Do Lenders Favor Politically Connected Firms?

Rent-seeking in an Emerging Financial Market

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Abstract

Rent-seeking by the politically connected is often blamed for economic ills, particularly in less developed economies. Using a loan-level data set of more than 90,000 firms that represents the universe of corporate lending in Pakistan between 1996 and 2002, we investigate rents to politically connected firms in banking. Classifying a firm as "political" if its director participates in an election, we examine the extent, nature, and economic costs of political rent seeking. We find that political firms borrow 40% more and have 50% higher default rates. Such preferential treatment occurs exclusively in government banks; private banks provide no political favors. Using only within firm variation, we show that government banks not only *select* bad political firms, but conditional on selection, lend larger amounts to them. Moreover, the extent of political rent-seeking increases with the strength of the firm's politician and whether he is in power, and falls with the degree of electoral participation in his constituency. We provide direct evidence that rules out alternative explanations such as socially motivated lending by government banks. The economy wide costs of the rent-seeking identified are estimated to be 0.3% to 1.9% of GDP every year.

1

I Introduction

Rent-seeking and corruption are thought to be pervasive around the world, and there is increasing recognition that they impose substantial costs on the economy. Yet, despite a rich theoretical literature examining their causes and consequences, there is little detailed empirical work.[1] While cross country studies such as Mauro 1995 are extremely useful in relating broad proxies of corruption to poor economic outcomes, they do not identify the channels through which rent seeking operates. Studies like Fisman 2001 provide a compelling picture of rents at the micro level but are unable to estimate the aggregate costs they impose on the economy.

This paper uses a unique loan level data set to both identify the presence and means of rent-seeking, *and* estimate its economy wide costs. First, we identify rents at the individual level they arise. We do so by asking whether a "politically connected" firm - defined as having a politician as a board member - receives preferential lending treatment. Second, we detail how these rents accrue and what factors exacerbate/check them. Since we know the lender, and the electoral attributes of a politician, we can ask which lenders are more likely to provide rents and how rent provision is affected by the politician's strength. Third, we translate these individual rents into aggregate costs to the economy as our data set includes every corporate loan[2] made by any lending institution operating in Pakistan from 1996 to 2002. Thus, unlike most related studies which use a sample of publicly listed firms, our data includes more than 90,000 public and private firms and is therefore more representative of the economy.

We explore a particular mechanism of political rent seeking suggested by the institutional environment of Pakistan's banking and political system. Politically powerful firms obtain rents from government banks by exercising their political influence on bank employees. The more powerful and successful a politician is, the greater is his ability to influence and manipulate government banks. This influence results from the organizational design of government banks that enables politicians to threaten bank officers with transfers and removals, or reward them with appointments and promotions. Government banks survive such high levels of corruption because of the soft-budget constraints that often characterize state institutions (Kornai 1979, 1986).

Our empirical results show that politically connected firms receive substantial preferential treatment. Not only do political firms receive 40% larger loans, but they also have 50% higher default

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[1] See Krueger, 1974; Shleifer and Vishny 1993, 1994; Banerjee, 1997; Bliss and Di Tella, 1997; and Acemoglu and Verdier, 2000 for theoretical work, and Bardhan 1997 for a review of the empirical literature on corruption.

[2] Any loan above Rs 500,000 (~$8,000)

rates on these loans. Moreover, the entire preferential treatment is driven by government banks. Private banks show no such political bias.

The preferential treatment to politicians is not simply a result of government banks selecting worse *types* of politicians, where type is proxied by average default rates. Using firm fixed effects and hence exploiting only variation *within* the *same* firm borrowing from both government and private banks, we find that government banks differentially favor political firms by providing them greater access to credit. Furthermore, this preferential access is even higher for political firms that are bigger, have greater propensity to default, have stronger and more successful politicians on board, and who come from constituencies with lower electoral participation. We also explore the time dimension of our data, and using loan *and* quarter level fixed-effects show that as a politician goes from losing to winning an election he gets greater access to credit from government banks.

We argue the political preference results above provide evidence of political corruption in Pakistan. We also present results that reject any alternative interpretation. For example, a "social lending" story based on government banks providing large subsidized loans to politicians for socially efficient projects is rejected. First, when we separate government banks between those with an explicit "social" objective[3] and those meant to be run on pure financial profitability, the political preference results only appear within the non-social government banks. Second, the preferential treatment of politicians by government banks remains even when we look at politicians on firms located in a completely different region from their constituency, where there is little rationale for the politicians to be undertaking social projects.

What are the economy wide costs of political rent seeking identified in this paper? Since our data captures the *universe* of all corporate lending in Pakistan we can use our estimates to provide an answer. While there are a variety of costs, we will by necessity focus on only two. First, as a lower bound the default amounts due to corruption can be thought of as transfer payments to politicians from tax payers. The dead weight lost from this is estimated to be between 0.15-0.30% of GDP each year. Second, there is an additional direct cost of corrupt lending if the money is poorly invested or not invested at all. There is strong evidence that this is the case as political firms borrowing from government banks are shown to have extremely poor *real* output and productivity. Given the market to book value of average investment in Pakistan, we estimate that an additional 1.6% of GDP is lost each year due to such investment distortions from corrupt lending.

Our work is related to the literature on corruption and specifically to state owned institutions as

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[3]Examples include banks set up for small and medium enterprises, women's welfare, agriculture, etc.

promoters of political rent-seeking. Shleifer and Vishny in two related papers (1993; 1994) theoretically examine corruption and how politicians contribute to the inefficiency of public institutions. In "Politicians and Firm" (1993) politicians use state transfers and bribes to gain political favors such as excess employment from state-enterprises. In our context the nature of political favors from government firms/banks is more direct — a greater access to and higher default on government loans — and the payment to government agents is in the form of direct political control over their transfers and promotions. In "Corruption" (1993) Shleifer and Vishny argue that the level of corruption is determined by "the structure of the political process". Our findings show that the degree of political rents earned are influenced by the design of financial institutions and the extent of electoral participation. Moreover, our results on the impact of a politician's strength and political environment on the level of rent-seeking complement the literature that examines how rents are affected by the nature of competition (Rose-Ackerman, 1978; Bliss and Di Tella, 1997, Ades and Di Tella 1999).

Our empirical results also complement both macro and micro-level empirical studies on political rent-seeking and corruption. Various cross-country studies such as Mauro, 1995, 1997; Keefer and Knack, 1995; and Hall and Jones, 1998 study the impact of corruption on growth and investment rates. Faccio (2004) finds that politically connected firms are more prevalent in countries perceived to be corrupt and firm value increases when individuals connected to a firm enter politics. Dinc (2004) uses bank-level cross-country data and shows that government banks increase their lending in elections years relative to private banks. While the cross-country work is sometimes criticized on its empirical methodology, our loan level data allows us to identify the process as well as magnitude of corruption at a micro level.

There are fewer studies that examine political rent-seeking at the micro-level. Fisman (2001) estimates rents earned through political connections as measured by public-firm returns in the equity markets in Indonesia. Johnson and Mitton (2003) examine the extent to which politically connected public firms in Malaysia benefit from capital controls. Our paper is not only able to estimate political rents earned by a wider set of politically connected borrowers and in the relatively more important banking sector, but it also provides economy-wise costs of such rent-seeking. Sapienza (2003) examines micro-level lending data from Italy and shows that state-owned banks charge lower interest rates than private banks and that this effect is larger in regions where the bank has political affiliations. Reinikka and Svensson (2004) consider the extent of corruption by local officials and politicians in the context of government transfer programs. While these results

4

are similar to ours, we are able to identify rents at the level of the individual politician and provide cleaner estimates of their size and costs and the nature of such rent-seeking. Like La Porta et. al. (2003), we too find evidence of "looting" from banks although in our case such corrupt lending is not to bank owner but to the politically connected.

The paper is organized as follows. The next section provides a description of the institutional environment and presents a stylized account of political rent-seeking. Section III describes the data, and Section IV examines whether there are political rents. Section V looks at how these rents are earned focusing on the role of government banks. Section VI asks whether rents are affected by the politician's strength and political participation in his constituency. Section VII shows that alternate explanations such as "social lending" by government banks to politicians, are unlikely. Section VIII estimates the economy-wide cost of rent-seeking and Section IX concludes.

II   Politics and Lending: The Institutional Environment

A.   Politicians and Corruption in Pakistan

While politicians are ostensibly elected to improve the welfare of their constituents and as such are agents that ought to promote broader social and economic goals, politics in Pakistan has always been closely linked to clientelism, rent-seeking and corruption. These factors are often cited as one of the biggest problems facing the Pakistani economy. *Transparency International,* an international non-government organization, ranks countries on corruption based on survey data from businesses. The organization has consistently ranked Pakistan high on their corruption index, with the second highest rank worldwide in 1996. This makes Pakistan an obvious candidate to study the nature and consequences of political corruption.

An outline of the political events from the late 80s shows a repeated pattern of alleged political corruption leading to political instability. During the past decade and a half, no elected government has been able to complete its five-year tenure. Since the end of General Zia ul Haq's military rule in 1988, four prime ministers and their assemblies have been dissolved by presidents or army generals on accusations of "maladministration, corruption, and nepotism". While real motives for the removal of elected assemblies may have been different, the presence of high levels of corruption and political patronage has made corruption a convenient excuse to dissolve assemblies.[4]

In light of repeated accusations of political corruption from both inside and outside the country,

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[4]See Appendix I for a detailed account of the main political events in Pakistan since 1988.

the government setup a National Accountability Bureau (NAB) in 2000. Its stated purpose is to prosecute those, including politicians, involved in large scale corruption. The bureau admits that "in terms of the amount of corrupt money changing hands, taxation departments, *state-owned banks and development finance institutions*, power sector utilities, and civil works departments probably account for the lion's share".[5] Independent international observers report similar accounts of corruption and rent seeking through "willful" defaults on bank loans, particularly from government banks. *The Guardian,* a British newspaper, reports on the link between politics, corruption and banking in Pakistan in its October 16th 1999 edition:

> "Pakistan's state bank ... moved to freeze the accounts of thousands of politicians, including those of the ousted prime minister and his family ... The move is seen as the start of a crackdown on the endemic corruption in Pakistan's political system .... In the eastern province of Punjab, military officials have asked banks to provide lists of anyone who has defaulted on a loan from a state bank — a notorious way of amassing funds by politicians of all parties."

B. The Banking Sector and Politics

The banking sector in Pakistan is dominated by state owned banks. Pakistan started off with a liberalized banking structure open to all private (foreign and domestic) banks but this changed in the early 1970s when the government nationalized all private domestic banks. By 1990 government banks had 92.2% of total assets while the rest belonged to foreign banks. While financial reforms in 1991 saw the privatization of two of the five major nationalized banks and entry of new private domestic and foreign banks, the role of the public sector remains fairly important constituting around 64% of domestic lending during our sample period.

Since our empirical analysis exploits differences across government and private banks, it is important understand how they differ. First, we should emphasize that all banks face the same regulatory environment. The financial reforms in the 90s saw the issuance of new and uniform prudential regulations to bring supervision guidelines in-line with international banking practices (Basel accord), and autonomy granted to the State Bank of Pakistan (SBP) to independently regulate all banks. Second, all banks have access to the same centralized credit information bureau (CIB) at the SBP that provides borrower details by tracking loan-level information such as

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[5] Quoted from their website, www.nab.gov.pk, on June 17th, 2004. Emphasis added.

outstanding loans and default etc.[6]

However, there is a significant difference in the management structure of government banks. The top hierarchy of government banks — both the board of directors and the president — is politically appointed. Career bankers can only progress upto a step below the presidency and therefore remain at the second tier of management or lower. The politically appointed top tier in turn influences the actions of bank officers through a system of rewards and punishments. Rewards take the form of promotions and sought after assignments. Punishments consist of intra-bank disciplinary action or removal from a position of power. Our informal discussions with bank officers reveals that politicization of state owned banks is indeed a pervasive phenomena. In the published words of the current governor of the SBP:

> "The recruitment, postings and transfers in all government ministries, departments and corporations are largely made either in exchange of outright pecuniary favours or on purely political considerations. The result is that government officers are saddled, barring some honourable exceptions, with incompetent and dishonest functionaries who are always trying to please their bosses or political masters while being completely oblivious to the grievances of the common man whom they are supposed to serve."[7]

Given this organizational structure of government bank, it is not surprising to see how lending decisions could be prone to political pressures and rent seeking and why such banks often have a large portfolio of bad loans:

> "Public sector banks ... have experienced serious deterioration in their loan portfolios mainly because of political interference in their lending and loan recovery decisions. .... A large part of this is a *willful default on loans that are accumulated with the intention of not being returned.* "[8]

C.   A Mechanism for Political Rent Seeking

Although there are a multitude of avenues for corruption and politicians interact with the banking sector in other ways that may in fact promote social welfare, the above institutional description suggests that political rents are prevalent in banking and offers a specific mechanism: Politicians

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[6]The data set given to us by the State Bank of Pakistan is part of this CIB database.

[7]Dr. Ishrat Hussain. "Six Tentacles of Corruption", published in the *Dawn*, a local paper, on November 21, 1998.

[8]"Strategy for Combatting Corruption in Pakistan", NAB presentation at the Seoul Conference on Combating Corruption In the Asia-Pacific Region, December 2000 - emphasis added.

obtain rents through government bank loans that are "accumulated with the intention of not being returned". Before we examine whether there is any evidence for such concerns, it is instructive to understand this mechanism. This helps in interpreting the results that follow and suggests what empirical checks to carry out.

Politicians are likely to choose government banks for seeking rents because of a couple of factors. First, soft budget constraints — a feature prevalent in government organizations all over the world (Kornai, 1979 and 1986) — lower the cost of capital for government banks and allows them to remain solvent despite high levels of default. In private banks such rent provision would be hard to sustain in the long run.

Second, as detailed above, the politicization of government banks allows politicians to exert influence and lead government banks to make bad loans. Politicians thus have an advantage over other individuals seeking rents as they can use their political muscle rather than monetary bribes which may have larger private costs. However, it is worth noting that non-monetary bribes are not the exclusive domain of politicians. Other actors such as the army and bureaucrats may also wield similar influence. While these actors are not the focus of this paper, their presence in the data only makes our estimates of political rent seeking a *lower* bound of the true rents.

While the costs of providing rents may be lower for government banks due to their soft-budgets, they are still likely to be important and this imposes a limit on how much rents a politically connected firm receives from a given government bank. This limit depends not only on how much a particular government bank is willing to expose itself to a bad loan, but also on the extent to which a politician can exert influence on the bank. This suggests several testable implications. First, political strength, in so far as it captures the influence of the politician on a government bank, should lead to greater rents for the politically connected firm. Second, environments where the politician is less likely to exert influence such as those where there is greater political accountability, are likely to see lower rents.

Finally, we would expect borrower selection across banks. Those that are only interested in rent-seeking and have political (or other) influence are likely to exclusively borrow from government banks. Since such borrowers do not have real investments to make they have little incentive to borrow from private banks where the loan has to be repaid. However, given that political influence benefits all borrowers, even those firms with real investment opportunities yet political connections, also prefer to borrow as much as they can from government banks. The difference is that such firms are also likely to borrow from private banks provided their investment needs are larger than the

8

rents government banks are willing to provide. This implies that firms that exclusively borrow from government banks, particularly the politically connected ones, are likely to be the worst in terms of default, those that borrow from both better, while the ones that borrow only from private banks are of the highest quality. We will examine these implications in the subsequent empirical sections.

Political rents arise not just by firms borrowing large amounts and defaulting, but by remaining in default without repaying. How do rent-seekers avoid recovery since these loans are collateralized? The Pakistani setting suggests a couple of answers. First, litigation is a long drawn process. Recovering default is not an easy task even for government banks, especially if courts are also subject to political influence. Second, there is reason to believe that even if the collateral were seized, it would not cover the defaulted amount. As we describe later on, anecdotal evidence suggests that the collateral backing the loan is often over-valued. A common way to create such over-valued collateral is through over-invoicing. Shleifer & Vishny (1993) provide a compelling example of over-invoicing in the case of a bottling factory in Mozambique where the owners prefer to import an overly expensive machine in order to earn rents. In the Pakistani context, an example is importing defunct machinery at inflated prices. The political borrower's influence then ensures that such overvalued machinery is accepted as collateral. Thus when the firm does default a few years later, preventing recovery or seizure of capital is of little concern.

The story we have presented is stylized but its broad patterns are likely to hold not only in Pakistan but in other countries where state organizations face soft budget constraints and political actors can exercise their influence on these organizations.

III   Data and Summary Statistics

A.   Data

We use two new data sets in this paper. The first has detailed loan level information for all corporate loans given out by banks in Pakistan from 1996 to 2002, while the second contains politician level electoral information for the two elections held during the sample period. We describe each of these below:

  1. *Loan Level Information*

The loan-level data is unique both in terms of its coverage, and detail. We have quarterly information on *the entire universe* of corporate bank loans outstanding in Pakistan during a 7 year

period from 1996-2002. The data was provided by the State Bank of Pakistan which supervises and regulates all banking activity in the country and as such, accurately captures this universe. The data is at the lender-borrowing firm-time level and traces the history of lending with information on the amount of the loan (principal and interest) outstanding by different loan types (fixed, working capital, etc.), default amounts and duration, and any litigation, write-offs or recoveries on these loans. In addition, we have information on the name, location and directorship of the borrowing firms and lenders allowing us to construct various borrower and lender level attributes.

Since this paper examines political influence on lending patterns, we focus on domestic lenders (both government and domestic private banks).[9] This leaves us with a panel data set of 68 private domestic and 23 government banks lending to 93,316 unique firms during the 25 quarters (April 1996 to April 2002) in our data period. The loans are all corporate or business-related loans. While there are fewer government banks in the data, they constitute about 64% of the overall lending.

As most of our tests exploit cross-sectional variation in the data, we collapse the time component of our panel by "cross-sectionalizing" the data at the borrower-lender level. We do this to avoid issues of serial correlation in the data and thus get conservative standard errors.[10] Cross-sectionalizing the data involves converting all values into real 1995 rupees (Rs.), and then taking the time average of each loan, making the loan the unit of observation with each loan identified by the borrowing firm and its corresponding bank. The cross-sectionalized version of our data has 112,685 observations or loans. This number is greater than the number of unique firms (93,316) because a single firm may be borrowing from more than one bank. Note that the data set is not a complete panel. The number of loans in any given quarter ranges from 22,361 in the beginning of sample to 54,554 towards the end, reflecting an overall increase in lending. Panel A of Table I summarizes these basic characteristics of the data set.

A further restriction applied to the data is to exclude all loans provided to government firms. While this is a separate question of interest, in this paper we are concerned with analyzing rent-seeking by politically connected firms. Including lending to government firms, which are backed by government guarantees, may confound the analysis since any preferential treatment may not reflect private rents.

2 *Election Information:*

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[9]Foreign bank lending is excluded. Including them does not affect our results.

[10]Rather than worrying about autocorrelation of errors across a given borrower-lender pair we avoid this issue by eliminating the time dimension. Moreover, this averaging is likely to reduce measurement error concerns in the data.

Given that the loan data period covers 1996-2002, there are two relevant national elections for this paper — general elections held in 1993 and 1997. We have the information on the names and party affiliations for all candidates in these elections including the winner, the number of votes each received and the total number of registered voters in each constituency. Panel B of Table I shows the number of seats and candidates for both the national and four provincial assembly elections.

B.   Matching Politicians to Firms

As outlined above, our loan level data contains information on the identity of the borrowing firm. For every loan, the data set contains the names and addresses of all directors of the firm. Using this information we merge the loan-level data with the candidate-level election data. This allows us to identify all firms which have a politician on their board of directors (BOD) — henceforth referred to as "politically connected" firms. A politician is defined as any individual who stood in one or more of the elections.

Since matching politicians to firms is a crucial part of our analysis, it is important that we highlight the potential problems in doing so. Given the literal matching on names, we can have both types of errors — (i) incorrect exclusion of true political loans (Type I), and (ii) false inclusion of a loan as political when it is not (Type II). The Type I errors arise as it is possible that a firm is politically connected but our algorithm is unable to find a name match in the election data-base.[11] Moreover, firms may be politically connected if their director is related or has close links to a politician and our algorithm is unable to take this into account. Type II error occurs when our algorithm matches a firm to a politician but the match is incorrect.[12] However, as in classical measurement error, both types of errors only work against us: Thus any differences we find in borrowing patterns between politically connected and unconnected firms are likely to be an *underestimate* of the true difference. Correcting our classification errors would therefore only strengthen our results.

Out of a total of 8,661 politicians in the election data, $2,073$ or 24% are matched to one or more firms in the lending data. Correspondingly from a total of $93,316$ firms in the lending data, $21,215$ or 23% are matched to a politician. Henceforth we shall refer to loans to these firms as "political loans". Although 23% of the borrowers were classified as political, these loans tend to be

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[11] This could be due to different spellings of names (since the data is in english there are often non-unique spellings of the names). Our algorithm tries to minimize this error by ignoring different titles in names and different spellings.

[12] The election data only has the politician's full name but no other information such as the politician's father's full name. Since different people may share the same full name such errors are possible. However, since we match on the politician's first, middle, *and* last name before classifying a loan as political, such errors are minimized.

much bigger as they represent 37% of overall lending in the data.

C.   Summary Statistics

Table II presents summary statistics for the variables of interest in our matched data. Panel A gives summary statistics for loan level variables. These include amount of loan outstanding, rate of default, and the fraction of loan recovered in case of default. While we do not have interest rate on the loan, we are able to proxy this using another data-source that contains interest rate information at the bank-branch level. Given the skewed loan size distribution (see first row in the panel), there might be a concern that the summary statistics are driven by "economically insignificant" small loans. For this reason we also report these statistics weighted by loan size. The mean loan size is Rs. 6.7 million, while the mean default rate is 16.9%. Similarly, banks recover at least part of the default about a fifth of the time the borrower defaults. Panel A also shows the distribution of loans by the type of loan taken by the borrower. A loan can be classified into one of four different types: fixed (long term), working capital (short term), letter of credit, and guarantees.

Panel B of Table II gives information on various borrowing firm attributes: The main attribute we use is whether a firm is politically connected. The table shows that while 23% of firms are politically connected they comprise 37% of overall lending. Panel B also presents other firm attributes which will be important to condition on when analyzing whether politically connected firms are treated differently. These variables are the size of a borrowing firm, it's location, whether it is a foreign firm or not, whether it belongs to a business group and how many creditors it has. They are described in more detail in Appendix I.

Panel C of Table II uses the election data to construct various politician specific variables such as the average percent of votes he gets in the two elections, whether he wins or not, and his average margin of victory as a percentage of total votes. We also construct a variable at the political constituency level that measure the electoral participation, or the fraction of registered voters who voted. We report the politician level summary statistics for politicians that were matched to the loan-level data.[13]

Before presenting regression results Table III compares various loan attributes between politically connected and unconnected firms and reveals differences between the two: Loans to the politically connected firms tend to be given in slightly smaller cities, and to firms that belong to

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[13]These summary statistics are very similar to those for unmatched politicians suggesting that our matching process did not introduce any selection effects.

larger business groups and have a greater number of creditors. While shorter-term working capital loans are the most common types of loans, politically connected firms get greater fixed investment loans. Interestingly, there is a also a sectoral compositional difference in politically connected borrowing, with such loans more likely in high capital intensity sectors such as Textiles, Energy, and Engineering. Since these differences may reflect different underlying attributes of politically connected firms we will condition on them in our empirical specifications. Nevertheless, they hint at rent-seeking if longer-term loans or loans in certain sectors are easier to default on. We will return to these issues towards the end.

IV   Do Politically Connected Firms get Preferential Treatment?

We consider the following reduced-form specification to estimate preferential treatment to politically connected firms:

$$Y_{ij} = \alpha_i + \beta_1.POL_j + \gamma_1.\mathbf{X}_{ij} + \gamma_2.\mathbf{X}_j + \varepsilon_{ij} \tag{1}$$

where Y_{ij} represents some outcome of interest such as loan size or default rate of a loan given by bank i to firm j. POL_j is a dummy for whether a firm is politically connected, $\mathbf{X}_{ij}, \mathbf{X}_j$ represent various loan and firm level controls such as the type of loan (working capital, fixed investment), firm location, industry, and size etc., and α_i is a bank fixed effect. β_1 in (1) is the coefficient of interest.

Table IV shows the results of estimating (1) on where the outcome measures, Y_{ij}, are the size of the loan, its return (η), and components of this return namely the interest rate (r), default rate (δ), and recovery rate (ρ). The relationship between η and its various components is given by the following accounting identity:

$$\eta = (1+r)(1-\delta) + \delta\rho \tag{2}$$

For each outcome we first run the simplest specification without bank fixed effects or any of the other controls.

A concern in this specification is that the political preference effect may be biased especially given the differences in loan characteristics between political and non-political loans noted in Table III. For example, larger firms may receive loans on better terms and also have politicians on

their boards. Similarly, banks may differ in their loan terms and monitoring and also lend in regions/sectors with more politically connected firms.

We address these concerns by including bank fixed effects and non-parametrically controlling for a large set of firm attributes. Specifically, in addition to the bank fixed effects (91), we also include separate fixed effects for firm size categories (5) based on a firm's overall borrowing, the number of creditors the firm has (8 categories from 1 to greater than 7), a firm's group size (3 categories), the city (134 cities) and industry (21 categories) it is located in, and the loan type (5 categories; fixed, working capital etc.). This results in a total of 268 dummy variables.

In addition, as our unit of analysis is a loan, there may be a concern that the results are driven by the majority of loans which are small in size. Since we are interested in economically significant differences, all regressions are weighted by loan size (expect of course those where the outcome variable is loan size itself). Moreover, we always cluster standard errors at the bank level.

Column (1) in Table IV shows that loans to politically connected firms are 42% larger. This falls to 28% when we include bank and firm attribute fixed effects but nevertheless shows the difference is not driven by covarying factors such as size, location, industry type or group affiliation of the borrowing firm. Politically connected firms obtain better access to credit.

Columns (3) and (4) show that in addition to better access, politically connected firms also face significantly lower "prices": The rate of return on political loans is 6-7% points lower and is robust to the bank and firm attribute fixed effects. The difference is both statistically and economically significant.[14]

A break down of the net interest rate into its three components in Columns (5) through (10) shows that the preferential treatment is driven primarily by the higher default rates that the politically connected firms enjoy. Column (5) shows that politically connected firms default 8% points more than unconnected ones. On a base default rate of 15%, this implies that the politically connected are able to default 50% more. Column (6) shows that the difference only decreases slightly to 6% points after inclusion of variables that proxy for various firm attributes, suggesting that it is not driven by other (than political connectedness) firm attributes.

In contrast to default rates, Columns (7) through (10) show little difference between the recovery rates on defaulted loans and the interest rates charged, between politically connected and

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[14]The constant in column (3) is less than a 100, which means that on average loans are losing money! While this might appear puzzling at first, Table V will show that this is driven by government banks making extremely poor loans even to non-political firms. Private banks in comparison have higher returns of 108.1%.

unconnected firms. Thus the preferential treatment in the "price" of loans seen in columns (3) and (4) is driven by the politically connected firms getting away with much higher default rates, rather than lower recovery or interest rates.

The results of Table IV suggest that politically connected firms receive preferential treatment on two accounts: First, they are able to borrow larger amounts and second, their default rates are higher. Together they imply that politically connected firms default significantly larger *amounts*. To the extent that these defaulted amounts remain unpaid, the politically connected are able to "earn" more than double the rents of the unconnected. For the remainder of the paper we will focus on both these margins of preferential treatment, i.e. getting bigger loans and defaulting more on each rupee lent.

We interpret the existence of the political preference effect as evidence of rent-seeking on the basis of political connections. In the following sections we explore further implications of such rent-seeking behavior both in order to better identify the political preference effect but also to provide a deeper understanding of how rent-seeking works. Identification issues aside, one may be concerned that there are other (beyond rent-seeking) reasons to see a political preference effect. For example, politically connected firms may generate higher social returns and therefore receive preference by government banks with more "social" objectives. We will return to these issues in section VII, and show that such alternate explanations are unlikely.

V Political Rents and the Role of Government Banks

Given that government banks are more susceptible to political coercion because of their organizational design, we expect them to provide greater rents to politically connected firms. We examine whether this is the case for the two measures of preferential treatment, default rate and access to credit.

A. Default rate:

We examine preferential treatment in default rates through the following specification:[15]

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[15] For the sake of notational convenience, we abuse notation slightly by using the same coefficient labels across different specifications, In particular, the β's are not the same across these specifications. Our general convention is to label the primary coefficient of interest as β_1.

$$DR_{ij} = \alpha_i + \beta_1.POL_j * GOV_i + \beta_2.POL_j + \gamma_1.\mathbf{X}_{ij} + \gamma_2.\mathbf{X}_j + \gamma_3.\mathbf{X}_{ij} * GOV_i + \gamma_4.\mathbf{X}_j * GOV_i + \varepsilon_{ij} \quad (3)$$

where DR_{ij} is the default rate on bank i's loan to firm j, GOV_i is a dummy for whether the lender is a government bank and the β's are the coefficients of interest. If political rents only arise from government banks we would predict that β_1 would be positive and significant while β_2 would be close to 0.

While this specification also includes bank *and* firm attribute fixed effects, it goes further by interacting the firm attributes fixed effects with the type of bank (government or private) i.e. we allow each firm attribute to have a different affect for a private or government bank. Doing so improves identification of the β coefficients.

Columns (1) through (5) in Table V show that the higher default rates that politically connected firms enjoy arise *entirely* due to loans from government banks. Columns (1)-(2) first run the original specification (1) by restricting the data to loans from government banks only and show that loans to the politically connected firms have 11% points higher default rates. This result remains robust to conditioning on loan characteristics, and bank and firm attribute fixed effects.

Columns (3)-(4) repeat the same exercise for loans from private banks only. There is hardly any difference in default rates between the politically connected and unconnected firms in private bank loans. If anything, after conditioning on various loan level characteristics (Column (4)), politically connected firms have 0.8% points lower default rates on private bank loans.

Column (5) runs specification (3) and bears out the same result in the full data that includes both government bank and private bank loans. The coefficient of interest is the double interaction term (β_1) that shows politically connected firms are able to default 9.9% points more than the unconnected in loans from government banks relative to loans from private banks. Moreover the small negative coefficient on the dummy for political firm (β_2) shows that if anything, politically connected firms have slightly lower defaults suggesting either greater monitoring or better selection for politically connected firms by private banks. These results provide support for interpreting the political preference results as rent seeking by politicians since they only arise in government banks which are institutionally directly influenced by politicians.

An interesting aside is that while the government banks do treat politically connected firms more favorably, they also face high default rates in general (Column (1)). By focusing on political

connectedness we are only capturing one source of "influence". There may be a variety of other avenues such as alternate forms of status (bureaucracy, army, insider networks, familial ties etc.) and direct bribes that may also contribute to why government banks face higher default rates.[16] In this paper our focus is only on political rents.

Selection effects:

Do government banks face higher default rates because they select worse borrower types - where type is proxied by average default rates - and/or because they lend greater amounts to the worse types? We will consider the first selection margin - of choosing whether to lend to a firm - here, and the second margin below when we examine access to credit.

Note first that if, as one would expect, loans from government and private banks have equal seniority, it is unlikely that a firm will be able to default on one but not on the other. This suggests that the higher default *rate* faced by government banks is because they exclusively deal with worse borrowers, and not that a given firm that borrows from both bank types, defaults more on its government bank loan.

We can check whether this selection margin is indeed present in the data by including firm fixed effects in specification (3) and restricting the data to firms that borrow from both types of banks. The firm fixed effect enables us to ask whether the *same* politically connected firm defaults at a higher rate on its government versus private bank loan. Column (6) shows that this is not the case, since the default differential reduces to a much smaller and not significant 1.4% points. Thus, as the political rent-seeking mechanism predicted, the evidence does show that government banks exclusively lend to the worst of borrowers. In fact, simply comparing average default rates for firms that (i) borrow only from government banks; (ii) borrow from both bank types, and (iii) borrow only from private banks - does show that the first have the highest average default rates (25.7%), followed by the second (16.9%) and then the last category has the lowest default rates (5.4%)

B.   Access to Credit:

Does preferential access to credit also exclusively arise through government bank loans? An important concern when comparing the amount firms borrow is that this amount may differ simply due to different credit needs of the borrower (a demand effect). In other words, the "preferential

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[16]Government banks may also be more inefficient due to their inability to solve various principal-agent problems within the bank. However, in a related paper (Khwaja and Mian 2004b), we show that this is unlikely and that the higher default faced by government banks is due to bad lending to "influential" borrowers.

treatment" in access to credit identified in Table IV earlier, may also arise if politically connected firms also happen to have large investment needs. In other words, to argue for political preference in access to credit, one should condition on a firm's credit demand i.e. the hypothetical comparison is for two firms with the same credit demand, does the politically connected one receive a larger loan from the government bank? While we were unable to perfectly do so earlier, since we now exploit differential treatment for the same firm between government and private banks, we can use firm fixed effects in the following specification:

$$L\,Si\,ze_{\bar{i}j} = \alpha_j + \beta_1.POL_j * GOV_{\bar{i}} + \beta_2 GOV_{\bar{i}} + \varepsilon_{\bar{i}j} \tag{4}$$

Where $L\,Si\,ze_{\bar{i}j}$ is the amount (logarithm) lent by *bank-type* (government or private) i to firm j, α_j is a firm fixed effect and $GOV_{\bar{i}}$ is a dummy for whether the loan was from a government-type bank. β_1 is the coefficient of interest that estimates whether the *same* politically connected firm is able to get larger loans when it borrows from the government as compared to private bank. Since we are interested in a given firm's total loan uptake from the two types of banks (government and private), we aggregate our observations to the firm and *bank type* level (hence the subscript $\bar{i}$ refers to bank-type not bank). Thus for every firm we have two observations of our dependent variable: The total amount it borrows from all government banks and that from all private banks. This aggregation allows us to capture firms that have greater access to credit both because they borrow more from a given bank and/or borrow from a greater number of banks. Moreover, since we use firm fixed effects we restrict our data to firms that borrow from both types of banks. Firms that borrow from a single bank-type are not included as they will be absorbed by the firm fixed effect and not affect our estimates.

Column (1) in Table VI shows that while government banks generally provide larger loans than private banks, they lend even larger amounts — 39% more — to the politically connected firms. The use of firm fixed effects strengthens our causal interpretation: Since we have taken into account all attributes of the borrowing firm, unobserved and unobserved, we are confident the political preference we find is a result of differential treatment and not differences across firms. Moreover, as this preferential treatment stems from government banks, this supports our contention that it arises through the exercise of political power.

Further Selection effects:

We showed above that along the first selection margin i.e. the choice of whom to lend - govern-

ment banks fare poorly as they exclusively lend to the worst type of borrowers in terms of average default rates. Do government banks also perform poorly along the second selection margin i.e. conditional on choosing to a lend to a firm, to they lend greater amounts to the worst firms?

Columns (2)-(3) in Table VI check for further selection effects by asking whether certain types of politically connected firms are given greater access to credit. This is done by using firm fixed effects as in specification (4) but also introducing a triple interaction term i.e.

$$L\,\mathrm{Si}\,ze_{ij} = \alpha_j + \beta_1.POL_j*GOV_i*TYPE_j + \beta_2.POL_j*GOV_i + \beta_3.GOV_i*TYPE_j + \beta_4 GOV_i + \varepsilon_{ij} \quad (5)$$

where $TYPE_j$ is the borrowing firm's size (proxied by logarithm of overall amount borrowed) or its average default rate. The coefficient of interest is on the triple interaction term (β_1).

Column (2) shows that government banks lend more to the larger of the politically connected firms. A standard deviation increase in firm size as measured by the logarithm of the total amount it borrows, is associated with 11.5% greater amount that the politically connected borrow from government as compared to private banks.

In addition Column (3) shows that government banks systematically lend more to the worst (highest average default rates) of the politically connected firms. The coefficient on the triple interaction term shows that government banks lend 28% larger amounts to those politically connected firms that are in default as compared to private banks.

Tables V and VI paint a stark picture of the political rent seeking environment and the role of the public sector. An environment characterized by the prevalence of politically connected firms that default not because they face adverse business shocks but rather because they *can* default. The worst of such politically connected firms — those that default a lot — exclusively borrow from government banks. Moreover, even after accounting for this poor initial selection, we find that government banks provide greater rents by lending more to the larger politically connected firms and even more so to the worst of such firms.

VI Do Rents vary with Political Strength and Participation?

Our previous results suggest that the politically connected enjoy rents by defaulting more on loans from government banks. We now explore whether this preference varies by the strength of the

firm's politician (as proxied by the number of votes he gets and his probability of success), and the degree of political participation in the politician's constituency. We also ask whether winning an election has an impact on the ability to earn rents. While we can examine political preference on both margins, greater access to loans and higher default rates, we found no robust differences in default *rates* and will focus on the margin that does matter, preferential access to credit.

A.   Political Strength:

Do firms with stronger politicians default even more on government bank loans? In order to answer this question we run the following specification:

$$L\,\mathrm{Si}\,ze_{\bar{i}j} = \alpha_j + \beta_1.POL_j * GOV_{\bar{i}} * PSTR_j + \beta_2.POL_j * GOV_{\bar{i}} + \beta_3 GOV_{\bar{i}} + \varepsilon_{\bar{i}j} \qquad (6)$$

where $PSTR_j$ are different measures of a politician's strength. These include: (i) $PERVOTES$, the percentage of total votes a politician wins; (ii) $WINF,$ the fraction of times a politician wins; and (iii) $VICTMAR$ (victory margin), the difference in percentage votes between the winner and runner up in case the politician won. Since we have two elections and politicians can run in multiple constituencies, we take the average of a politician's individual measures in each election and constituency. As in specification (4) we aggregate the data to the bank-type and firm level and restrict to firms borrowing from both bank types.

Columns (1)-(3) In Table VII present the results for each of these variables with the log of loan received as the dependent variable. The coefficient of interest is the triple interaction term (β_1) that reveals whether firms with stronger politicians are able to earn even higher rents from government banks. Table VII shows that along all measures of a politician's strength, firms with stronger politicians borrow more from government banks.

Column (1) shows that while all politically connected firms are able to borrow more from government banks, a 10 % points increase in the number of votes a politicians obtains is associated with a further increase of 7% in the amount his firm is able to borrow from the government. Columns (2)-(3) similarly show that a 10% points increase in the fraction of times a politician wins and in his victory margin respectively are associated with his firm borrowing 7 and 6% more from the government.

B.   Political Participation:

Table VII also examines whether the political environment has an effect on rent-seeking. In particular, is a more active electorate able to monitor and check its politicians? We run a similar specification to (6) except that instead of the politician strength measures we use a measure for electoral participation in the politician's constituency. This measure, *ELECPA R*, is the fraction of registered voters who cast their vote in the constituency.

Column (4) provides evidence that such electoral checks are effective. Firms whose politicians run in constituencies with 10 % points higher electoral participation receive 9% smaller loans from government banks than they would have otherwise. Recall that because we have firm level fixed effects, our result cannot be driven by simple spurious correlations such as firms in less active political constituencies are more likely to default. Political corruption is thus significantly worse in weaker political environments, a point that has been highlighted by others at a cross-country level (Shleifer and Vishny 1993).

C.   The Impact of Winning

Our results have suggested that it is political status that matters for rent-seeking i.e. as long as a firm has a politician on its board it obtains preferential treatment. While such rents are affected by a politician's strength, what happens to a politically connected firm's borrowing when its politician wins or loses an election? To what extent does being in power affect the firm's ability to earn rents?

Table VIII answers this by exploiting the time series component of our data. We use quarterly rather than cross-sectionalized data (see section III above), and restrict it to quarters where an elected government was in power[17] and to only those politically connected firms that experienced a *change* in whether their politician was in power during our data period. Moreover, since we are really only interested in differences across private and government banks, we collapse the data further to the bank *type*-firm level. We run the following specification in this sub-sample:

$$Y_{\bar{i}jt} = \alpha_{\bar{i}j} + \alpha_t + \beta_1.WIN_{jt} * GOV_{\bar{i}} + \beta_2.WIN_{jt} + + \varepsilon_{\bar{i}jt} \tag{7}$$

Where $Y_{\bar{i}jt}$ are the outcome variables for the loan from bank-type (government or private) $\bar{i}$ to firm j during quarter t. WIN_{jt} indicates whether the firm's politician was in power (i.e. had

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[17]We exclude quarters in between elections and those during 1999-2002 when there was no elected government (see Appendix I).

one the previous election) in a given quarter. Since we include firm fixed effects we only run this specification for the politically connected firms that experienced a change in whether their politician won an election during our data period. Including those firms that did not, will not affect our estimates since they are subsumed in the firm fixed effect and so we take the more conservative approach and exclude them.

While we find no robust impact of winning on default *rates* on government banks, Table VIII shows a significant impact on *access* to credit i.e. winning affects the ability of a politically connected firm to borrow and hence its *amount* of default.

Column (1) in Table VIII shows that, controlling for all firm-level factors, political firms increase the amount they borrow from government banks by 12% as compared to private banks when their politician wins an election. Thus winning politicians exercise their increased political strength to obtain even greater preferential access to credit from government banks. Column (2) shows that this result is not affected by time trends since it is robust to the inclusion of quarter fixed effects.

While the inclusion of both firm and bank fixed effects addresses the vast majority of identification concerns, a skeptic may argue that there are biases arising from omitted variables at the *combined lender-borrower* level i.e. characteristics that are specific to a bank-firm pair that affect both the outcome and whether a firm is politically connected. Column (3) addresses these by including interacted *bank-type* and firm fixed effects and shows that the results are reduced slightly but remain significant (6% larger loans). Note that this may be "over-correction" since it is unlikely that there are biases arising from not controlling for omitted bank type-firm variables.

Note that the effect of a firm's politician being in power is only a third of the overall political preferential result (Table VI). While winning does matter, what matters even more is whether a firm director is a politician (regardless of whether he is in power). This is not surprising for a couple of reasons. First, a significant number of firms appear to be "politically hedged" as a third have multiple politicians on their board (this goes up to 86% if we weight by how much these firms borrow) while 11% (37% if weighted by loan size) have politicians from different parties. Second, political lines in Pakistan are quite fluid as politicians frequently switch parties, and often have close family members in the opposing party. In other words, there is a lot of political hedging not only at the firm level but also at the politician level. This suggests that a politician who is out of the government may still wield substantial influence both because he is likely to return to power soon and because he has links with those currently in power even if they are from a different political party. To put it differently, in terms of rent-seeking, *entry* into the "political network"

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has first order importance followed by the politician's relative position within this network.

VII   Alternate Explanations

The results on the impact of political strength, checks on the politician's power through electoral participation, and the impact of winning, not only shed light on the nature of such rent-seeking — that it occurs in terms of preferential access to credit from government banks — but also lends further support to our causal interpretation i.e. that political preference is due to the exercise of political influence and reflects rents.[18] However, before estimating the economy-wide costs of such rent-seeking, we will examine whether there are other explanations that can plausibly explain these findings.

Note first that alternate explanations that arise on account of identification concerns are unlikely. Omitted variables at the firm or lender level, such as firm "influence" or lender inefficiency, cannot explain our results since they remain robust to firm and bank level fixed effects. Moreover, as we discussed before, any measurements errors in identifying politically connected firms, are likely to under-estimates the political preference results. Similarly, while there may be "evergreening" concerns that private banks are better able to hide their poorly performing loans, as section VIII will show, this is unlikely since firms borrowing from private banks are also more productive in terms of real output measures. More importantly, even if private banks do hide bad loans, this still cannot explain why government banks treat politically connected firms better than unconnected ones, or why they do not hide the higher default rates of politically powerful. Therefore we only consider alternate explanations that also predict a (correctly identified) political preference effect.

A.   Social Lending

The most likely alternative explanation for our political preference results is based on the idea of "social lending". The explanation relies on two key assumptions: (i) Firms with politicians on their boards are more likely to engage in projects with low private but high social returns. (ii) Government banks value social returns more than private banks. Given these two assumptions, one could argue that our political preference results do not reflect rent-seeking. Instead they reflect

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[18]We should emphasize that we are not attempting to distinguish how these rents are distributed. They may be mostly appropriated by the politician and/or other firm owners. Even if the politician obtains all the rents, he may have to spend resources on his supporters to retain political influence. From our perspective, these are all forms of rent-seeking.

the mutual desires of politicians and government banks to undertake "social" projects for the greater public good. These projects may not have high private returns, but the social externalities make them worthwhile from a welfare perspective.

While such an alternate explanation is theoretically plausible, it is quite unlikely given the institutional details as well as the history of politics and politicians in Pakistan. For example, although certain government banks may have social lending goals, our dataset consists of *private* corporate loans. In other words, for the social story to hold, one would have to believe that politicians in Pakistan are borrowing money *privately* for achieving a social objective. This is unlikely because large social projects are mostly carried out either by directly lending to the targeted social class (such as small farmers), or intermediated through large government owned firms. In other words, to our knowledge, never has a social scheme been explicitly implemented by governments through private loans to politically connected firms. Moreover, politicians generally belong to the richest segment of the society and private lending to them with high default rates is unlikely to be socially beneficial.

Some of the empirical results so far also make it harder to believe the social explanation. First, recall that the preferential treatment results hardly change when conditioning on an extensive set of variables which proxy for social attributes of the loan (Tables IV and V). These include the location of the loan (lending to small cities), the lender (certain lenders may have more social objectives), the size, number of creditors and group affiliation of the borrower (lending to small borrowers with few creditors) and the type and industry classification of the loan (certain industries may generate greater social value).

Second, the social lending explanation becomes less plausible when we consider the political preference results in Tables VII and VIII. To generate the result that firms with stronger politicians receive even greater preferential treatment, one would need to assume that not only are politically connected firms more likely to undertake social projects, but that this increases the stronger its politician is in terms of the votes he obtains, his victory margin etc. Moreover, since the preferential treatment to firms is larger if their politicians are from constituencies which have less electoral participation, one would also have to assume that firms that have politicians from such constituencies are more likely to invest in social projects. This becomes even less plausible given that most of these firms are located in the major cities and not in the politician's constituency. Similarly, since we also find that preferential treatment by government banks to the *same* politically connected firm increases when the firm's politician is elected, the social lending explanation would

require that such firms be more likely to undertake social investments when their politician is in the power than when they are not.

Nevertheless, regardless of the *a priori* implausibility of a social explanation, there is direct empirical evidence to refute it. Table IX presents two sets of results that check for the presence of social lending and show that there is little evidence for it.

If mutual social objectives are driving political preference for government banks, then one would expect these results to be much stronger for those subset of government banks that are explicitly set up with a social objective in mind. These include government banks set up for agricultural development, women's welfare, small and medium enterprises etc. In total, 25% of the government loans belong to such explicitly social government banks. The remaining government banks are meant to be run on financial basis and as such have no explicit social goals. Columns (1) and (2) show that on both measures of preferential treatment, i.e. default rates and loan size, there is no political preference within the explicitly social government banks, while it is large and significant for the non-social government banks. This is in stark contrast to what the social lending explanation would predict.

Along similar lines, we perform another test of the social explanation based on the observation that if politicians use their firms to generate social returns one would expect that this effect is greater for firms that are located in their own constituency. Columns (3) and (4) separate politicians by whether they own a firm in the province of their constituency or in a separate province altogether.[19] The results show little evidence in support of the social lending explanation as politically connected firms that are not located in the politicians's province *also* receive the same degree of preferential treatment as those that are not.

VIII   The Costs of Rent-Seeking

This section estimates the costs of rent-seeking to the economy. At the outset we should make clear that we only concentrate on the subset of costs that can be directly inferred from our estimates. Specifically, we only consider costs from the increased taxation necessary to bail out bad government loans, and from the foregone value when corrupt loans are poorly invested. There are likely to be a variety of other, potentially larger, costs that we ignore due to measurement difficulties. For

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[19]Pakistan is divided into four main provinces (states). These states are quite different both in terms of their ethnic composition and political preferences. A politician's constituency is a strict subset of a province. Given the differences in provinces it is quite unlikely that a politician from a constituency will be interested in increasing the welfare of people in another province more than in his own.

example, we ignore general equilibrium effects such as distortions regarding entry and composition of firms, compromised legal institutions, and "wasteful" activities that individuals and firms perform in getting access to political networks. Given these costs, our numbers are likely to be underestimates.

A. The Dead Weight Loss Of Taxation

At a minimum, the loans that go into default due to political corruption can be thought of as a transfer payment to politicians. The transfer payment is made by the tax payers as they are the ones bailing out government banks. To estimate the taxation dead weight loss resulting from such transfers, we need to know the total amount defaulted per year due to corruption. Moreover, since the "natural" default rate is not zero, we need to subtract the default amount that would have accumulated *even if government banks had lent efficiently.* Assuming private banks are lending efficiently, which is reasonable since we found no evidence of corruption in private banks,[20] we can use the private default rate (i.e. 6%) as the natural rate of default.

The defaulted amount by politicians in government banks over and above the natural rate of default faced by private banks, represents the divergence from optimal lending patterns. With an average default rate of 30.8% on government bank loans to politically connected firms, this suggests that 24.8% of lending is the *incremental* loss due to corruption. Given total government bank lending of *Rs* 190 billion ($ 3.2 billion) in 2002, 38% of which was given to politically connected firms, the total additional revenue lost from political corruption comes out to be Rs. 17.9 billion annually (0.38*190*0.248).

Note that we take a conservative approach by both treating part of the government bank default as "natural" and only counting those loans that are given to politically connected firms. As discussed earlier, given the pervasiveness of corruption in government banks it is likely that even the "non-political" loans have substantial elements of rent-seeking. Moreover, column (1) in Table V showed that these loans also face a high default rate (19.9%). Given that politicians use their power to expropriate rents from government banks, it is very likely that most of the loans we classify as non-political also reflect rent seeking by other powerful agents such as the bureaucracy, army, or friends and relatives of politicians. If we count the non-political default on government banks as corruption motivated as well, then the revenue lost from corruption comes out to Rs. 34.3 billion annually (17.9 + 0.62*190*0.139).

We use conservative DWL estimates that put the marginal costs of taxation at around 40% for

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[20]See Mian (2004) for further evidence that private banks are lending efficiently.

every dollar raised (Ballard et al., 1985). Note that others have estimated costs upto a dollar per dollar of revenue raised (Feldstein 1996). Using the more conservative marginal cost numbers, we get cost estimates ranging from Rs. 7.2 to 13.7 billion in losses each year, or around 0.16-0.3% of GDP annually.

B.   Cost of Investment Distortion

It would be unrealistic to assume that wealth transfer is the only distortion resulting from corrupt lending. If influentials like politicians think that they are getting "cheap" money from government banks, they are unlikely to efficiently invest their loans. This would lead to rates of return to investment that are lower than would have been otherwise. In the extreme they may not invest at all and simply consume the money or deposit it in offshore swiss accounts. To make estimates of the cost of such investment distortion, one needs to know the rate of return of corrupt lending.[21]

While one could make different assumptions about this return, it is simpler to present a higher bound where the defaulted amount is assumed to generate zero net returns (i.e. you just get back the book value of investment).

The cost of investment distortion is the cost of losing future streams of income generated by the defaulted amount in addition to the previous DWL costs. The former is estimated as the net present discounted value of the investment amount. Given that the market price of a firm reflects the present value of its underlying assets, we can impute this net present value by subtracting book from market value.

Using this approach and a Market to Book ratio for Pakistan estimated at 2.96 (IFC emerging market database — EMDB), we get annual costs of Rs. 35-67 billion, or 0.8-1.6% of GDP each year. This is estimated as $(2.96 - 1) * ($Inefficient Government Lending$)$ where the estimates vary depending on whether we only consider the defaulted amount by the politically connected (Rs 17.9 $billion$) or all government default in excess of natural default (Rs 34.2 $billion$) as the size of inefficient government lending. Note that we are being quite conservative in only considering the *defaulted* government lending as inefficient since, as we show below, it is likely that even the non-defaulted government lending is being invested poorly.

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[21]Note that in well-functioning credit markets, these poor/no investments would not affect aggregate investment since financial markets would compensate for this leakage by lending more. However financial markets are hardly perfect and even if they were, such costlier lending will impose additional costs.

C. What is the real Rate of Return on Political Loans?

The above investment distortion cost only arises if the real return on corrupt lending is less than that on non-corrupt lending. The loan-level financial data used so far does not reveal the real productivity of the loan. For example, it is possible that a politically firm defaults becasue it can, but still invests the loan efficiently. In this section we use real output data to check whether government loans do indeed generate lower real investment returns. Anecdotes suggest that government loans were often simply consumed particularly, in loans given industries the government was promoting such as textiles. Instead of real investments, looters would import defunct machinery at inflated prices through over-invoicing. This machinery would then serve as collateral for the government loan. After several years, bankruptcy would be declared and at best the government bank would liquidate a few worthless assets. Examining Table III indeed shows that a high fraction of politically connected firm borrowing was in the Textile industry.

Table X presents direct evidence for lower quality government lending in the Textile industry. We use three measures of firm quality: Whether a textile firm exported any amount in the three year period during 2000-2003, the value of its exports aggregated over the three years, and export "productivity" measured as exports as a fraction of total loans to the firm. These are plausible measures of firm quality since the textile industry in Pakistan is mostly export driven and it is unlikely that a high quality firm would not (eventually) move into exporting. Moreover, unlike balance sheet information, which for most of these firms is unaudited and hence of highly suspect quality, export information is measured through the banking sector (we obtained the information from the State Bank) and therefore harder to manipulate. This data is matched by the name of the textile firm to firm names in our data.

Before presenting the results on government lending quality, Columns (1)-(2) first show that our quality measures are indeed related to borrowing performance. Firms in the textile industry with higher default rates are less likely to be exporting. Columns (3)-(8) next present evidence that not only do government banks lend to lower quality firms but this poorer lending is even more severe if these firms are politically connected.

Columns (3)-(4) show that while government bank loans are 19% points more likely to be provided to non-exporting textile firms, within government bank loans, those to the politically connected firms are 13 % points more likely to be given to non-exporting textile firms. Columns (5)-(6) show that while government banks generally lend to firms with 55% lower exports, this

result is again driven by the politically connected as they have 47% lower exports compared to the non-connected textile firms the government lends to. Finally, Columns (7)-(8) show the same result in terms of export productivity: While government loans have 24% lower productivity, those to the politically connected have 21% lower productivity than government loans to politically unconnected firms. Table X thus supports our contention that government lending, particularly to the politically connected is likely to be of poorer quality.

Our investment costs estimates assume two extremes — either normal returns to investments on the defaulted amounts or no returns at all. Examining real measures of firm quality suggest that the defaulted amounts are unlikely to earn the same rate of return as in the economy. The costs are therefore likely to be closer to the upper estimate, giving a total cost (i.e. including DWL) of 1.9% of GDP every year. Although this estimate is large, it is comparable to that in cross-country studies (Mauro, 1995).

IX   Conclusion

This paper has tried to elaborate on the nature and consequences of rent-seeking by carrying out a detailed micro-level analysis. The techniques used are relatively straight-forward and can be replicated in other contexts to examine the role political and other avenues of corruption play in the economies of both developed and developing nations. For example, the rent-seeking identified in this paper is likely to have an impact on the structure of industry. Differential access and subsidized credit to the politically connected is likely to affect entry and exit of firms and their competitive strategies in general. Exploring such general equilibrium effects offer promising areas for further research.

A question that arises given our findings is how the rents affect the decision to enter politics and the actions chosen by and success of politicians. If greater wealth has an impact on political entry and strength, then our results suggest a feedback mechanism where the influential individuals, particularly the most corrupt, progressively increase their wealth and influence. At the same time the political process may impose checks on the extent to which politicians are able to obtain rents. These checks may in turn depend on whether the politician is able to distribute enough rents to retain power. How the nature and extent of rent-seeking affects the political environment presents another interesting direction of future enquiry.

Finally, a positive policy interpretation of our results is that private banks do not provide

any political rents and their low default rates suggest the lack such concerns in general. This lends credence to the government's current push for privatization, where since 1990 3 government banks have been privatized. However, we should caution that our results do not suggest that full privatization will eliminate rent provision. If government lending is reduced significantly those with influence may choose other avenues to seek rents. Whether these alternates are costlier and hence reduce overall rents remains to be seen and is an interesting area for future work, especially since emerging economies are increasingly carrying out such reforms.

Appendix I

Politics in Pakistan:

The 1988 elections took place after over a decade of limited democracy under General Zia ul Haq's military rule and resulted in the victory of one of the two main political parties in Pakistan, the Pakistan People's Party (PPP) under Ms. Benazir Bhutto. However, in what was to become a recurring theme in the 90s, Ms. Bhutto's government did not serve its full five year term courtesy of the controversial 8th amendment to the constitution. This amendment, passed under General Zia's regime, gave the President the right to dissolve the National Assembly at his discretion. The amendment was invoked three times in the 1990s, each time its use ostensibly justified by the prevalence of corruption in the governments. It's first invocation in 1990, by President G. I. Khan, saw the dismissal of Ms. Bhutto's government and dissolution of the national and provincial assemblies. Elections in the same year saw a coalition led by the PPP's main opposition party, and Pakistan's other main political party, the Pakistan Muslim League (PML) emerge victorious under the leadership of Mr. Nawaz Sharif.

However, within less then three years of its rule, the President again invoked the 8th amendment and dismissed Mr. Sharif's government in 1993 citing "maladministration, corruption, and nepotism". While the government was reinstalled the following month by the Pakistan Supreme Court, continued governmental gridlock lasted until the Chief of Army Staff brokered an arrangement under which both President and Prime Minister resigned and new elections were held.

The 1993 elections saw Ms. Benazir Bhutto regain power but for the third time in a row, her government was also dismissed in 1996 by the new President, Mr. Farooq Leghari, charging it with corruption and mismanagement of the economy. Elections in 1997 saw the political "see-sawing" continue as Mr. Sharif's coalition returned to power again. In an effort to prevent yet another dissolution of an elected government, Mr. Sharif amended the constitution by taking away the power of the President to dismiss the government. However, after a series of moves interpreted as strengthening his political power, Mr. Sharif tried to dismiss the Chief of Army Staff, General Pervez Musharraf in 1999. This resulted in the General designating himself as the Chief Executive, declaring a state of emergency and suspending Mr. Sharif's government. The current government was elected under general elections held in October 2002 with the main leaders of the two previous parties, Mr. Nawaz Sharif and Ms. Benazir Bhutto not permitted to run in the election and General Musharraf retaining his position as Chief of Army Staff and the President.

Firm Attributes:

(i) *Size.* The total borrowing by a firm from all the banks in the country (including foreign, domestic, and government banks) is used as a proxy for borrower size. We divide firms into five size categories using 99, 95-99, 75-99, 50-75, and 0-50 percentiles as the cutoff criteria. The cutoff criteria were used given the skewed distribution of lending, with 55% of total lending going to the top 1% of firms by size.

(ii) *Location.* This variable captures which type of city or town the borrower belongs to. Cities are classified by their population size into three categories: big, medium and small. Borrowers located in the three largest cities (city population greater than 2 million) are coded as big, while those in cities with population between 0.5-2 and 0-0.5 million are coded as medium and small respectively.[22] The distribution of lending across city size is also highly skewed with the large cities getting 74% of the lending.

(iii) *Foreign.* This variable captures whether the borrower is a foreign firm or not. There are only 212 loans given out to foreign firms in the data, but they represent about 4% of the overall domestic lending.

(iv) *Group Size.* Using information on the names and tax identification numbers of all directors of a firm we can classify firms into "groups" based on their ownership information. In particular, firms are assigned the same group if they have a director in common. Mian and Khwaja (2004a) analyze these group linkages in detail, but for this paper what is important is that forming groups in this way creates three distinct category of firms: (a) Stand-Alone Firms — these are firms whose directors do not sit on the board of any other firm (comprising 20% of domestic lending); (b) Intermediate Group Firms — these are firms that belong to intermediate size groups, defined as groups consisting of 2 to 50 firms (20% of domestic lending), and (c) Large Conglomerate Firms — these are firms which belong to the large conglomerates, defined as groups consisting of more than 50 firms each (38% of domestic lending). Ownership (and hence group) information is missing for 22% of domestic lending.

(v) *No. of Creditors.* This variable captures the number of creditors (banks) that a firm borrows from. Note that when constructing this variable, loans from foreign banks were also taken into account.

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[22]Karachi, Lahore, and Rawalpindi/Islamabad are coded as "big", Faisalabad, Gujranwala, Multan, Sialkot, Sargodha, Peshawar, Quetta, and Hyderabad are coded as "medium", and the remaining cities and towns are coded as "small".

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TABLE I
DATA DESCRIPTION

Panel A: Data Coverage			
No. of quarters	25		
No. of banks	91		
No. of unique firms	93,316		
No. of unique loans	112,685		
No. of loan-quarter observations	977,047		
	Mean	*Min*	*Max*
No. of loans in a quarter	42,428	22,361	54,554
No. of banks in a quarter	85.32	77	88

Panel B: Election Year Data				
	1993		1997	
	NA	P	NA	P
Number of seats	207	459	207	446
Number of candidates/ seat (mean)	6.94	8.17	8.51	9.14
(sd)	4.50	4.61	8.51	4.49

"NA" and "P" stand for national assembly and provincial assembly elections respectively.

TABLE II
SUMMARY STATISTICS

Panel A : Loan-level Variables					
Variable	Mean	S.D.	Min	Max	Obs.
	(1)	(2)	(3)	(4)	(5)
Loan Size ('000s of 1995 Pak Rs.)	6,669	89,298	0.62	15,000,000	112,685
Interest Rate [7]					
Default Percentage:					
Overall (un-weighted)	16.85	30.22	0	100	112,685
Less than a year (un-weighted)	3.27	10.05	0	100	112,685
Over a year (un-weighted)	14.81	29.73	0	100	112,685
Overall (weighted)	17.61	31.06	0	100	112,685
Less than a year (weighted)	3.06	8.13	0	100	112,685
Over a year (weighted)	16.06	30.96	0	100	112,685
Conditional On Default [1] :					
Recovery (un-weighted)	22.87	42.00	0	100	24,562
% Recovery (un-weighted)	13.09	31.05	0	100	24,562
Recovery (weighted)	23.58	42.45	0	100	24,562
% Recovery (weighted)	8.55	24.50	0	100	24,562
Loan Type [2]	*Fixed*	*Working Capital*	*Letter of Credit*	*Guarantees*	*Mx*
% of total lending	32%	49%	7%	7%	5%
# of loans (112,685 total)	47,663	48,993	8,941	5,826	1,262

[1] Recovery information is only available from April 2001 to April 2002

[2] "Loan type" is coded 1-5 representing fixed, working capital, lettter of credit, guarantees and non-fund loans

TABLE II

SUMMARY STATISTICS

Panel B: Borrower Type						
	(1)	(2)	(3)	(4)	(5)	(6)
Politically Connected	*No*	*Yes*				
% of total firms	77%	23%				
% of total lending	63%	37%				
# of loans (112,685 total)	83,555	29,130				
average loan size	5,687	9,483				
Size (percentile) [1]	*0-50*	*50-75*	*75-95*	*95-99*	*99-100*	
% of total firms						
% of total lending	6%	3%	13%	23%	55%	
# of loans (112,685 total)	47,354	23,455	26,090	9,775	6,011	
Location [2]	*Small*	*Medium*	*Large*	*Unclassified*		
% of total firms						
% of total lending	8%	12%	74%	6%		
# of loans (112,685 total)	19,700	16,735	58,135	18,115		
Foreign Firm [3]	*No*	*Yes*				
% of total firms						
% of total lending	96%	4%				
# of loans (112,685 total)	112,473	212				
Group Size [4]	*Stand Alone*	*Intermediate*	*Conglomerate*	*Unclassified*		
% of total firms						
% of total lending	20%	19%	39%	22%		
# of loans (112,685 total)	60,267	19,599	11,619	21,200		
Number of Creditors [5]	*1*	*2*	*3*	*>4*		
% of total firms						
% of total lending	30%	13%	9%	48%		
# of loans (112,685 total)	77,066	14,463	6,042	15,114		

[1] "Size" is coded 0-4 representing 0-50th, 50th to 75th, 75th to 95th, 95th to 99th and 99th to 100th percentiles

[2] "Location" is coded 0-2, representing cities with 0-0.5 million, 0.5-2 million and more than 2 million people.

[3] "Foreign" is coded 0-1 representing private and foreign firms.

[4] "Group size" is coded 1-3 representing firms whose director does not sit on the board of any other firms, firms that belong to groups of 2 to 50 firms, and firms that belong to groups of more than 50 firms.

[5] "No. of creditors" is coded 1-8 representing the number of creditors that the firm is borrowing from

Panel C : Politician Level Variables For Matched Politicians

Variable	Matched	
	Mean	S.D.
	(1)	(2)
Win	0.09	0.26
Percentage Votes	9.83	16.33
Victory Margin (conditional on victory)	20.53	16.50
Electoral Participation	36.60	10.46
Number of politicians	2,073	

TABLE III
POLITICAL LOAN CHARACTERISTICS

	Political Loan	Non-Political Loan	Difference
Average City Size	1.28	1.45	-0.17
	(0.11)	(0.10)	(0.03)
Average Group Size	1.68	1.37	0.31
	(0.11)	(0.07)	(0.04)
Average Number of Creditors	4.11	1.97	2.14
	(0.72)	(0.18)	(0.55)
Loan Type Share -			
Fixed	37.72	28.80	8.92
Working Capital	46.43	49.82	-3.39
Letter of Credit	6.45	7.71	-1.26
Guarantees	6.59	7.27	-0.68
Mx	2.81	6.40	-3.59

	Political Loan		Non-Political Loan	
	% of total leding	% of Industry type	% of total leding	% of Industry type
Industry Share -[1]				
Agriculture	1.4	27.2	2.3	76.0
Chemicals	5.1	53.1	2.6	46.9
Construction	8.3	49.1	5.0	50.9
Engineering / Machinery	4.1	20.9	9.0	79.1
Food	11.7	42.8	9.1	57.2
Finance	3.8	23.4	7.3	76.6
Leather	0.5	33.0	0.5	67.0
Paper	2.0	47.4	1.3	52.6
Transport	0.8	19.9	1.9	80.1
Textile	36.6	54.1	18.1	45.9
Energy	1.5	55.8	0.7	44.2
Other	3.1	35.5	3.2	64.5

Standard errors are clustered at the bank level.

[1]**Agriculture:** Agriculture; **Chemicals:** Cheramics, Foam, Lab, Match, Mineral, Plastic, Rubber, Chemicals, Coating; **Construction:** Building Material, Construction Metal, Sizing, Storage; **Engineering/ Machinery:** Appliances, Busimess Machinery, Electronics, Engeneering, Fan, Finishing, Mill, IT, Instruments, Power, Telecommunication, Electric, Pump, Capital Goods; **Finance:** Export/Import, Finance; **Leather:** Leather; **Paper:** Books, Packaging, Paper, Photo, Wood, Packages, Printing; **Transport:** Air transportation, Auto, Aviation, Land transportation, Sea transportation, Tourism, Transportation; **Textile:** Textile; **Energy:** Energy, Gas, Petroleum; **Other:** Cycle, Education, Government, Jewellers, Light, Misc. Service, Medical, Military, Sport, Stationery, Watch, Shopping Mall, Advertizing, Entertainment; **Unclassified:** All missings should be coded this .
* The industry shares are percentage of total classified loans.

TABLE IV
ARE POLITICAL LOANS SUBSIDIZED?

Dependent Variable	Log Loan Size		Net Loan Return		Default Rate (%)		Recovery Rate (%) Conditional on Default		Interest Rate (%)	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Political Loan	0.35	0.25	-6.76	-6.08	7.75	6.22	-0.96	-1.09	-0.18	0.09
	(0.13)	(0.06)	(2.18)	(2.46)	(2.72)	(1.98)	(1.78)	(1.14)	(0.16)	(0.05)
Constant	6.95	--	97.31	--	14.76	--	9.06	--	14.92	--
	(0.17)		(2.73)		(2.02)		(2.68)		(0.41)	
Controls[1]		YES		YES		YES		YES		YES
Rsq	0.01	0.33	0.01	0.28	0.01	0.29	0	0.24	0	0.43
No of Obs	112,685	112,685	89,223	89,223	112,685	112,685	24,562	24,562	89,223	89,223

Results based on cross-sectional data, standard error are clustered at the bank level, and all regressions are value-weighted except columns (1) and (2).

Net Loan Return = (1 - Default Rate) * (1+Interest Rate) + Default Rate * Recovery Rate

[1] The controls in columns (3) to (10) include 5 loan-type dummies, 5 firm size dummies, dummy for whether the borrower is a foreign firm, dummy for the number of creditors the firm has, 3 group size dummies, 134 dummies for each of the city/town of firm, 21 dummies for the industry of the firm, and 91 lender dummies. Since the LHS variable in columns (1) and (2) is size itself, we remove all size-related controls from the regression in column (2).

[2] There are 89,223 observations instead of 112,685 as interest rate data is not available for all banks.

[3] There are 24,562 observaions, because the data is conditional on a borrower having defaulted.

TABLE V
ARE POLITICAL FIRMS FAVORED BY GOVERNMENT BANKS ONLY? DEFAULT RATE

| | Default Rate (%) | | | | | |
	(1)	(2)	(3)	(4)	(5)	(6) Firms borrowing from both government and private banks
	Government Banks Only		Private Banks Only		All Banks	
Political Loan	10.92 (4.12)	9.13 (1.92)	-0.02 (0.27)	-0.78 (0.26)	-0.78 (0.26)	--
Political Loan * Government					9.91 (1.90)	1.4 (1.04)
Constant	19.87 (2.60)	--	6.05 (2.03)	--	--	--
Controls [1]	NO	YES	NO	YES	YES [2]	Firm Fixed Effects [3]
Rsq	0.02	0.3	0.004	0.15	0.33	0.78
No of Obs	61,897	61,897	50,788	50,788	112,685	18,819

Results based on cross-sectional data, standard error are clustered at the bank level

[1] The controls include 5 loan-type dummies, 5 firm size dummies, dummy for whether the borrower is a foreign firm, dummy for the number of creditors the firm has, 3 group size dummies, 134 dummies for each of the city/town of borrower, 21 dummies for the industry of the firm, and 91 lender dummies.

[2] Controls also include government dummy and all interractions with the government bank dummy.

[3] Regression includes a government dummy as well. Data restricted to firms that borrow from both government and private banks.

TABLE VI

ARE POLITICAL FIRMS FAVORED BY GOVERNMENT BANKS ONLY?
ACCESS TO CREDIT

Dependent Variable	Log Loan Size		
	(1)	(2)	(3)
	Data restricted to firms that borrow from both government and private banks		
Government	0.07	-1.24	-0.22
	(0.03)	(0.14)	(0.03)
Political Loan * Government	0.33	-0.37	0.11
	(0.05)	(0.22)	(0.06)
Government * Log Firm Size		0.14	
		(0.02)	
Political * Gov * Log Firm Size		0.06	
		(0.02)	
Government * Firm Default Rate			0.56
			(0.05)
Political * Gov * Firm Default Rate			0.25
			(0.09)
Firm Fixed Effect	YES	YES	YES
Rsq	0.81	0.82	0.82
No of Obs	10,854	10,854	10,854

Data restricted to firms that borrow from both government and private banks. A unit of observation is a firm-banktype pair, as all loans of a firm given by the same bank type are summed. There are thus 5,427 firm fixed effects and 10,854 total observations in the regression. We winsorize the change in log loan size at 1% level to ignore outliers.

TABLE VII

TESTING FOR POLITICAL STRENGTH AND PARTICIPATION

Dependent Variable	Log Loan Size			
	(1)	(2)	(3)	(4)
	Data restricted to borrowes who borrow from both government and private banks			
Government	0.07	0.07	0.07	0.07
	(0.03)	(0.03)	(0.03)	(0.03)
Political Loan * Government	0.28	0.29	0.29	0.68
	(0.05)	(0.05)	(0.05)	(0.20)
Political * Gov * % Vote	0.7			
	(0.47)			
Political * Gov * Victory Margin			0.56	
			(0.29)	
Political * Gov * Winner		0.67		
		(0.33)		
Political * Gov * Electoral				-0.96
				(0.53)
Firm Fixed Effect	YES	YES	YES	YES
Rsq	0.81	0.81	0.81	0.81
No of Obs	10,854	10,854	10,854	10,854

Data restricted to firms that borrow from both government and private banks. A unit of observation is a firm-banktype pair, as all loans of a firm given by the same bank type are summed. There are thus 5,427 firm fixed effects and 10,854 total observations in the regression. We winsorize the change in log loan size at 1% level to ignore outliers.

TABLE VIII
TIME SERIES TEST OF POLITICAL STRENGTH

	(1)	(2)	(3)
	Log Loan Size		
In Power?	-0.04	-0.07	-0.04
	(0.03)	(0.03)	(0.02)
In Power * Government	0.11	0.1	0.06
	(0.03)	(0.03)	(0.03)
Government	0.8	0.8	
	(0.03)	(0.03)	
Fixed Effects	Firm	Firm and Quarter	Firm*Bank-Type and Quarter
Rsq	0.79	0.8	0.89
No of Obs	18,272	18,272	18,272

Data restricted to those firms that actually experience a change in their "power" status due to elections. There are 1,511 such firms. The data is also restricted to only those quarters when an elected government was actually in power, i.e. we exclude "interim" quarters in between elections, and quarter when the army took over. The included quarter are: 1996 Quarter 2 and Quarter 3; 1997 Quarter 2 to 1999 Quarter 3. In any given quarter, the loans for a given borrower from a given bank type (government or private) are summed up. (996 borrowers always win and hence are not in this regression)

TABLE IX

TESTING FOR SOCIAL THEORY

Dependent Variable	Default Rate	Log Loan Size	Default Rate	Log Loan Size
	(1)	(2)	(3)	(4)
Political Loan * Government	10.47	0.36	11.68	0.34
	(1.84)	(0.05)	(2.88)	(0.08)
Political Loan * Government * Social Gov	-9.4	-0.21		
	(2.73)	(0.17)		
Political Loan * Government * Local			-2.54	-0.014
			(2.09)	(0.08)
Controls	YES[1]		YES[1]	
Firm Fixed Effect		YES		YES
Rsq	0.33	0.56	0.33	0.63
No of Obs	112,685	11,549	112,685	10,854

Data restricted to borrowers who borrow from both government and private banks in columns (2) and (4). A unit of observation is a firm-banktype pair, as all loans of a firm given by the same bank type are summed.

TABLE X
REAL OUTCOMES

	Data Restricted to Textile Firms							
	Exporter?				Log Exports		Log Export Productivity	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Borrower Default Rate	-0.22 (0.051)	-0.17 (0.060)						
Government Bank			-0.19 (0.08)		-0.79 (0.44)		-0.28 (0.18)	
Political Loan				0.05 (0.06)		0.05 (0.20)		-0.02 (0.09)
Political Loan * Government				-0.13 (0.07)		-0.64 (0.31)		-0.24 (0.15)
Constant	0.22 (0.029)							
Controls[1]		YES	YES	YES	YES	YES	YES	YES
Rsq	0.04	0.27	0.2	0.28	0.1	0.18	0.1	0.21
No of Obs	6,313	6,313	6,313	6,313	6,313	6,313	6,313	6,313

[1] The controls include 5 loan-type dummies, 5 firm size dummies, dummy for whether the borrower is a foreign firm, dummy for the number of creditors the firm has, 3 group size dummies, 134 dummies for each of the city/town of firm, and 91 bank dummies. When government dummy is reported, the bank dummies are not in the regression.

Export Productivity is exports divided by total loans of the firm. All Regressions are run at the firm level, and a firm is classified as government if it borrows from *any* government bank.