Corruption and Politicians: Rent-seeking in an Emerging Financial Market

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September 2004

Abstract

Corrupt politicians are often blamed for economic ills, particularly in less developed economies. Using a loan-level data set containing all corporate loans in Pakistan between 1996 and 2002, we investigate political corruption 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 than other firms. Such preferential treatment occurs exclusively in government banks; private banks provide no political favors. Investigating this further we find that government banks not only select bad politicians but conditional on selection, lend larger amounts to them. Moreover, the extent of political rent-seeking increases with the strength of the politician and whether he is in power, and falls with the degree of electoral participation in his constituency. The economy wide costs of the rent-seeking identified are estimated to be 0.3% to 1.9% of GDP every year.

I   Introduction

Corruption is a pervasive phenomena around the world and there is increasing recognition that it imposes substantial costs on the economy. Yet, despite a rich theoretical literature examining the causes and consequences of corruption, there is little empirical evidence on the specific channels through which it operates.[1] While cross country studies such as Mauro 1995 are extremely useful in linking broad proxies of corruption to poor economic outcomes, they do not detail how corruption is carried out, what factors promote or hinder it, or how the private gains from corruption compare to its aggregate costs.

This paper addresses these questions by using an extensive loan level data of more than ninety thousand firms to measure the extent and nature of political rent-seeking in the banking sector of Pakistan. We start by identifying a firm as "political" if any of its directors participated in an election. We then ask if these politically connected firms receive preferential treatment from the banks they borrow from, and find that not only do they receive forty percent larger loans but they also have fifty percent higher default rates on these loans.

These results suggest that politicians use their influence to expropriate rents from the banking sector in the form of larger loans that are infrequently repaid. This hypothesis receives further credence on finding that the entire preferential treatment is driven by government banks: Loans from government banks given to political firms have a ten percentage points higher default rate than loans from the same banks given to non-political firms. Private banks on the other hand display no such political bias.

The preferential treatment given to politicians is not simply a result of government banks selecting worse *types* of politicians, where type is proxied by higher default rates. Even when we perfectly condition for borrower type by using firm fixed effects and hence only exploit variation across 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. 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 come from constituencies with lower electoral participation. Moreover, even in the time series, as a politician goes from losing to winning an election he gets greater access to credit from government banks.

The above results highlight the political economy of corruption in Pakistan. The more powerful

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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.

and successful a politician is, the greater is his ability to influence and manipulate government banks. Politically powerful firms obtain rents from government banks by exercising their political influence on bank employees. 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 results offer a deeper understanding of how political corruption operates in practice. As this corruption afflicts the banking sector and hence distorts investment, it is likely to have significant negative consequences for the economy. Since our data reflects the *universe* of all corporate lending by the banking sector we can use our findings to estimate the aggregate costs of such corruption to the economy. As a lower bound we consider the dead weight loss associated with the increased taxation needed to bail out defaulted government loans. These costs are estimated at 0.15-0.30% of GDP each year. As a higher bound we consider the additional costs that arise if the defaulted amount is poorly invested i.e. only returns its book value or equivalently, is consumed by the borrower. By considering the market to book ratio for Pakistan and other emerging markets, we estimate that these costs are an additional 1.6% of GDP each year! Examining firm level export data from the textile sector indicates that political firms borrowing from government banks are indeed a lot less productive, suggesting that the higher estimates of aggregate cost are more appropriate.

This paper is related to the literature on corruption and specifically to state owned institutions as 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 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. 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. Moreover, since the data represents the entire banking sector, we are also able to provide estimates of the cost of corruption to the whole economy.

There are fewer studies that examine political rent-seeking at the micro-level, such as Fisman (2001), Johnson and Mitton (2003), and Sapienza (2003). Fisman estimates rents earned through political connections as measured by public-firm returns in the equity markets in Indonesia. Johnson and Mitton 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. While these results 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 estimates the economy-wide cost of such rent-seeking and Section VIII concludes.

II   Politics and Lending: The Institutional Environment

A.   Politicians and Corruption in Pakistan

Corruption, rent seeking, and political misgovernance are often cited as one of the biggest problems facing the Pakistani economy. *Transparency International,* an international non-government orga-

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nization, 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 world-wide in 1996. This makes Pakistan an obvious candidate to study the nature and consequences of corruption.

Politics in Pakistan has always been closely linked to corruption and rent-seeking. 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.[2]

In light of repeated accusations of political corruption from both inside and outside the country, 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".[3] 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."

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

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

B. The Banking Sector

The above discussion highlights the pervasiveness of corruption and the involvement of politicians, particularly with relation to state-owned banks. We therefore give a brief overview and history of the banking sector in Pakistan. In the 1950s and 1960s Pakistan had a liberalized banking structure open to all private (foreign and domestic) banks. However, this changed in the early 1970s when the government nationalized all private domestic banks. By 1990 government banks dominated the banking sector with 92.2% of total assets while the rest belonged to foreign banks. Foreign banks were not nationalized but limits were placed on the number of branches they could operate.

However, weaknesses and inefficiencies in the financial structure that emerged after nationalization forced the government to initiate a broad based program of reforms in the financial sector in 1991. These reforms included privatization of two of the five major nationalized banks; allowing entry to new private domestic and foreign banks; setting up of a centralized credit information bureau (CIB) to track loan-level default and other information;[4] issuance of new prudential regulations to bring supervision guidelines in-line with international banking practices (Basel accord), and granting autonomy to the State Bank of Pakistan that regulates all banks.

Despite these reforms and subsequent spurt in growth of the private sector, the role of the public sector remains fairly important constituting around 64% of domestic lending during our sample period. What is relevant from this paper's perspective is that state banks were increasingly plagued with poor performance particularly in terms of bad loans in their portfolio:

> "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.* Much of this bad debt is concentrated among a small number of influential borrowers."[5]

C. Politicization of State Owned Banks

Why are government banks more prone to political corruption as the preceding discussion highlighted? The answer is that the top hierarchy of government banks — both the board of directors and the president — is politically appointed. Career bankers who have been promoted up the

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

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

banks' hierarchy can reach at most a step below the presidency and therefore remain at the second tier of management or lower.

Given the organizational design of a government bank, it is easy to see then how lending decisions would be prone to political pressures and rent seeking. The politically appointed top tier of government banks control and influence 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. Given the control that politicians exercise over bank officials, they can get both preferential access to credit and potentially get away with higher defaults. 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 State Bank of Pakistan:

> "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."[6]

D.   A Mechanism for Political Rent Seeking

Although there may be a multitude of avenues for corruption, the above institutional description offers a specific mechanism for political corruption in banking: Politicians obtain rents through government bank loans that are "accumulated with the intention of not being returned".

Politicians 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 "political looting" would be hard to sustain in the long run. Second, the politicization of government banks allows politicians to exert influence and lead government banks to make bad loans.

Politicians have an advantage over other individuals seeking corrupt loans as they can use their political muscle rather than monetary bribes which may have larger private costs. However, it is

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

worth noting that even the 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.

Political rents arise not just by borrowing large amounts and defaulting but by remaining in default without repaying. How do rent-seekers avoid recovery especially when these loans are collateralized? The Pakistani setting suggests a couple of answers. First, litigation in general 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 borrower 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-borrower-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 borrowers 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).[7] 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.[8] 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 a borrower 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 borrowers (93,316) because a single borrower 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 borrowers. 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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[7]Foreign bank lending is excluded. Including them does not affect our results.

[8]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 borrower. For every loan, the data set contains the names and addresses of all directors of the borrowing 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" or "political" firm for short. 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 borrower is politically connected but our algorithm is unable to find a name match in the election data-base.[9] Type II error occurs when our algorithm matches a borrower to a politician but the match is incorrect.[10] However, as in classical measurement error, both types of errors only work against us. Any differences we find in borrowing patterns between politically connected and unconnected borrowers 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% 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 much bigger as they represent 37% of overall lending in the data.

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[9] This could be either due to different spellings of names (since the data is in english there are often non-unique spellings of the names) or if a borrower is politically connected not through it's directors but via a familial or other relationships with a politician. While our alogirthm tries to minimize the former error by ignoring different titles in names and different spellings, the latter issue is much harder to address.

[10] The election data only has the politician's full name but no other information such as the politician's father's name. Since different people may share the same 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.

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 borrower attributes: The main attribute we use is whether or not a borrower is politically connected. The table shows that while 23% of borrowers are politically connected they comprise 37% of overall lending. Panel B also presents other attributes of borrowers which will be important to condition on when analyzing whether politically connected borrowers 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.[11]

D. Methodology

To test if politically connected borrowers are given preferential treatment, our basic empirical specification is:

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

$$Y_{ij} = \alpha + \beta.Political_j + \gamma.X_{ij} + \varepsilon_{ij} \tag{1}$$

where Y_{ij} represents a measure of the "price" of a loan given by bank i to borrower j. $Political$ is a dummy for politically connected firms, and X_{ij} represents various observable loan characteristics such as location, industry, borrower size etc. β in (1) captures the coefficient of interest — i.e. the relative treatment a politically connected borrower receives. If X_{ij} are included, then β can be thought of as estimating differences between political and non-political loans, conditioning on the observable loan characteristics. All the regressions will be weighted by loan size and errors clustered at the bank level to account for any correlation between loans issued by the same bank.

In addition to the above specification we also examine whether the "political effect" varies by loan characteristics such as the type of lender and by attributes of the borrowing politician such as his political strength and whether he is elected or not. Apart from providing a more nuanced understanding of how politicians earn rents, examining such heterogeneity provides support for a causal interpretation of the political effect in (1). i.e. that β captures the effect of a firm exercising its political influence. Specifically, a concern is that despite conditioning on loan and borrower characteristics, the coefficient on β is biased due to borrower-level unobservables. For example, one may worry that more "influential firms" , where influence is an unobserved firm characteristic, are able to obtain preferential treatment and also prefer to have politician's on their boards. Therefore if one were to include firm influence in (1) than the size and significance of β would disappear. As we will discuss in more detail later, such concerns are unlikely since the political effect holds under a variety of more demanding specifications, including those which control for all firm level unobservables by using borrower level fixed effects.

IV   Do Politically Connected Borrowers get Favorable Treatment?

This section examines whether politically connected firms receive preferential treatment through subsidized loans and the form of such subsidies i.e. do appear in the form of lower interest rates, higher default rates and/or greater access to credit?

Before presenting regression results Table III compares various loan attributes between politically connected and unconnected borrowers. This comparison reveals significant differences between loans to the two types: Political loans tend to be given in slightly smaller cities, to borrowers that belong to larger business groups and have a greater number of creditors. While shorter-term work-

ing capital loans are the most common types of loans, politically connected borrowers 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 borrowers that are politically connected 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.

Basic Result:

Table IV shows the results of estimating (1) on each outcome of interest. Our 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:

$$\eta = (1 + r)(1 - \delta) + \delta\rho \qquad (2)$$

We run the regressions both with and without the conditioning variables. It is important to point out that we condition on a large set of variables in a non-parametric fashion. Specifically, we include 5 loan-type dummies for whether the loan is fixed, working capital etc., 5 borrower size dummies for which size category the loan belongs to, a dummy for whether the borrower is a foreign firm, 8 dummy variables for the number of creditors the borrower has (from 1 to greater than 7), 3 group size dummies, 134 dummies for each of the city/town of the borrower, 21 dummies for the industry of the borrower, and 91 dummies for each bank. In total, there are 268 dummy variables in this regression specification. Given the detailed and non-parametric nature of our controls, we are confident that our results are not affected by the differences in loan characteristics between political and non-political loans noted in Table III.

Columns (1) and (2) in Table IV show that political loans are 40% larger than non-political ones. Conditioning on a large set of variables ensures that this difference is not driven by covarying factors such as location, industry type or group affiliation of the borrower. This provides the first evidence of preferential treatment to the politically connected in terms of better access to credit.

Columns (3) and (4) show that in addition to better access, the politically connected also face significantly lower "prices": The rate of return on political loans is 6-7% points lower and is robust to various loan level characteristics. The difference is both statistically and economically

significant.[12]

A break down of the net interest rate into its three components in Columns (5) through (10) shows that the preferential treatment of political loans is driven primarily by the higher default rates that they enjoy. Column (5) shows that politically connected borrower's 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. A possible concern in interpreting this difference is that we may be capturing other unobserved aspects of political loans. For example, one may argue that political loans are for "social" purposes — such as loans to agriculture, rural areas, or small firms — and as a result face higher default risk. However, Column (6) shows that the difference only decreases slightly to 6% points after inclusion of a variety of variables that proxy for social characteristics such as whether the loan is made in smaller cities, to smaller (by size, number of creditors, or business group affiliation) borrowers, in industries that may generate greater social returns, or by particular type of lenders with social objectives.

In contrast to default rates, Columns (7) through (10) show that there is little difference between the recovery rates on defaulted loans and the interest rates between political and non-political loans. Thus the preferential treatment in the "price" of loans seen in columns (3) and (4) is driven by the politically connected getting away with much higher default rates, rather than lower recovery or interest rates.

The results of Table IV suggest that politically connected borrowers 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 economic rents of unconnected rent earners. 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. Despite robustness to an extensive set of variables, one may be concerned that this preferential treatment effect is not capturing the exercise of political power but an omitted borrower attribute. As our subsequent sections will show, such concerns are unlikely.

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[12]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%.

V Political Rents and the Role of Government Banks

If the preferential treatment in Table IV is driven by the exercise of political power one would expect it to be prevalent in lenders susceptible to political coercion. Given the institutional discussion in section II, government banks are a natural candidate for political coercion with their board of directors and presidents being political appointees. We now examine whether the preferential treatment to politically connected firms varies by the type of bank. Our measures of preferential treatment include both the default rate and loan size.

A. Default rates:

Columns (1) through (5) in Table V show that the higher default rates that politicians enjoy arise *entirely* due to loans from government banks. Columns 1-2 restrict the data to loans from government banks only and show that loans to the politically connected have 11% points higher default rates. Column (2) shows that this result remains robust to conditioning on loan characteristics such as borrower attributes, lender and type of loan.

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

Column (5) shows the same result in the data that includes both government bank and private bank loans. The coefficient of interest is the double interaction term 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.

Together these results provide further support for our causal interpretation that the rents identified in Table IV arise through the exercise of political power since they only appear for , lenders susceptible to political pressures.

An interesting aside is that while the government banks do treat the politically connected 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.[13]

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[13]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

In this paper our focus is only on political rents.

While the higher default rates enjoyed by the politically connected arise solely through government bank loans, what is the margin on which government banks perform poorly?. In particular, do they face higher political default because they select worse politically connected borrowers or because the *same* politically connected borrower is able to default more on his government bank as compared to private bank loan? Column (6) checks for the significance of the latter by comparing differential default rates for the *same* borrower across the two types of banks. We do so by restricting the sample to firms that borrow from both types of banks and using borrower fixed effects. Column (6) shows that once all borrower attributes such as their average default etc. are taken into account, government banks only face a 1.4% points higher default differential between the political and non-political as compared to the private banks. This suggests that the higher default on political loans by government banks primarily arises because these banks exclusively lend to the worst (in terms of default rates) of the politically connected firms. Only a small part of the higher government default rate arises because the same politically connected firm chooses to default more on its government as compared to private bank loan.

B.   Access to Credit:

We now examine whether the preferential access to credit for the politically connected identified earlier also arises exclusively through government bank loans. Table VI shows that this is indeed the case. In contrast to Table V, all regressions in Table VI include borrower fixed effects and are restricted to firms that borrow from both types of banks. This provides cleaner estimates of the differential political preference between government and private banks. In particular, when examining loan amounts disbursed, unobserved borrower level characteristics that proxy for a borrower's demand for credit are likely to be important determinants of how much is lent. Not controlling for these characteristics may bias our results. By including borrower fixed effects we are able to condition on all such borrower-specific unobservables and our estimates are more likely to reflect differential treatment rather than needs of the borrower.

In addition, since we are interested in a given borrower's total loan uptake from the two types of banks, we aggregate our observations to the borrower and bank type level. Thus for every borrower we have two observations of our dependent variable: The total amount he borrows from

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higher default faced by government banks is due to bad lending to "influential" borrowers.

all government banks and that from all private banks. This aggregation allows us to capture borrows that have greater access to credit both because they borrow more from a given bank and borrow from a greater number of banks.

Column (1) in Table VI shows that while government banks provide larger loans than private banks on, they lend even larger amounts — 39% more — to the politically connected. Recall that this specification is very demanding since it controls for all borrower level unobservables i.e. the same firm borrows substantially more from government banks than private ones if it is politically connected. Moreover, the use of borrower 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 of the borrower and not differences in the type of the borrower. Moreover, as this preferential treatment stems from government banks, this supports our contention that it arises through the exercise of political power.

Columns (2)-(3) in Table VI examine the result in Column (1) further. We ask whether government banks are more likely to lend more to particular types of firms. Column (2) shows that of the set of firms that borrow from both types of banks, government banks lend more to larger politically connected borrowers (the triple interaction). A standard deviation increase in borrower size as measured by the logarithm of the total amount he borrows, is associated with 11.5% greater amount that the politically connected are able to borrow from government as compared to private banks, i.e. the political preference result in government banks is even stronger for larger political borrowers.

Column (3) sheds further light on the nature of political rent provision: Government banks systematically lend more to the worst of the politically connected borrowers. The coefficient of interest is the triple interaction term in Column (3) which captures whether government banks, in comparison to private ones, lend differentially more to the politically connected firms with worse overall default rates. The results show 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 together 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 borrowers that default not because they face adverse business shocks but rather because they *can* default. The worst of such politically connected borrowers — those that default a lot — exclusively

borrow from government banks. Since private banks are far less susceptible to direct political influence, it is not surprising that such borrowers are not lent to by private banks. Moreover, even after accounting for this initial poor selection, we find that government banks provide greater rents by lending more to the politically connected and even more so to the worst of the politically connected.

VI Do Rents vary with Political Strength and Participation?

Our previous results have shown that the politically connected enjoy rents by defaulting more on loans from government banks. In this section we explore whether this varies by the strength of the politician and the degree of political participation. We also ask whether winning an election has an impact the ability to earn rents.

A.   Political Strength:

Do stronger politicians default more on government bank loans to their firms as compared to weaker politicians? In order to answer this question we construct three measures of a politician's strength. The first, $PercentageVotes$, is the percentage of total votes the politician wins. The second, $Winner$, is fraction of times the politician has won. The third measure, $VictoryMargin$, is the difference in percentage votes between the winner and runner up in the election if the politician won and is 0 if he lost. 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.

Columns (1)-(3) In Table VII present the results for each of these variables with the amount of loan received as the dependent variable. The coefficient of interest is the triple interaction term that reveals whether stronger politicians are able to earn even higher rents from government banks. Before describing the results in Table VII we should note that we found no robust differences in default *rates* on government bank loans between politicians along these measures of political strength. Instead, the nature of preferential treatment to stronger politicians manifests itself in terms of preferential *access* to government loans and eventually greater *amounts* of default.

Table VII shows that along all measures of a politician's strength, firms with stronger politicians on their boards borrow more from government banks. As in Table VI we control for all borrower-level attributes, observable or not, that may affect loan demand by including borrower level fixed effects in the restricted sample of firms that borrow from both private and 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 firms 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? Column (4) provides evidence that such checks are effective. In constituencies with 10 % points higher participation in elections — as measured by the fraction of registered voters who cast their vote — politicians receive 9% smaller loans from government banks than they would have otherwise. Conversely, political corruption is significantly worse in weaker political environments, a point that has been highlighted by others at a cross-country level (Shleifer and Vishny 1993). Including borrower-level fixed effects ensures this result is not biased by unobserved differences in borrower credit demand.

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 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 when an elected government was in power[14] and to only those politically connected borrowers that experienced a change in whether their politician was in power during our data period. While we found 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 (though not rate) of default.

Column (1) in Table VIII shows that controlling for all borrower-level factors, quarters during

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

which a politician is in power, are associated with a 12% increase in the amount his firms is able to borrow from government banks as compared to private ones. 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 secular time trends since it is robust to the inclusion of dummy variables for each quarter.

Column (3) subjects the result to an even more demanding empirical specification. While in Column (1) we controlled for all borrower-level differences such as those in credit demand, Column (3) goes a step further and includes borrower fixed effects interacted with bank-type (government or private) dummies as well. Thus any omitted factor at the level of the borrower and bank type is accounted for. For example, one may posit that government banks believe (rightly or not) that politicians invest in projects with higher social good or that conversely politicians explicitly borrow for projects with higher declared social value from government banks and therefore the fact that they are lent larger amounts is not reflective of rent provision but of an attempt to raise overall welfare. Column (3) shows that this is unlikely since even after taking into account how much more a politically connected borrower is able to borrow from government relative to private banks, such a borrower increases his borrowing from government banks when his politician is in power. This suggest that the more likely explanation is rent-seeking through the exercise of political power.[15]

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 political rents.

VII   The Costs of Corruption

This section estimates costs of rent-seeking to the economy. The estimates are tentative but suggest how large an impact a particular form of corruption may have.

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[15]One could still argue that the results in column (3) do not reflect rent-seeking if politicians generate more social returns when they are in power. We believe that this is unlikely and that the rent-seeking explanation is more plausible considering all our results.

A.   Understanding Default

In arriving at cost estimates one has to both provide a sense of how actual lending differs from socially optimal lending patterns and the nature of distortions such non-optimal lending imposes on the economy. For example, even high levels of default could be (constrained) socially optimal if they arise due to lending in high social return projects that would not have been privately funded.

In terms of lending benchmarks, considering the private sector as efficient produces conservative cost estimates. This suggests that the 6% default rate on private banks is the "natural" rate of default. This is plausible since there is no evidence of politicians influencing private banks and there is evidence that private banks in the Pakistani economy are strict in screening new loans, monitoring existing ones, and display little evidence of related lending (Mian, 2004).

Since it is unlikely that private banks lend to generate social returns, one has to next consider whether the greater government bank default is due to "social investments". Estimating the prevalence of social default is harder since a skeptic can always claim that politicians work for social good. However, in the context of Pakistan, such a prior would be very misplaced given that the last few governments have all been dismissed on charges of political corruption. Moreover, our results suggest that social default is not prominent. First, all our previous findings are robust to and hardly change when non-parametrically conditioning on an extensive set of variables which proxy for social attributes of the loan. 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, our results are robust to the inclusion of borrower-level fixed effects as well as such fixed effects interacted with bank-type. Therefore, to the extent that social investments are specific to borrowers or to borrowers from government banks, our results are unlikely to be driven by social investments. Finally, politicians generally belong to the richest segment of the society, and private lending with high default rates to such a rich segment of the society is unlikely to be socially beneficial.

B.   Estimating Costs

In view of the above, the defaulted amount in government bank lending, 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 24% on government banks loans, this suggests that 18% of lending

is inefficient. Given total government bank lending of Rs 190 billion (\$ 3.2 billion) in 2002, this comes to Rs. 34.2 billion annually.

What costs does this impose on the economy? While one can imagine a variety of distortions, we present two types of costs which represent a lower bound and a higher (though by no means upper) bound. The two differ in assumptions about the economy-wide rate of return on the defaulted amount. For the lower bound we assume that this return is the same as the return to capital in the economy. In contrast, for the higher bound we assume that the aggregate productive return is zero.

Lower Bound:

Assuming the defaulted amount imposes no investment distortions, it only represents a transfer of wealth to the defaulter. Since this default arises in government banks which face soft budget constraints, this transfer is from the tax paying public and therefore imposes dead weight losses (DWL) on the economy. We use conservative DWL estimates that put the marginal costs of taxation at around 20% to 40% for 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 numbers gives a lower bound cost of Rs. 6.8-13.7 billion each year (20-40% of government bank default of Rs 34.2 billion above the "natural default" of 6%), or around 0.15-0.3% of GDP annually.

Higher Bound:

It is unrealistic to assume that defaulted loans are invested at the same rates of return as in the economy. Since defaulting borrowers face lower costs of capital, they would be willing to invest at lower than normal returns to capital. While one could make assumptions about this return, it is simpler to present a higher bound where the defaulted amount is assumed to generate no aggregate returns. This includes two different scenarios which produce similar costs. The first represents extreme "over-investment". This is a situation where the defaulting borrowers invest far beyond what is optimal in a given sector because they face subsidized credit. In doing so, while they generate positive returns for themselves, the economy as a whole may be no better off because investment is diverted from other sectors which have higher returns. In addition, other investors not benefiting from the subsidized credit may be forced to produce below capacity[16] or shut down. The second situation is one of pure looting, where the defaulted amount is not invested but simply consumed and hence generates no investment returns for the economy.[17]

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[16] While this may be due to entirely different reasons, it is interesting to note that firms in Pakistan commonly produce at far below plant capacity.

[17] Note that in well-functioning credit markets, this "extra consumption" would not affect aggregate investment

The higher bound is therefore 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 present discounted value of the investment net of the investment amount (since that represents a current welfare gain). Using a Market to Book ratio for Pakistan estimated at 2.96 (see International Finance Corporation's emerging market database — EMDB), this gives annual costs of Rs. 67 billion, or 1.6% of GDP each year. This is estimated as $(2.96 - 1) * Rs \, 34.2 \, billion$ where the latter amount is our estimate of inefficient government lending i.e. the defaulted amount in excess of the default on private banks. Combining with the previous DWL costs we obtain a higher bound of 1.9% of GDP. Although this estimate is large, it is comparable to that in cross-country studies (Mauro, 1995).

The Quality of Government Lending:

While it is hard to establish which bound is more realistic without additional assumptions, there is evidence that government loans generate lower investment returns. Anecdotes suggest looting was not uncommon in loans given to capital-intensive or industries the government was promoting such as textiles. Instead of actually investing in these industries, 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 IX 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 lending and political data.

Before presenting the results on government lending quality, Columns (1)-(2) first show that our

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.

quality measures are indeed related to borrowing performance. Borrowers in the textile industry with higher default rates are less likely to be exporting firms. 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, loans 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 IX thus supports our contention that government lending, particularly to the politically connected is likely to be of poorer quality.

Our costs estimates assume two extremes — either normal returns to investments on the defaulted amounts or no returns at all. While our results suggest defaulted amounts are unlikely to earn the same rate of return as in the economy, reality lies somewhere in between the 0.15 to 1.9% of GDP costs we have estimated. In either case this represents a large cost to the economy and underlines the significance of the problem.

VIII   Conclusion

This paper has tried to elaborate on the nature and consequences of corruption 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 corruption 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, than our results suggest a feedback mechanism where the influential individuals, particularly the most corrupt, progressively increase their wealth and influence. How the nature and extent of rent-seeking affects the political environment of an economy presents another interesting direction of future enquiry.

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.

Borrower 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.[18] 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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[18] 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 borrowers	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

	(1)	(2)	(3)	(4)	(5)	(6)
Panel B: Borrower Type						
Politically Connected	*No*	*Yes*				
% of total borrowers	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 borrowers						
% 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 borrowers						
% 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 borrowers						
% of total lending	96%	4%				
# of loans (112,685 total)	112,473	212				
Group Size [4]	*Stand Alone*	*Intermediate*	*Conglomerate*	*Unclassified*		
% of total borrowers						
% 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 borrowers						
% 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 / Machiner	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 borrower size dummies, dummy for whether the borrower is a foreign firm, dummy for the number of creditors the borrower has, 3 group size dummies, 134 dummies for each of the city/town of borrower, 21 dummies for the industry of the borrower, 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 conditioal on a borrower having defaulted.

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

	Default Rate (%)				
	(1)	(2)	(3)	(4)	(5)
	Government Banks Only	Government Banks Only	Private Banks Only	Private Banks Only	All Banks
Political Loan	10.92	9.13	-0.02	-0.78	-0.78
	(4.12)	(1.92)	(0.27)	(0.26)	(0.26)
Political Loan * Government					9.91
					(1.90)
Constant	19.87	--	6.05	--	--
	(2.60)		(2.03)		
Controls [1]	NO	YES	NO	YES	YES[2]
Rsq	0.02	0.3	0.004	0.15	0.33
No of Obs	61,897	61,897	50,788	50,788	112,685

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

[1] The controls include 5 loan-type dummies, 5 borrower size dummies, dummy for whether the borrower is a foreign firm, dummy for the number of creditors the borrower has, 3 group size dummies, 134 dummies for each of the city/town of borrower, 21 dummies for the industry of the borrower, 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 borrowers who borrow from both government and private banks. A a borrower-banktype pair, as all loans of a borrower given by the same bank type are summed. There are thus 5,527 borrower fixed effects observations in the regression.

TABLE VI

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

Dependent Variable	Log Loan Size		
	(1)	(2)	(3)
	Data restricted to borrowes who 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 Borrower Size		0.14	
		(0.02)	
Political * Gov * Log Borrower Size		0.06	
		(0.02)	
Government * Borrower Default Rate			0.56
			(0.05)
Political * Gov * Borrower Default Rate			0.25
			(0.09)
Borrower Fixed Effect	YES	YES	YES
Rsq	0.81	0.82	0.82
No of Obs	10,854	10,854	10,854

Data restricted to borrowers who borrow from both government and private banks. A unit of observation is a borrower-banktype pair, as all loans of a borrower given by the same bank type are summed. There are thus 5,427 borrower 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)
Borrower 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 borrowers who borrow from both government and private banks. A unit of observation is a borrower-banktype pair, as all loans of a borrower given by the same bank type are summed. There are thus 5,427 borrower 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	Borrower	Borrower and Quarter	Borrower* Bank-Type and Quarter
Rsq	0.79	0.8	0.89
No of Obs	18,272	18,272	18,272

Data restricted to those borrowers who actually experience a change in their "power" status due to elections. There are 1,511 such borrowers. 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
REAL OUTCOMES

	Exporter?		Exporter?		Log Exports		Log Export Productivity	
	Data Restricted to Textile Firms							
	(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 borrower size dummies, dummy for whether the borrower is a foreign firm, dummy for the number of creditors the borrower has, 3 group size dummies, 134 dummies for each of the city/town of borrower, 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 borrower. All Regressions are run at the borrower level, and a borrower is classified as government if it borrows from any government bank.