Higher income growth typically leads to increased demand for loans as well as a reduction in bad loans therefore improving net worth.

Second, we reestimate (10) using our continuous measure for $BANK\ FAILURE_{jt}$ (failures per 100,000 population). Due to the presence of a large number of observations with the value of zero (over 55 percent of state-years have no bank failure) we estimate (10) using a Tobit model since least squares estimates will lead to downward biased coefficients. As robustness we also reestimate (10) using a Tobit model where we use the introduction of the 1965 Voting Rights Act to instrument for $COMPETITION_{jt}$.[15]

Table 7 reports these results across two panels. Panel A excludes the major financial crises whereas Panel B uses the full sample. Panel B also includes additional controls: a crisis dummy, as well as the crisis dummy interacted with state fixed-effects. While the interpretation differs, the results are qualitatively similar to those reported in Table 6 - across both panels and all specifications the coefficient estimates are of the correct sign and significant. We therefore focus our discussion on main variables of interest using the results from our full model (column 5).

The estimate on our election year dummy is -0.102 in Panel A and -0.0175 in Panel

[14] Harber (2004), "Political Institutions, Banks, and Economic Growth: Evidence from the United States and Mexico." *Standford University Working Paper*. pg. 4.

[15] For comparison and completeness, we reproduce Table 7 using least squares and two-stage least squares. These results are not reported to save space but we breifly describe them here. In Panel A (crisis years ommitted), the coeffiencient estimates are still significant and of the correct sign however are smaller in magnitude. In Panel B, the coefficient estimate for $COMPETITION_{jt}$ is still positive and significant, however, the relation between the election year dummy and its interaction with $COMPETITION_{jt}$ are no longer significant. These results are not suprising given the downward bias introduced when using least squares in the presence of a large fraction of zero observations.

B. Recall from the summary statistics, the unconditional failure rate is 0.197 for the full sample and 0.021 for the sub-sample excluding the crisis years. Compared to these mean values, our coefficient estimates suggest that, in an election year, there is a reduction in the failure rate by 9 percent ($\approx -0.0175/0.197$) when we include the crisis years and almost 500 percent ($\approx -0.102/0.021$) when the crisis years are excluded (i.e. "normal times"). The coefficient estimate on the interaction between competition and our election dummy is -0.727 in Panel A and -0.325 in Panel B. With an increase in political competition of 0.03, our estimates therefore imply that the overall impact of the election year on bank failure increases in magnitude by 0.022 ($\approx 0.03 \times 0.727$) and 0.010 ($\approx 0.03 \times 0.325$) for Panels A and B respectively. This corresponds to a 20 percent ($\approx 0.022/0.102$) and 55 percent ($\approx 0.010/0.0175$) increase in magnitude for the impact of election years on bank failure. Finally, the coefficient estimates for competition is 0.808 in Panel A and 1.262 in Panel B. Consider again an increase in political competition of 0.03, an increase in political competition of this magnitude increases the failure rate by 0.024 (about 100 percent compared to the unconditional mean for non-crisis years of 0.021) and 0.038 (about 20 percent compared to the unconditional mean for the full sample of 0.197).

5 Conclusion

We develop and test a simple game-theoretic model to study political incentives to delay bank failure. Our model predicts that politicians have an incentive to delay bank failure in election years and that this incentive is exacerbated if the election is close. Moreover, our model predicts that the failure of small banks is more likely to be delayed than that of large banks.

Our empirical application tests these predictions using US data at the bank level and at the state level. At the bank level, we show that small banks (smallest size quartile) are up to 2 times less likely to fail in an election year than large banks. We also show

that bank failure is up to 4 times less likely to occur in years where state elections were in highest competition quartile. At the state level, we show that we are 1.8 times less likely to observe *any* bank failure in an election year. If we consider a three point swing in the competitiveness of the election, or equivalently a reduction in the vote margin from, say, 55-45 to 52-48 this election year effect increases in magnitude to 2.2. Our analysis using a continuous measure of state bank failure (failures per 100,000 population) supports these findings, and is robust to different specifications and estimation techniques.

Our results demonstrate that even developed democracies such as the US are not immune from the incentive problems faced by politicians. The implications for policy is that bank regulatory and closure rules need to account for the perverse incentives of politicians. Similar to central bank independence, the results here suggest that bank regulators may also require the same type of independence to effectively carry out their role.

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Table 1: Payoff matrix

Political Candidate

Banker	**Delay**	**Do Nothing**
More Risky	$u_b(k) \geq 0$	$u_b(k) < 0$
Loans ($k = \overline{k}$)	$u_i(n) > 0$	$u_i(n) < 0$
Recapitalize	$u_b(k) = 0$	$u_b(k) = 0$
($k = \underline{k}$)	$u_i(n) < 0$	$u_i(n) = 0$

(a) If there is an election on date T

Political Candidate

Banker	**Delay**	**Do Nothing**
More Risky	$u_b(k) \geq 0$	$u_b(k) < 0$
Loans ($k = \overline{k}$)	$u_i(n) < 0$	$u_i(n) = 0$
Recapitalize	$u_b(k) = 0$	$u_b(k) = 0$
($k = \underline{k}$)	$u_i(n) < 0$	$u_i(n) = 0$

(b) If there is no election on date T

Table 2: Summary Statistics

This table reports the summary statistics of variables used in the empirical analysis. With the exception of *Failures*, *Failures in election year* and *Failures in non-election year*, all reported values are the averages. *Failures*, *Failures in election year* and *Failures in non-election year* are the total number of bank failures, respectively, for the full sample, in election years and non-election years from 1934 to 2012. *Loss rate* is the FDIC estimated loss given failure scaled by total assets. *Shortfall* is (Deposits-Assets)/Deposits. *Leverage* is Deposits/Assets. *Size* is the natural log of the bank's assets. *Assist* is a dummy variable that equals 1 if FDIC assistance results in 'survival'. *Payout* is a dummy variable that equals 1 if bank failure results in FDIC payout to depositors. *Acquired* is a dummy variable that equals 1 if bank failure results in acquisition by another bank. *National* is a dummy variable that equals 1 if bank is nationally chartered. *State charter* is a dummy variable that equals 1 if bank is state chartered. *Thrift* is a dummy variable that equals 1 if bank is a thrift. *Failure rate* is the within-state number of bank failures per 100,000 population. *Competition* is the within-state political competition measure from Ansolabehere and Snyder (2002). *Governor is Democrat* is a dummy variable that equals 1 if the state's governor is a Democrat. *Democrat Control* is the fraction of Democrat incumbents less the fraction of Republican incumbents in all statewide races (excluding the president). *Growth* is the annual growth in state income. *Inflation* is the annual inflation rate. The "Non-Crisis" sample excludes the major crises: 1986-1992 (S&L) and 2007-2010 (GFC).

PANEL A: Bank Level Data 1934-2012

	Total	**Crisis**	**Non-Crisis**	**Mid West**	**North East**	**South**	**West**
Failures	3995	2642	1353	962	425	1979	629
Failures in election year	1766	1181	585	440	194	890	242
Failures in non-election year	2229	1461	768	522	231	1089	387
Loss rate	0.247	0.251	0.163	0.191	0.184	0.278	0.239
Shortfall	-36.164	-52.038	-0.187	-0.267	-204.827	-0.072	-106.334
Leverage	0.945	0.974	0.880	0.913	0.899	0.975	0.924
Size	10.816	11.395	9.506	9.955	11.718	10.897	11.301
Assist	0.149	0.132	0.183	0.163	0.144	0.154	0.116
Payout	0.144	0.076	0.278	0.209	0.096	0.123	0.146
Acquired	0.705	0.790	0.540	0.628	0.760	0.721	0.738
National	0.204	0.223	0.167	0.102	0.184	0.264	0.184
State charter	0.429	0.337	0.608	0.565	0.320	0.385	0.432
Thrift	0.367	0.440	0.225	0.333	0.496	0.351	0.383

PANEL B: State Level Data 1934-2010

	Total	**Crisis**	**Non-Crisis**	**Mid West**	**North East**	**South**	**West**
Failure rate	0.197	0.455	0.021	0.090	0.054	0.371	0.071
Failure rate in election year	0.210	0.524	0.014	0.041	0.010	0.194	0.030
Failure rate in non-election year	0.185	0.400	0.028	0.049	0.044	0.176	0.042
Competition	-0.073	-0.050	-0.088	-0.061	-0.063	-0.090	-0.063
Governor is Democrat	0.486	0.397	0.546	0.403	0.501	0.537	0.464
Democrat Control	0.120	0.185	0.079	-0.147	0.071	0.352	-0.002
Growth	0.063	0.038	0.082	0.059	0.060	0.063	0.069
Inflation	0.033	0.030	0.034	0.030	0.032	0.035	0.031

Table 3: Panel logit regression of individual bank failure.

This table reports logit regression results on individual bank failure. The sample period is from 1934 to 2012. The dependent variable is a indicator variable that equals 1 if the bank fails in the election year and 0 otherwise. *Competition* is the within-state political competition measure from Ansolabehere and Snyder (2002). *Governor is Democrat* is a dummy variable that equals 1 if the state's governor is a Democrat. *Democrat Control* is the fraction of Democrat incumbents less the fraction of Republican incumbents in all statewide races (excluding the president). *Shortfall* is (Deposits-Assets)/Deposits. *Leverage* is Deposits/Assets. *Size* is the natural log of the bank's assets. *Small*, *Small-Med* and *Medium* are bank size dummy if the bank is in in the 1st, 2nd and 3rd size (total assets) quartile. *Assist* is a dummy variable that equals 1 if FDIC assistance results in "survival". *Payout* is a dummy variable that equals 1 if bank failure results in FDIC payout to depositors. *Acquired* is a dummy variable that equals 1 if bank failure results in acquisition by another bank. *State charter* is a dummy variable that equals 1 if bank is state chartered. *Thrift* is a dummy variable that equals 1 if bank is a thrift. *Crisis* is a dummy variable that equals 1 if sample year lies in the major banking crisis period, i.e. from 1986 to 1992 (S&L) and from 2007 to 2010 (GFC). All regressions contain state fixed effects. z-statistics based on robust cluster standard errors (clustered by state) are reported in parentheses. *, ** and *** represent significance levels of 10%, 5% and 1%, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Competition	-6.285**	-6.718***	-4.727*	-5.619**	-6.327**	-6.745***	-4.683*	-4.683*
	(-2.533)	(-2.663)	(-1.922)	(-2.238)	(-2.475)	(-2.601)	(-1.879)	(-1.879)
Governor is Democrat	0.143	0.152	0.122	0.141	0.144	0.152	0.115	0.115
	(0.777)	(0.817)	(0.624)	(0.733)	(0.775)	(0.811)	(0.585)	(0.585)
Democrat control	-0.356	-0.351	-0.390	-0.372*	-0.355	-0.351	-0.390	-0.390
	(-1.561)	(-1.579)	(-1.638)	(-1.673)	(-1.558)	(-1.577)	(-1.642)	(-1.642)
Shortfall	0.0148	0.0106	-0.00881	-0.0118				
	(1.629)	(1.146)	(-0.936)	(-1.177)				
Leverage					0.109	0.0652	-0.137	-0.137
					(0.574)	(0.369)	(-0.846)	(-0.846)
Size	0.283***	0.244***			0.286***	0.246***		
	(7.221)	(7.364)			(6.643)	(6.568)		
Small			-0.732***	-0.580***			-0.721***	-0.721***
			(-4.262)	(-3.827)			(-3.915)	(-3.915)
Small-Med			-0.122	-0.0908			-0.106	-0.106
			(-1.236)	(-0.949)			(-1.033)	(-1.033)
Medium			-0.118	-0.0810			-0.107	-0.107
			(-0.741)	(-0.492)			(-0.654)	(-0.654)
Assist	1.782***		1.840***		1.778***		1.841***	
	(8.976)		(10.09)		(8.805)		(10.03)	
Payout		-2.240***		-2.497***		-2.239***		
		(-13.88)		(-15.23)		(-13.65)		
Acquired		-1.640***		-1.648***		-1.637***		
		(-8.177)		(-8.727)		(-8.081)		
State charter	0.0887	0.0979	0.0107	0.0430	0.0942	0.102	0.0133	0.0133
	(0.929)	(1.058)	(0.116)	(0.478)	(0.985)	(1.096)	(0.145)	(0.145)
Thrift	-1.028***	-0.936***	-0.819***	-0.737***	-1.028***	-0.935***	-0.810***	-0.810***
	(-9.017)	(-8.095)	(-7.089)	(-6.540)	(-8.913)	(-7.933)	(-7.053)	(-7.053)
Crisis	1.278***	1.203***	1.391***	1.257***	1.268***	1.197***	1.397***	1.397***
	(9.132)	(8.373)	(9.246)	(8.533)	(9.275)	(8.481)	(9.440)	(9.440)
Constant	-4.220***	-2.028***	-0.994***	0.793**	-4.352***	-2.109**	-0.873**	-0.873**
	(-6.554)	(-2.943)	(-2.735)	(1.960)	(-5.151)	(-2.357)	(-1.962)	(-1.962)
Observations	3,273	3,273	3,273	3,273	3,274	3,274	3,274	3,274
Pseudo R^2	0.154	0.156	0.138	0.145	0.154	0.156	0.138	0.138

Table 4: Panel logit regression of individual bank failure.

This table reports logit regression results on individual bank failure. The sample period is from 1934 to 2012. The dependent variable is a indicator variable that equals 1 if the bank fails in the election year and 0 otherwise. The within-state political competition measure (*Competition*) is divided into quartiles. Dummy variables are created to indicate the competition quartile for each state-year. *Governor is Democrat* is a dummy variable that equals 1 if the state's governor is a Democrat. *Democrat Control* is the fraction of Democrat incumbents less the fraction of Republican incumbents in all statewide races (excluding the president). *Shortfall* is (Deposits-Assets)/Deposits. *Leverage* is Deposits/Assets. *Size* is the natural log of the bank's assets. *Small*, *Small-Med* and *Medium* are bank size dummy if the bank is in in the 1st, 2nd and 3rd size (total assets) quartile. *Assist* is a dummy variable that equals 1 if FDIC assistance results in "survival". *Payout* is a dummy variable that equals 1 if bank failure results in FDIC payout to depositors. *Acquired* is a dummy variable that equals 1 if bank failure results in acquisition by another bank. *State charter* is a dummy variable that equals 1 if bank is state chartered. *Thrift* is a dummy variable that equals 1 if bank is a thrift. *Crisis* is a dummy variable that equals 1 if sample year lies in the major banking crisis period, i.e. from 1986 to 1992 (S&L) and from 2007 to 2010 (GFC). All regressions contain state fixed effects. z-statistics based on robust cluster standard errors (clustered by state) are reported in parentheses. *, ** and *** represent significance levels of 10%, 5% and 1%, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Competition 2Q	-0.371	-0.382	-0.306	-0.339	-0.367	-0.378	-0.300	-0.300
	(-1.040)	(-1.050)	(-0.885)	(-0.953)	(-1.032)	(-1.042)	(-0.868)	(-0.868)
Competition 3Q	-0.371	-0.365	-0.302	-0.314	-0.367	-0.359	-0.290	-0.290
	(-0.906)	(-0.879)	(-0.748)	(-0.762)	(-0.886)	(-0.855)	(-0.710)	(-0.710)
Competition 4Q	-1.413***	-1.456***	-1.327***	-1.409***	-1.407***	-1.451***	-1.317***	-1.317***
	(-3.475)	(-3.502)	(-3.312)	(-3.419)	(-3.461)	(-3.488)	(-3.288)	(-3.288)
Governor is Democrat	0.410	0.438	0.361	0.413	0.407	0.434	0.353	0.353
	(1.450)	(1.553)	(1.237)	(1.436)	(1.446)	(1.546)	(1.209)	(1.209)
Democrat control	-0.387	-0.380	-0.436*	-0.411*	-0.387	-0.380	-0.436*	-0.436*
	(-1.597)	(-1.612)	(-1.701)	(-1.719)	(-1.594)	(-1.612)	(-1.704)	(-1.704)
Shortfall	0.00980	0.00465	-0.0123	-0.0197				
	(0.996)	(0.469)	(-0.994)	(-1.025)				
Leverage					-0.00177	-0.0546	-0.205	-0.205
					(-0.0109)	(-0.339)	(-1.266)	(-1.266)
Size	0.252***	0.211***			0.252***	0.210***		
	(8.045)	(7.898)			(7.530)	(7.075)		
Small			-0.708***	-0.548***			-0.690***	-0.690***
			(-4.776)	(-4.028)			(-4.354)	(-4.354)
Small-Med			-0.143	-0.110			-0.118	-0.118
			(-1.403)	(-1.126)			(-1.111)	(-1.111)
Medium			-0.130	-0.0942			-0.114	-0.114
			(-0.844)	(-0.591)			(-0.720)	(-0.720)
Assistance	1.758***		1.818***		1.756***		1.821***	
	(7.474)		(8.197)		(7.368)		(8.159)	
Payout		-2.202***		-2.441***		-2.210***		
		(-10.04)		(-11.38)		(-9.896)		
Acquired		-1.626***		-1.636***		-1.625***		
		(-7.068)		(-7.510)		(-6.998)		
State charter	0.108	0.121	0.0298	0.0699	0.113	0.124	0.0327	0.0327
	(1.074)	(1.243)	(0.301)	(0.735)	(1.127)	(1.280)	(0.331)	(0.331)
Thrift	-1.003***	-0.911***	-0.840***	-0.755***	-0.997***	-0.903***	-0.827***	-0.827***
	(-8.575)	(-8.051)	(-6.999)	(-6.825)	(-8.447)	(-7.840)	(-6.961)	(-6.961)
Crisis	1.231***	1.150***	1.360***	1.214***	1.229***	1.151***	1.371***	1.371***
	(8.140)	(7.434)	(8.754)	(7.796)	(8.129)	(7.490)	(8.887)	(8.887)
Constant	-3.421***	-1.208***	-0.656	1.177***	-3.425***	-1.142**	-0.486	-0.486
	(-7.221)	(-2.871)	(-1.585)	(3.469)	(-6.185)	(-2.056)	(-1.124)	(-1.124)
Observations	3,273	3,273	3,273	3,273	3,274	3,274	3,274	3,274
Pseudo R^2	0.164	0.167	0.152	0.159	0.164	0.167	0.152	0.152

Table 5: The Economic Cost of Delay.

This table reports panel regression on loss rate of failed banks (with fixed effects). The sample period is from 1934 to 2012. The dependent variable, *Loss rate*, is the FDIC estimated loss given failure scaled by total assets. *Failure occurred in election year* is a dummy variable if the bank fails in election year. *Competition* is the within-state political competition measure from Ansolabehere and Snyder (2002). *Governor is Democrat* is a dummy variable that equals 1 if the state's governor is a Democrat. *Democrat Control* is the fraction of Democrat incumbents less the fraction of Republican incumbents in all statewide races (excluding the president). *Size* is the natural log of the bank's assets. *Small*, *Small-Med* and *Medium* are bank size dummy if the bank is in in the 1st, 2nd and 3rd size (total assets) quartile. *Assist* is a dummy variable that equals 1 if FDIC assistance results in "survival". *Payout* is a dummy variable that equals 1 if bank failure results in FDIC payout to depositors. *Acquired* is a dummy variable that equals 1 if bank failure results in acquisition by another bank. *State charter* is a dummy variable that equals 1 if bank is state chartered. *Thrift* is a dummy variable that equals 1 if bank is a thrift. *Crisis* is a dummy variable that equals 1 if sample year lies in the major banking crisis period, i.e. from 1986 to 1992 (S&L) and from 2007 to 2010 (GFC).
All regressions contain state fixed effects. z-statistics based on robust cluster standard errors (clustered by state) are reported in parentheses. *, ** and *** represent significance levels of 10%, 5% and 1%, respectively.

	(1)	(2)	(3)	(4)
Failure occurred in election year	-0.0555**	-0.0563**	-0.0566**	-0.0572**
	(-2.272)	(-2.334)	(-2.330)	(-2.394)
Competition	-0.0266	-0.00995	-0.0131	0.00685
	(-0.0651)	(-0.0247)	(-0.0334)	(0.0177)
Governor is Democrat	-0.0601	-0.0618	-0.0623	-0.0642
	(-1.278)	(-1.304)	(-1.410)	(-1.445)
Democrat control	-0.0190	-0.0167	-0.0177	-0.0153
	(-0.585)	(-0.507)	(-0.555)	(-0.473)
Size	-0.0257***		-0.0223***	
	(-4.931)		(-4.655)	
Small		0.0833***		0.0705***
		(4.456)		(4.273)
Small-Med		0.0917***		0.0839***
		(4.699)		(4.731)
Medium		0.0323***		0.0251**
		(2.655)		(2.047)
Assistance	-0.157***	-0.153***		
	(-10.96)	(-10.95)		
Payout			0.272***	0.274***
			(9.083)	(9.447)
Acquired			0.150***	0.145***
			(10.37)	(10.40)
State charter	0.0262**	0.0277**	0.0253***	0.0265***
	(2.489)	(2.484)	(2.614)	(2.605)
Thrift	0.173**	0.170**	0.155**	0.153**
	(2.005)	(1.961)	(2.029)	(2.003)
Crisis	-0.499***	-0.476***	-0.472***	-0.452***
	(-7.937)	(-8.036)	(-8.302)	(-8.499)
Constant	1.034***	0.696***	0.796***	0.506***
	(7.857)	(9.489)	(7.013)	(8.347)
Observations	2,074	2,074	2,074	2,074
Number of state	48	48	48	48

Table 6: Panel logit regressions on bank failure at the state-level

This table reports panel logit regression on bank failure rate at the state-level. The sample period is from 1934 to 2012. The dependent variable is a dummy variable if state j has at least 1 bank failure in year t. *Election year* is a dummy variable that equals 1 if a state election is held in that year. *Competition* is the within-state political competition measure from Ansolabehere and Snyder (2002). *Governor is Democrat* is a dummy variable that equals 1 if the state's governor is a Democrat. *Democrat Control* is the fraction of Democrat incumbents less the fraction of Republican incumbents in all statewide races (excluding the president). *Crisis* is a dummy variable that equals 1 if the year is in a major banking crisis period, i.e. from 1986 to 1992 (S&L) and from 2007 to 2010 (GFC). *Growth* is the annual growth in state income. *Inflation* is the annual inflation rate. All regressions contain individual (state) fixed effects. z-statistics based on robust cluster standard errors (clustered by state) are reported in parentheses. *, ** and *** represent significance levels of 10%, 5% and 1%, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)
	Logit	Logit-IV	Logit	Logit-IV	Logit	Logit-IV
Election year	-0.452***	-5.092***	-0.463***	-5.059***	-0.607***	-4.453***
	(-3.953)	(-24.27)	(-4.068)	(-20.86)	(-5.216)	(-16.98)
Competition	12.96***		13.00***		11.08***	
	(5.322)		(5.359)		(4.228)	
$\widehat{Competition}$		120.4***		119.9***		113.3***
		(32.97)		(29.33)		(22.79)
Election year × *Competition*	-6.557***	-79.92***	-6.667***	-79.49***	-7.093***	-74.92***
	(-4.903)	(-25.10)	(-4.909)	(-21.50)	(-4.606)	(-17.68)
Governor is Democrat			-0.226	0.276	-0.169	0.445
			(-0.706)	(0.832)	(-0.513)	(1.312)
Democrat control			0.339	0.0588	0.132	0.298
			(1.120)	(0.195)	(0.424)	(0.974)
Crisis	3.154***	1.829***	3.190***	1.893***	3.688***	2.592***
	(29.27)	(17.89)	(29.14)	(17.90)	(29.65)	(23.46)
Growth					-2.986***	-0.0190
					(-3.457)	(-0.0216)
Inflation					26.76***	19.23***
					(15.42)	(10.97)
Constant	-1.595***	-12.89***	-14.53***	-12.48***	-18.47***	-14.90***
	(-9.419)	(-12.52)	(-13.77)	(-11.72)	(-17.11)	(-13.64)
Observations	7,144	7,042	6,911	6,911	6,443	6,443
Pseudo R^2	0.508	0.524	0.515	0.532	0.561	0.571

Table 7: State level panel tobit regressions on bank failure rate

This table reports panel tobit regression on bank failure rate at the state-level. The dependent variable is the number of failed banks per 100,000 population in state j in year t. *Election year* is a dummy variable that equals 1 if a state election is held in that year. *Competition* is the within-state political competition measure from Ansolabehere and Snyder (2002). *Governor is Democrat* is a dummy variable that equals 1 if the state's governor is a Democrat. *Democrat Control* is the fraction of Democrat incumbents less the fraction of Republican incumbents in all statewide races (excluding the president). *Crisis* is a dummy variable that equals 1 if the year is in a major banking crisis period, i.e. from 1986 to 1992 (S&L) and from 2007 to 2010 (GFC). *Growth* is the annual growth in state income. *Inflation* is the annual inflation rate. All regressions contain individual (state) fixed effects. z-statistics based on robust cluster standard errors (clustered by state) are reported in parentheses. *, ** and *** represent significance levels of 10%, 5% and 1%, respectively.

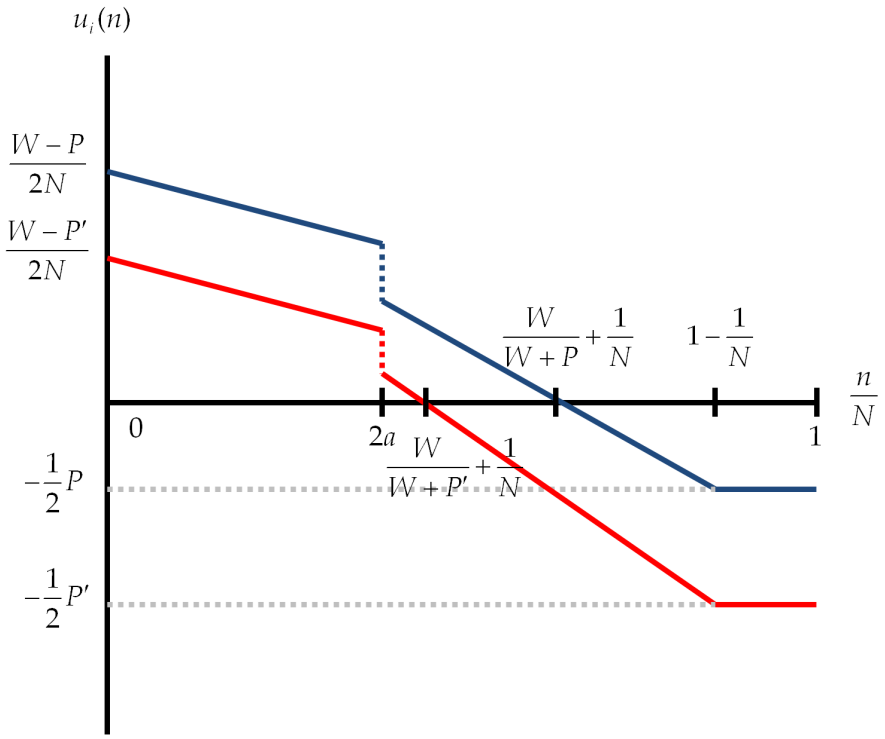
PANEL A: Major banking crisis periods (1986-1992, 2007-2010) are excluded from the sample

	(1) Tobit	(2) Tobit-IV	(3) Tobit	(4) Tobit-IV	(5) Tobit	(6) Tobit-IV
Election year	-0.0998***	-0.577***	-0.101***	-0.580***	-0.102***	-0.558***
	(-2.999)	(-207.3)	(-28.36)	(-188.8)	(-35.42)	(-220.6)
Competition	0.979***		1.002***		0.808***	
	(3.423)		(35.97)		(34.44)	
$\widehat{Competition}$		9.753***		9.897***		10.70***
		(383.9)		(288.2)		(362.6)
Election year × *Competition*	-0.667***	-6.769***	-0.679***	-6.841***	-0.727***	-7.237***
	(-3.749)	(-352.5)	(-25.35)	(-350.1)	(-28.92)	(-351.6)
Governor is Democrat			0.0178***	0.0378***	0.0197***	0.0590***
			(5.586)	(15.01)	(6.850)	(23.95)
Democrat control			-0.0234***	-0.0590***	-0.0346***	-0.0321***
			(-9.682)	(-28.97)	(-14.92)	(-16.59)
Growth					-0.999***	-0.499***
					(-45.77)	(-26.80)
Inflation					2.250***	2.366***
					(112.8)	(122.1)
Constant	-0.342***	-0.776***	-1.401***	-0.781***	-1.412***	-0.847***
	(-3.664)	(-309.9)	(-338.7)	(-234.6)	(-438.5)	(-315.1)
Sigma	0.248***	0.241***	0.248***	0.241***	0.237***	0.232***
	(5.233)	(512.2)	(217.0)	(337.9)	(285.3)	(415.8)
Observations	4,399	4,326	4,260	4,260	3,839	3,839
Pseudo R^2	0.271	0.318	0.273	0.320	0.333	0.374

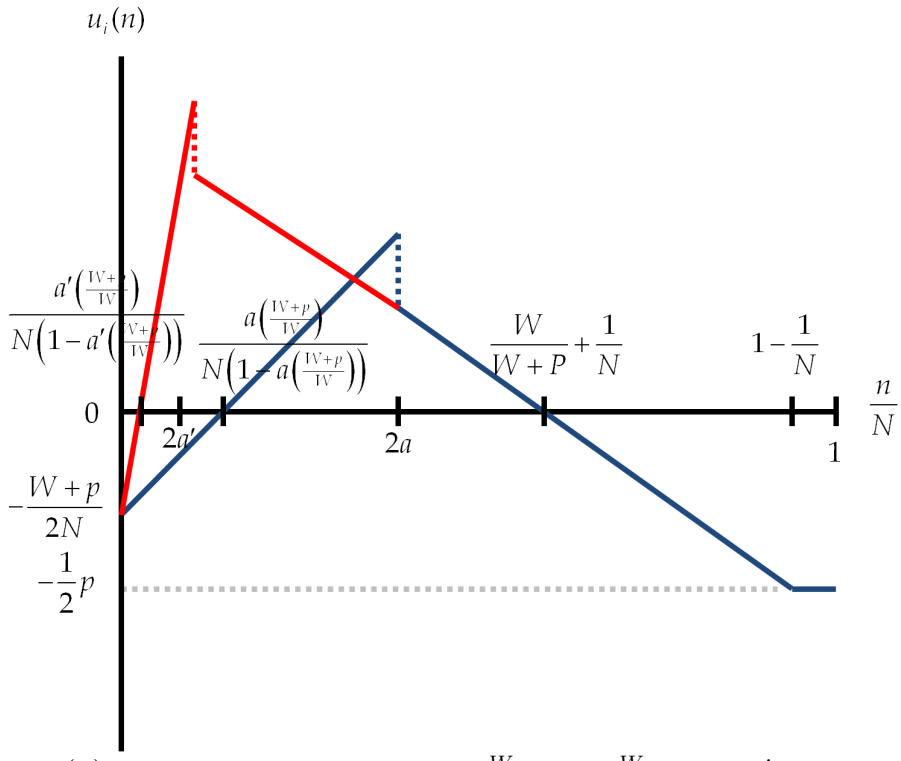
PANEL B: Full sample

	(1) Tobit	(2) Tobit-IV	(3) Tobit	(4) Tobit-IV	(5) Tobit	(6) Tobit-IV
Election year	-0.0285***	-0.662***	-0.0236***	-0.644***	-0.0175***	-0.439***
	(-15.82)	(-286.4)	(-10.28)	(-310.5)	(-10.13)	(-232.3)
Competition	1.826***		1.695***		1.262***	
	(53.80)		(63.24)		(57.51)	
$\widehat{Competition}$		17.12***		16.82***		13.09***
		(348.7)		(521.7)		(463.6)
Election year × *Competition*	-0.538***	-10.43***	-0.489***	-10.23***	-0.325***	-7.648***
	(-18.97)	(-334.4)	(-16.69)	(-508.0)	(-12.44)	(-362.2)
Governor is Democrat			-0.168***	-0.131***	-0.165***	-0.117***
			(-82.05)	(-65.40)	(-74.19)	(-52.99)
Democrat control			0.0785***	0.0297***	0.0554***	0.0745***
			(17.02)	(6.783)	(14.55)	(20.51)
Growth					-0.585***	-0.237***
					(-33.31)	(-14.66)
Inflation					4.168***	3.502***
					(212.6)	(178.0)
Crisis	0.939***	0.786***	0.996***	0.823***	1.036***	0.902***
	(571.2)	(497.0)	(430.6)	(363.3)	(592.8)	(513.5)
Constant	-0.462***	-0.844***	-1.899***	-0.837***	-1.970***	-1.201***
	(-158.7)	(-285.1)	(-804.0)	(-438.2)	(-1,053)	(-725.5)
Sigma	0.341***	0.339***	0.333***	0.332***	0.323***	0.322***
	(778.0)	(1,617)	(336.0)	(518.5)	(498.6)	(756.9)
Observations	7,144	7,049	6,916	6,916	6,448	6,448
Pseudo R^2	0.628	0.640	0.644	0.653	0.676	0.682

Figure 1: Lemma 1



(a) When a exceeds both $\frac{W}{P+W}$ and $\frac{W}{P'+W}$ and $P' > P$.



(b) When a is less than both $\frac{W}{P+W}$ and $\frac{W}{P'+W}$, and $a' < a$.

Figure 2: Political Competition by Decades

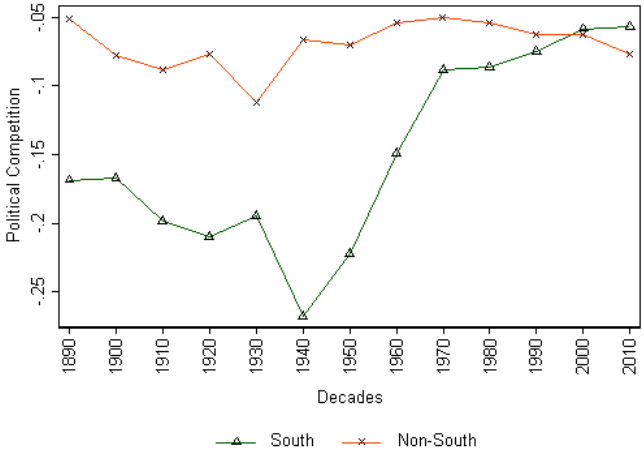
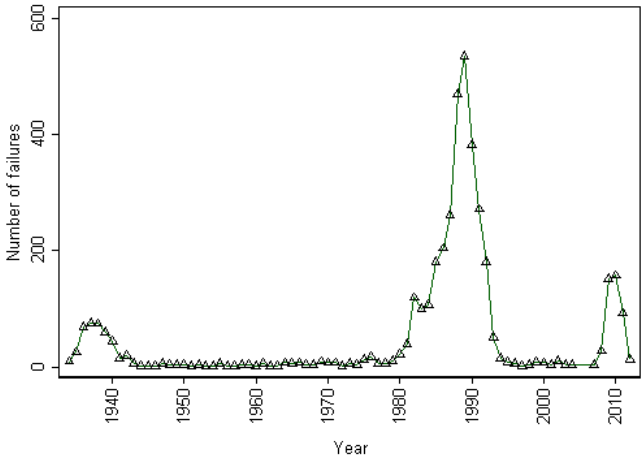
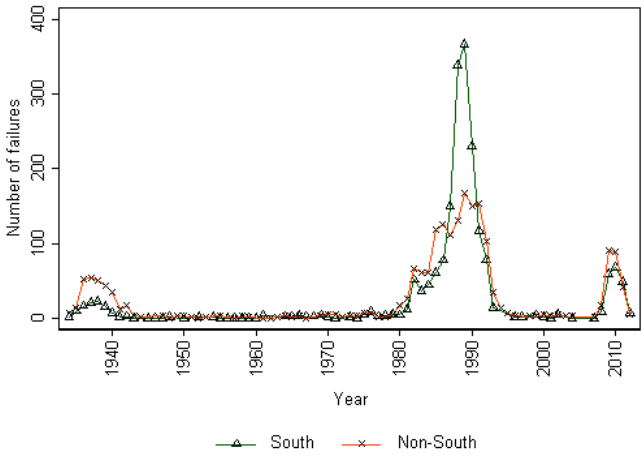


Figure 3: Bank Failures



(a) Bank failures over time



(a) Bank failures over time by region